



Adriana Breda

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

I've had a career with a high degree of internationalization since I have obtained a predoctoral scholarship to work with Dr. Vicenç Font at the University of Barcelona, I worked at universities in Brazil, Chile, Ecuador, Panama and Spain and I have also participated in projects from Brazil and Spain.

My research lines are the Ethnomatematics and the development of competences in training mathematics teachers.

My master's degree in 2013 researched about deferments perspectives in which ethnomatematics can be conceived, after in this line I published some papers and participated in projects related with the Ethnomatematics. On the other hand, my doctoral thesis in 2016 had as main objective finding out the innovations and their justifications within the Brazilian Professional Master's Program in Mathematics (PROFMAT) and was related to the research line about development of competences in training mathematics teachers. During my pre-doctorate period, I took part in the "Institutional Program of Doutorado Sanduíche no Exterior - PDSE of CAPES (Brazil)" to stay at the University of Barcelona for 10 months (from 09/2014 to 06/2015) and I had as foreigner supervisor to Dr. V. Font. Besides that, i have participated in an international project (2012-2014) in cooperation between Spain, Italy, Colombia and Brazil on innovation in Science and Mathematics classes.

In the last two years I am codirector of 2 doctoral thesis project (in the PhD program "Teaching and Learning of Sciences, Languages, Arts and Humanities" of the Universitat de Barcelona) and director of 14 master's degree projects (Master in Teaching in Secondary School of Ecuador, specialisation in Mathematics, of the Universidad de Barcelona). The total publications in the Web of Science during the period 2015-2018 are 6 articles, the sum of times cited is 12, the average citations per item are 2; no publication is in the first quartile (which is usual in the area of Mathematics Education) and the h-index is 2. In Scopus presented 4 articles and the total citations is 12. Other indicators of the quality and dissemination of the results of my research activity are the h-index and i10 of Google Scholar . with date January 30, 2019, the total number of my citations is 222, the h-index is 8 and the index i10 is 7.

In the period 2016-18 I am working in the line of research about the development of a program based on competences in pre-service training of secondary mathematics teachers. In this line of research, I am a member of one R & D projects of the National Research Plan of Spain and one R & D projects of ICE-UB. My scientific production has been very intense in the last 3 years and includes, among others, 8 articles published in journals indexed in the Journal Citation Reports of the WOS and / or SCImago Journal Rank (SJR of SCOPUS). In addition, they have been published in the most important journals in the area of Mathematics



Education, (International Journal of Science and Mathematics Education, Eurasia Journal of Mathematics, Science and Technology Education, BOLEMA, etc.). On the other hand, I have presented communications in the most important international congresses in Mathematics Education (RELME, CIBEM, PME, CERME, SEIEM, etc.). I have also been a guest lecturer in "RELME31(Peru)", "XIII Encuentro Métodos de Enseñanza de la Matemáticas (Chile)", "RELME32 (Colombia)" and "Seminarios de Postgrado en Chile".



General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

The total publications in the Web of Science during the period 2015-2018 are 6 articles and 4 articles in Scopus (14 citaciones and h-index is 2), the sum of times cited in WoS is 12, the average citations per item are 2.0; no publication is in the first quartile (which is usual in the area of Mathematics Education) and the h-index is 2 . Other indicators of the quality and dissemination of the results of my research activity are the h-index and i10 of Google Scholar . with date January 6, 2018, the total number of my citations after 2012 is 206, the h-index is 8 and the index i10 is 7. In this moment i have 2 articles (SCOPUS) in press in the Acta Scientiae Journal and Educação e Pesquisa Journal.

Adriana Breda

Surname(s): **Breda**
Name: **Adriana**
ORCID: **0000-0002-7764-0511**
Personal web page: **<http://adrianabreda.wixsite.com/abreda>**

Current professional situation

Employing entity: Universitat de Barcelona **Type of entity:** University
Department: Departamento de Educación Lingüística y Literaria, y Didáctica de las Ciencias Experimentales y de la Matemática, Facultad de Educación
Professional category: Postdoctoral **Educational Management (Yes/No):** No
Start date: 22/01/2019
Type of contract: Temporary employment contract **Dedication regime:** Full time
Performed tasks: Investigación y Tutorías

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad de Panamá	Docente	01/08/2018
2	Universidad Nacional de Educación (UNAE)		01/03/2018
3	Universitat de Barcelona		01/02/2017
4	Universidad de Los Lagos		01/01/2016
5	Universidad Estadual do RS		01/10/2012

- 1** **Employing entity:** Universidad de Panamá **Type of entity:** University
Professional category: Docente
Start-End date: 01/08/2018 - 15/01/2019 **Duration:** 6 months
- 2** **Employing entity:** Universidad Nacional de Educación (UNAE) **Type of entity:** University
Start-End date: 01/03/2018 - 31/12/2018 **Duration:** 1 year
- 3** **Employing entity:** Universitat de Barcelona **Type of entity:** University
Start-End date: 01/02/2017 - 31/10/2018 **Duration:** 2 years
- 4** **Employing entity:** Universidad de Los Lagos **Type of entity:** University
Start-End date: 01/01/2016 - 31/12/2017 **Duration:** 2 years

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CURRÍCULUM VÍTAE NORMALIZADO

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5**Employing entity:** Universidad Estadual do RS**Start-End date:** 01/10/2012 - 01/10/2013**Duration:** 1 year



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

1 University degree: Higher degree

Name of qualification: Graduation in Bacharel en Ciencias Actuariales

Degree awarding entity: Universidade Federal do Rio Grande do Sul, UFRGS, Brasil

Type of entity: University

Date of qualification: 21/12/2016

2 University degree: Doctorate

Name of qualification: Ph.D. in Educación en Ciencias y Matemática

Degree awarding entity: Pontificia Universidade Católica do Rio Grande do Sul, PUCRS

Type of entity: University

Date of qualification: 28/03/2016

3 University degree: Master

Name of qualification: Master's in Educação en Ciencias y Matemática

Degree awarding entity: Pontificia Universidade Católica do Rio Grande do Sul, PUCRS

Type of entity: University

Date of qualification: 24/03/2011

4 University degree: Higher degree

Name of qualification: Graduation in Licenciatura en Matemática

Degree awarding entity: Universidade Federal do Rio Grande do Sul, UFRGS

Type of entity: University

Date of qualification: 14/12/2007

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Spanish	A1	A1	A1	A1	A1
Portuguese	A1	A1	A1	A1	A1
Italian	A1	A1	B1	B1	B1
Catalan	A2	A2	B2	B2	B2
English	B2	A2	B2	B2	B1



Teaching experience

General teaching experience

- 1** **Name of the course:** Estrategias Didácticas para la Enseñanza de las Matemáticas
University degree: Diplomado de Matemáticas
Start date: 18/08/2018 **End date:** 15/12/2018
Entity: Universidad de Panamá **Type of entity:** University
Faculty, institute or centre: Matemáticas
- 2** **Name of the course:** Trabajo de fin de Máster
University degree: Máster de Formación del Profesorado de Secundaria de Ecuador, especialidad de Matemáticas
Start date: 04/2017 **End date:** 08/2018
End date: 05/10/2018
Entity: Universitat de Barcelona **Type of entity:** University
- 3** **Name of the course:** Universidad Nacional de Educación, UNAE, Ecuador. Vínculo institucional 2018 - 2018
Vínculo: Outro, Enquadramento Funcional: Professor e pesquisadores convidado, Regime: Dedicação exclusiva.
Atividades 03/2018 - 05/2018 Ensino, Educación General Básica, Nivel: Graduação Disciplinas ministradas
Enseñanza Y Aprendizaje De Las Matemáticas I 03/2018 - 05/2018 Ensino, Educación General Básica, Nivel:
Graduação Disciplinas ministradas Aritmética y Geometría 03/2018 - 05/2018 Ensino, Educación General Básica,
Nivel: Graduação Disciplinas ministradas Inclusión, Diversidad E Interculturalidad En Instituciones Educativas
University degree: Educación General Básica
Start date: 01/03/2018 **End date:** 31/05/2018
End date: 31/05/2018
Entity: Universidad Nacional de Educación (UNAE) **Type of entity:** University
Faculty, institute or centre: EDUCACIÓN
- 4** **Name of the course:** Aritmética y Geometría
University degree: Educación General Básica
Start date: 01/03/2018 **End date:** 31/05/2018
End date: 31/05/2018
Entity: Universidad Nacional de Educación (UNAE)
- 5** **Name of the course:** Enseñanza Y Aprendizaje De Las Matemáticas I
University degree: Educación General Básica
Start date: 01/03/2018 **End date:** 31/05/2018
End date: 31/05/2018
Entity: Universidad Nacional de Educación (UNAE)
- 6** **Name of the course:** Geometria I
University degree: Pedagogía en Matemáticas y Informática
Start date: 01/09/2017 **End date:** 20/12/2017
End date: 12/2017
Entity: Universidad de Los Lagos **Type of entity:** University



- 7** **Name of the course:** Introducción al Calculo
University degree: Ingeniería Civil y informática
Start date: 01/09/2017 **End date:** 20/12/2017
End date: 12/2017
Entity: Universidad de Los Lagos **Type of entity:** University
- 8** **Name of the course:** Seminario de Tesis II
University degree: Magister en Educación Matemática
Start date: 08/2017 **End date:** 12/2017
End date: 12/2017
Entity: Universidad de Los Lagos **Type of entity:** University
- 9** **Name of the course:** Introducción a la Didáctica de la Matemática
University degree: Máster de Formación del Profesorado de Secundaria de Ecuador, especialidad matemáticas
Start date: 04/2017 **End date:** 08/2017
End date: 08/2017
Entity: Universitat de Barcelona **Type of entity:** University
- 10** **Name of the course:** Geometria II
University degree: Pedagogía en Matemáticas y Informática
Start date: 03/2017 **End date:** 07/2017
End date: 07/2017
Entity: Universidad de Los Lagos **Type of entity:** University
- 11** **Name of the course:** Introducción a la matemática
University degree: Ingeniería Civil y informática
Start date: 03/2017 **End date:** 07/2017
End date: 07/2017
Entity: Universidad de Los Lagos **Type of entity:** University
- 12** **Name of the course:** Seminario de Tesis I
University degree: Magister en Educación Matemática
Start date: 03/2017 **End date:** 07/2017
End date: 07/2017
Entity: Universidad de Los Lagos **Type of entity:** University
- 13** **Name of the course:** Pre-cálculo II
University degree: Ingeniería Civil y informática
Start date: 11/2016 **End date:** 01/2017
End date: 01/2017
Entity: Universidad de Los Lagos **Type of entity:** University
- 14** **Name of the course:** Fundamentos didácticos de la geometría
University degree: Magister en Educación Matemática
Start date: 08/2016 **End date:** 01/2017
End date: 01/2017
Entity: Universidad de Los Lagos **Type of entity:** University
- 15** **Name of the course:** Geometría I
University degree: Pedagogía en Matemáticas y Informática
Start date: 08/2016 **End date:** 01/2017



End date: 01/2017

Entity: Universidad de Los Lagos

Type of entity: University

16 Name of the course: Resolución de Problemas

University degree: Doctorado en Educación Matemática

Start date: 08/2016

End date: 01/2017

End date: 01/2017

Entity: Universidad de Los Lagos

Type of entity: University

17 Name of the course: Fundamentos Didácticos del Álgebra

University degree: Magister en Educación Matemática

Start date: 04/2016

End date: 08/2016

End date: 08/2016

Entity: Universidad de Los Lagos

Type of entity: University

18 Name of the course: Metodología de la investigación

University degree: Pedagogía en Matemáticas y Informática

Start date: 04/2016

End date: 08/2016

End date: 08/2016

Entity: Universidad de Los Lagos

Type of entity: University

19 Name of the course: Seminario de Lecturas en Educación Matemática

University degree: Doctorado en Educación Matemática

Start date: 04/2016

End date: 08/2016

End date: 08/2016

Entity: Universidad de Los Lagos

Type of entity: University

20 Name of the course: Física Aplicada A - Unidade São Francisco de Paula

University degree: Gestão Ambiental

Start date: 12/2012

End date: 12/2012

End date: 09/2012

Entity: Universidade Estadual do Rio Grande do Sul,
UERGS

Type of entity: University

21 Name of the course: Pesquisa VI: Estruturação do TCC - Unidade São Francisco de Paula

University degree: Grado en Pedagogía

Start date: 09/2012

End date: 12/2012

End date: 09/2012

Entity: Universidade Estadual do Rio Grande do Sul,
UERGS

Type of entity: University

22 Name of the course: Física Aplicada A - Unidade Encantado

University degree: Agroindústria

Start date: 09/2012

End date: 09/2012

End date: 12/2012

Entity: Universidade Estadual do Rio Grande do Sul,
UERGS

Type of entity: University

23 Name of the course: Seminário Integrador VIII: socialização do TCC - Unidade São Francisco de Paula

University degree: Graduado o Graduada em Pedagogía

Start date: 09/2012

End date: 09/2012



End date: 12/2012

Entity: Universidade Estadual do Rio Grande do Sul,
UERGS

Type of entity: University

Experience supervising doctoral thesis and/or final year projects

- 1** **Project title:** La función de segundo grado
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Wilian Alberto Yanez Arteaga
Date of reading: 2018
- 2** **Project title:** Aplicaciones de la derivada en problemas de modelización
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Franklin Fernando Ortiz Trigueiros
Date of reading: 2018
- 3** **Project title:** Aplicación de las TIC en la Innovación del estudio de Matrices en primero BGU
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Publia Janeth Alban Rivera
Date of reading: 2018
- 4** **Project title:** Componentes del aspecto emocional presentes en las clases de matemáticas
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Janneth Chuchuca Yopez
Date of reading: 2018
- 5** **Project title:** Desarrollo de la unidad didáctica Matrices Numéricas
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Edgar Wilfrido Basantes Cañar
Obtained qualification: Aprobado
Date of reading: 2018
- 6** **Project title:** Ecuación de una recta y su aplicación en el entorno médico
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Ketty Ruby Rivas Camba
Date of reading: 2018



- 7** **Project title:** Estrategias Innovadoras Aplicadas en el Proceso de Enseñanza Aprendizaje de Funciones Lineales en los Estudiantes de los Primeros Bachilleratos de la Unidad de Quevedo
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Edgar Hermino Rivas Marin
Date of reading: 2018
- 8** **Project title:** Implementación de tareas secuenciales en el aprendizaje de razones trigonométricas en alumnos de segundo bachillerato de la unidad educativa ciudad de valencia
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Marcia Ines Vera Cajamarca
Date of reading: 2018
- 9** **Project title:** Implementación y experimentación de una unidad didáctica elaborada y aplicada en: Noveno de Básica Paralelo B de la Escuela Básica Eloy Velásquez Cevallos
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Jose Miguel Quishpee Vaca
Date of reading: 2018
- 10** **Project title:** Interés simple y sus aplicaciones
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Marlene del Rocio Torres Barahona
Date of reading: 2018
- 11** **Project title:** Sistema de ecuaciones lineales 2 x 2
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Lourdes Maribel Shuguli Chipantasi
Date of reading: 2018
- 12** **Project title:** Unidad didáctica sobre las funciones lineal y afin
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Alberto Xavier Badillo Alban
Date of reading: 2018
- 13** **Project title:** Introducción al Álgebra
Type of project: Trabajo de Fin de Master
Entity: Universitat de Barcelona **Type of entity:** University
City of entity: Ecuador
Student: Alex Fernando Yerovi Ortiz
Date of reading: 2018



- 14** **Project title:** La Resolución de Problemas y el logro de un clima relacional positivo en el aula de matemáticas
Type of project: Trabajo e Fin de Master
Entity: Universitat de Barcelona
City of entity: Ecuador
Student: Arnaldo Marcelo Espinoza Perez
Date of reading: 2018
Type of entity: University
- 15** **Project title:** Funcions a 1r de Batxillerat
Type of project: Trabajo de Fin de Master
Co-director of thesis: Adriana Breda
Entity: Universitat de Barcelona
City of entity: Barcelona, Spain
Student: Daniel Sánchez Ajo
Date of reading: 2015
Type of entity: University
- 16** **Project title:** Funcions a 3R de l'Ensenyament Secundari Obligatori
Type of project: Trabajo de Fin de Master
Co-director of thesis: Adriana Breda
Entity: Universitat de Barcelona
City of entity: Barcelona, Spain
Student: Raquel López Campos
Date of reading: 2015
Type of entity: University
- 17** **Project title:** Introducció a les funcions a 2n d'ESO
Type of project: Trabajo de fin de Master
Co-director of thesis: Adriana Breda
Entity: Universitat de Barcelona
City of entity: Barcelona, Catalonia, Spain
Student: Ignasi Castelltort Mejías
Date of reading: 2015
Type of entity: University
- 18** **Project title:** O olhar docente sobre a brincadeira simbólica em uma escola de Educação Infantil no Município de São Francisco de Paula-RS.
Type of project: End of course project
Entity: UERGS
Student: Amaral Linck
Date of reading: 2013
Type of entity: University
- 19** **Project title:** Relação entre a família e a escola: um estudo de caso em uma escola de Educação Infantil no Município de São Francisco de Paula-RS.
Type of project: End of course project
Entity: UERGS
Student: Amaral Linck
Date of reading: 2013
Type of entity: University

Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

1 **Name of the project:** ETHNOMATEMATICAL AND MODELING IN EDUCATION: LOOKING AT CULTURAL DIVERSITY

Type of project: Research and development, including transfer

Geographical area: National

Entity where project took place: Universidade Estadual de Santa Cruz

Type of entity: University

City of entity: Ilheus, Brazil

Name principal investigator (PI, Co-PI....): Zulma Madruga de Freitas

Nº of researchers: 7

Nº people/year: 7

Funding entity or bodies: CNPQ

Type of entity: Public Research Body

Type of participation: Team member

Start-End date: 10/09/2017 - 10/09/2019

Duration: 2 years

Total amount: 3.000 €

Dedication regime: Part time

Applicant's contribution: The present project aims to map recent research on ethnomathematics and mathematical modeling (ethnomodeling) and, later, to analyze how mathematical practices occur in a rural school. To this end, the following actions will be developed: 1) The theoretical mapping of research related to the themes: ethnomathematics, mathematical modeling and ethnomodeling; 2) analysis of mathematical "know-how" of the different spaces identified in the schools involved (external area, architecture, classroom, math curriculum, pedagogical political project, other aspects). Field surveys will still be conducted where data will be collected at school, with the aim of knowing the mathematical practices in different contexts. As a result, it is expected to understand how different cultures treat Mathematics in their everyday life, contributing to the valuation of minority practices, seeking an approximation between academic mathematics and those produced by people in their daily contexts. This project is in course.

2 **Name of the project:** RED8-Mathematics Education and Teacher Training - EDU2016-81994-REDT

Entity where project took place: FUNDACION GENERAL DE LA UNIVERSIDAD DE ALICANTE

City of entity: Alicante, Valencian Community, Spain

Start-End date: 2016 - 2019

Applicant's contribution: The scientific proposal that justifies the RED8-MEyFP is based on three areas of previous action of the different proponent groups related to Mathematics Education and Teacher Training that define three objectives: To promote channels of scientific exchange between research groups with a recognized trajectory that allows to improve the scientific debate, the theoretical referents used and the results obtained, Increase and make visible the scientific-technical impact of the different groups coordinating actions that allow to increase the capacity of international leadership, and Establish a platform that enhances the training of researchers in Mathematics Education and Teacher Training.

3 **Name of the project:** Developing and evaluating the competence on didactical analysis in elementary and middle/high school mathematics pre-service and prospective teacher training: Impact on the other competences

Identify key words: Design of mathematics learning environments; Knowledge and practice of mathematics teachers; Professional development of mathematics teachers



Type of project: Basic research (including archaeological digs, etc)

Geographical area: National

Degree of contribution: Invetigadores extranjeros

Entity where project took place: Universitat de Barcelona

Type of entity: University

City of entity: Barcelona, Catalonia, Spain

Name principal investigator (PI, Co-PI....): Vicenç Font Moll; Javier Díez Palomar

Nº of researchers: 20

Funding entity or bodies:

Ministerio de Economía y Competitividad

Type of entity: State or Central Administration

City funding entity: Spain

Type of participation: Doctores extranjeros

Name of the programme: PROYECTOS DE I+D, DEL PROGRAMA ESTATAL DE FOMENTO DE LA INVESTIGACIÓN CIENTÍFICA Y TÉCNICA DE EXCELENCIA, SUBPROGRAMA ESTATAL DE GENERACIÓN DEL CONOCIMIENTO

Code according to the funding entity: EDU2015-64646-P

Start-End date: 01/01/2016 - 31/12/2018

Duration: 3 years

Participating entity/entities: Pontificia Universidad Católica del Perú.; Universidad Autónoma de Querétaro; Universidad Católica de la Santísima Concepción de Chile; Universidad Nacional de Villamaría; Universidad de los Lagos; Universitat Politècnica de Catalunya; Universitat de Barcelona

Total amount: 29.645 €

Relevant results: They have developed criteria for the development of creativity in students of primary and secondary; and they have been used to design, implement and redesign training cycles, in the initial training of secondary teachers of mathematics, for the development of competence in analysis and didactic intervention, so that this development affects other competences (such as digital) and promote the mathematical creativity of its students. In this framework we have investigated how the development of this competence is related to the development of other competences and promotes creativity in students

Dedication regime: Full time

Applicant's contribution: I have collaborated with the team of the University of Los Lagos during the years 2016 and 2017 in the formulation of criteria for the development of inquiry and creativity in secondary school students and in the design, implementation, evaluation and redesign of teaching sequences, in Pedagogy in Middle Education in Mathematics and Computing of the University of the Lakes of Chile, for the development of the competence in analysis and didactic intervention of instruction processes, so that this development promotes the inquiry and the creative mathematical thinking of its students . He has also collaborated in the research, within the framework of the didactic sequences implemented at the University of Los Lagos, of how the development of said competence is related to the development of inquiry and the creative mathematical thinking of the students. She is also carrying out these same activities collaborating with the Barcelona team in the Master's Degree in Mathematics Secondary Education of Ecuador, of which she is a collaborating teacher during the 2016-2018 period.

- 4 Name of the project:** Developing and evaluating the competence of didactic analysis and intervention in the middle/high school mathematics pre-service teacher training: Its impact on the design of innovative didactic sequences addressed to promote mathematics creativity

Identify key words: Teachers training in mathematics; Knowledge and practice of mathematics teachers; Professional development of mathematics teachers

Type of project: Basic research (including archaeological digs, etc)

Geographical area: Regional

Degree of contribution: Researcher

Entity where project took place: Universitat de Barcelona

Type of entity: University

City of entity: Barcelona, Catalonia, Spain

Name principal investigator (PI, Co-PI....): Vicenç Font Moll

Nº of researchers: 10

Funding entity or bodies:



Institut de Ciències de l'Educació (ICE) - Universitat de Barcelona (UB) **Type of entity:** University

City funding entity: Barcelona, Catalonia, Spain

Type of participation: Team member

Name of the programme: PROGRAMA DE RECERCA EN DOCÈNCIA UNIVERSITÀRIA (REDICE-16)

Code according to the funding entity: REDICE16-1520

Start-End date: 30/06/2016 - 02/12/2017

Duration: 1 year - 5 months - 3 days

Participating entity/entities: Universidad Católica de la Santísima Concepción de Chile; Universidad de Los Lagos; Universitat de Barcelona

Total amount: 2.010,75 €

Relevant results: They have developed criteria for the development of inquiry and creativity in high school students; and they have been used to design, implement, evaluate and redesign didactic sequences, in the initial training of future teachers of secondary mathematics, for the development of competence in analysis and didactic intervention of instructional processes, so that this development promotes the inquiry and the creative mathematical thinking of its students. In this framework we have investigated how the development of this competence is related to the development of inquiry and the creative mathematical thinking of the students

Dedication regime: Full time

Applicant's contribution: I have collaborated with the team of the University of Los Lagos in the formulation of criteria for the development of inquiry and creativity in secondary school students and in the design, implementation, evaluation and redesign of teaching sequences, in Pedagogy in Secondary Education in Mathematics and Computation of the University of the Lakes of Chile, for the development of the competence in analysis and didactic intervention of instruction processes, so that this development promotes the inquiry and the creative mathematical thinking of its students. He has also collaborated in the research, within the framework of the didactic sequences implemented at the University of Los Lagos, of how the development of said competence is related to the development of inquiry and the creative mathematical thinking of the students.

5 **Name of the project:** The inheritance and repercussions of innovative activities in science teaching years of its implementation

Type of project: Research and development, including transfer

Geographical area: Nacional/Internacional

Degree of contribution: Researcher

Entity where project took place: Pontificia Universidad Católica do Rio Grande do Sul

Type of entity: University Research Institute

City of entity: Porto Alegre, Brazil

Name principal investigator (PI, Co-PI....): Joao Harres; Gabriela Delord

Nº of researchers: 6

Funding entity or bodies:

Universidad Federico Secondo de Napoli

Type of entity: University Research Institute

City funding entity: Napoli, Italy

Type of participation: Team member

Name of the programme: Pos-graduação em Educação em Ciências e Matemática

Start-End date: 2014 - 2017

Duration: 3 years

Total amount: 5.000 €

Dedication regime: Part time

Applicant's contribution: The research analyzes the inheritance and repercussions of innovative activities in science teaching from some case studies in Brazil and elsewhere, selected from previous projects / research developed by research groups, groups of teachers and schools with reasonably innovative experiences consolidated. The central objective is to understand how innovation comes or is produced by the teacher or the school and how it is maintained in the long run. The data will be analyzed qualitatively from interviews with teachers and visits to the chosen sites. It is expected to produce knowledge that will help to plan and evaluate the implementation of innovative approaches in science education. The



contribution of this project served to obtain an overview of the type of innovation in science classes implemented in different countries such as Spain, Italy, Brazil and Colombia. In addition, the results of the project indicate that it is important and necessary a greater integration between the university and the school.

6 Name of the project: REDICE- ACCIO -16

Entity where project took place: Universitat de Barcelona

Type of entity: University

City of entity: Barcelona, Catalonia, Spain

Start date: 21/07/2018

Applicant's contribution: Development and evaluation of the competence in analysis and didactic intervention in the initial formation of teachers of secondary mathematics. Its impact on the creative design of didactic sequences that promote mathematical creativity.

7 Name of the project: REDICE18-2000

Entity where project took place: Universitat de Barcelona

Type of entity: University

City of entity: Barcelona, Catalonia, Spain

Name principal investigator (PI, Co-PI....): Vicenç Font

Start date: 21/07/2018

Applicant's contribution: Training devices for the development and evaluation of the competence in analysis and didactic intervention in the initial and continuous training of primary and secondary school mathematics teachers. Its impact on the implementation of practices aimed at excellence and the development of creativity in students .. In this project one of the objectives is to experience training cycles combining class study and suitability criteria.

Scientific and technological activities

Scientific production

H index: 1

Date of application: 09/01/2018

Publications, scientific and technical documents

- 1** Luis Pino Fan; Vicenç Font Moll; Wilson Gordillo; Victor Larios Osorio; Adriana Breda. Analysis of the meanings of the antiderivative used by students of the first engineering courses. *International Journal of Science and Mathematics Education*. 16 - 6, pp. 1091 - 1113. (Holland): Springer Verlag, 2018. Available on-line at: <https://link.springer.com/article/10.1007%2Fs10763-017-9826-2>. ISSN 1571-0068

DOI: <https://doi.org/10.1007/s10763-017-9826-2>

Type of production: Scientific paper

Position of signature: 5

Total no. authors: 5

Impact source: ISI

Impact index in year of publication: 1.086

Position of publication: 71

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Category: Social Sciences Edition - EDUCATION & EDUCATIONAL RESEARCH

Journal in the top 25%: No

No. of journals in the cat.: 236

Relevant results: In this article we present the results of the administration of a questionnaire designed to evaluate the understanding that university students have of the antiderivative. Specifically, we analyzed the mathematical practices performed by civil engineering students in order to answer the questionnaire, so as to be able to identify and characterize the meanings of the antiderivative that they use. The questionnaire was simultaneously administered to samples of Mexican and Colombian students. For the analysis of the answers we used some theoretical and methodological notions provided by the theoretical model known as Onto-Semiotic Approach (OSA) to mathematical cognition and instruction. The results revealed the meanings of the antiderivative that are more predominantly used by civil engineering students. Also, the comparison between the mathematical activity of Mexican and Colombian students provides information that allows concluding that the meanings mobilized could be shared among their communities and are not particular of their classroom or university.

Relevant publication: Yes

- 2** Adriana Breda; Vicenç Font Moll; Luis Pino Fan. Criterios valorativos y normativos en la Didáctica de las Matemáticas: el caso del constructo idoneidad didáctica. *Bolema-Mathematics Education Bulletin-Boletim de Educacao Matematica*. 32 - 60, pp. 255 - 278. (Brazil): UNESP - Universidade Estadual Paulista, 2018. Available on-line at: <http://www.scielo.br/scielo.php?script=sci_serial&pid=0103-636X&lng=en&nrm=iso>. ISSN 0103-636X

Type of production: Scientific paper

Position of signature: 1

Total no. authors: 3

Impact source: SCOPUS

Impact index in year of publication: 0,187

Position of publication: 746

Source of citations: WOS

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Category: Education

Journal in the top 25%: No

No. of journals in the cat.: 1.066

Citations: 3

Relevant results: In various investigations, it has been observed the following phenomenon: the didactical suitability criteria pro-posed by Ontosemiotic Approach function as regularities in the speech of teachers when they justify that their didactic proposals represent an improvement, without having been taught the use of this tool to guide their re-flection. This article explains this phenomenon by placing the didactical suitability construct in the problematic on the role of assessments and normative principles in teacher practice. More generally, there is a theoretical development of the didactical suitability construct: how it originated, what leads to us and how it can affect the teacher's practice.

Relevant publication: Yes

- 3** Yerka Monje; María José Seckel Santis; Adriana Breda. Tratamiento de la Inecuación en el Currículum y Textos Escolares Chilenos. *Bolema-Mathematics Education Bulletin-Boletim de Educacao Matematica*. 32 - 61, pp. 480 - 502. (Brazil): UNESP - Universidade Estadual Paulista, 2018. Available on-line at: <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-636X2018000200480&lng=es&tlng=es>. ISSN 0103-636X

Type of production: Scientific paper

Position of signature: 3

Total no. authors: 3

Impact source: SCOPUS

Impact index in year of publication: 0,187

Position of publication: 746

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Category: Education

Journal in the top 25%: No

No. of journals in the cat.: 1.066

Relevant results: In this paper, an analysis of the treatment of inequality has been made, including both: the curriculum, through its plans and programs, and the Chilean school texts. Within the findings, we reveal some differences in the progression of the teaching of the mathematical object under study, that is to say, the treatment given to the object in different courses would not cover it in its entirety. The missing contents, could be addressed in classroom planning of every teacher with the aim of improving learning processes. Moreover, it is important to mention that the study process explained in this research, can be also applied in the analysis of other mathematical objects.

Relevant publication: Yes

- 4** Adriana Breda; Luis Pino Fan; Vicenç Font Moll. Meta didactic-mathematical knowledge of teachers: criteria for the reflection and assessment on teaching practice. *Eurasia Journal Of Mathematics Science And Technology Education*. 13 - 6, pp. 1893 - 1918. (Turkey): 2017. Available on-line at: <<http://www.ejmste.com/Author-Adriana-Breda/44869>>. ISSN 1305-8215

DOI: <https://doi.org/10.12973/eurasia.2017.01207a>

Type of production: Scientific paper

Position of signature: 1

Total no. authors: 3

Impact source: ISI

Impact index in year of publication: 0.913

Position of publication: 147

Source of citations: WOS

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Category: Social Sciences Edition - EDUCATION & EDUCATIONAL RESEARCH

Journal in the top 25%: No

No. of journals in the cat.: 236

Citations: 8

Relevant results: This research prove that when teachers are faced with the task of evaluating processes of instruction, they employ-either implicitly or explicitly- the OSA criteria of didactical suitability (epistemic, cognitive, affective, mediational, interactional and ecological). This article is a partial response to a question which is relevant to the training of mathematics teachers: Should the reflection on practice be guided? If so, with the use of what tools? Our response is that the reflection on practice should indeed be guided and that the use of the didactic suitability criteria (and more generally speaking, with the constructs of the DMKC model) can serve as useful tools for the teachers.

Relevant publication: Yes

- 5** Adriana Breda; Valderez Marina Rosario Lima. Estudio de caso sobre el análisis didáctico realizado en un trabajo final de máster para profesores de matemáticas en servicio. *REDIMAT-REVISTA DE INVESTIGACION EN DIDACTICA DE LAS MATEMATICAS*. 5 - 1, pp. 74 - 103. Barcelona, Catalonia(Spain): Hipatia, 2016. Available on-line at: <<http://hipatiapress.com/hpjournals/index.php/redimat/article/view/1955>>. ISSN 2014-3621

DOI: <http://dx.doi.org/10.17583/redimat.2016.1955>

Type of production: Scientific paper

Position of signature: 1

Total no. authors: 2

Impact source: ISI

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Category: Emerging Sources Citation Index - Education & Educational Research

Relevant results: This article aims to investigate the didactic assessment characteristics conducted by teachers within Brazilian Professional Master Programme in Mathematics (PROFMAT), to justify that their didactic proposals are innovative and represent an improvement over the common ways which mathematics is taught. For this, a case study of a teacher who has planned and implemented an innovative educational proposal is presented. One of the findings was that his didactic analysis is based on implicit using of several components and descriptors of didactic suitability, which are proposed by the Ontosemiotic of Mathematics Cognition and Instruction Approach. It is also concluded that, despite of the implicit use of some components and descriptors highlighted by the justification of the studied teacher, it is hardly considered as a well-structured or even a developed discussion

Relevant publication: Yes

- 6** Adriana Breda; Vicenç Font; Valderez Marina Rosario Lima. Análise das Propostas de Inovação nos Trabalhos de Conclusão de Curso de um Programa de Mestrado Profissional em Matemática. *Avances de Investigación en Educación Matemática*. 10, pp. 53 - 72. (Spain): Sociedad Española de Investigación en Educación matemática-SEIEM, 2016. Available on-line at: <<http://www.aiem.es/index.php/aiem/article/view/137>>. ISSN 2254-4313

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Total no. authors: 3**Impact source:** ISI**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Corresponding author:** Yes**Category:** Emerging Sources Citation Index- Education & Educational Research

Relevant results: The main objective of this work is finding out the innovations and their justifications within the Brazilian Professional Master Program in Mathematics (PROFMAT). A qualitative study is carried out by addressing a total of 29 works published from the first half of 2013 to the second half of 2014. It is concluded that the main kinds of innovation are: (i) incorporation of higher education content on basic education, and (ii) introduction of computational resources. The former is justified because it allows new ways of relating and addressing mathematical content, conducting relevant mathematical processes and doing more attractive the lessons to stimulate the students' interest. The latter is justified by the fact that ICT motivates and stimulate lessons that contribute to facilitate conceptual understanding and problem solving.

Relevant publication: Yes

- 7** Vicens Font Moll; Adriana Breda; Gemma Sala Sebastià. Competencias profesionales en la formación inicial de profesores de matemáticas. *Práxis Educacional*. 11 - 19, pp. 17 - 34. (Brazil): Universidade Estadual do Sudeste de Bahia, 2015. Available on-line at: <<http://periodicos.uesb.br/index.php/praxis/article/view/4759>>. ISSN 1809-0249

Handle: <http://hdl.handle.net/2445/108903>**Type of production:** Scientific paper**Position of signature:** 2**Format:** Journal**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Corresponding author:** No**Category:** Emerging Sources Citation Index - Education & Educational Research**Total no. authors:** 3**Impact source:** ISI

Relevant results: This paper considers the following question: how to get mathematics teachers trainee of Secondary school have the professional competences that allow them for the development and evaluation of the mathematical competences stipulated on the curriculum? First of all, there is a thought over the idea of competence. Secondly, this thought is done over two essential aspects for the development and evaluation of students' mathematical competences in Secondary school (the role of the disciplinary competence and the role of the didactical analysis competence in instruction processes). Finally, there are some considerations about a curriculum of competences in the teachers training programmes and the importance that the didactical analysis instruction processes competence has on the mentioned instruction.

Relevant publication: Yes

- 8** Adriana Breda; Valdez Marina Rosario Lima; Marcos Villela Pereira. Papel das TIC nos trabalhos de conclusão do mestrado profissional em matemática em rede nacional: o contexto do Rio Grande do Sul. *Práxis Educacional*. 11 - 19, pp. 213 - 230. (Brazil): Universidade Estadual do Sudeste de Bahia, 2015. Available on-line at: <<http://periodicos.uesb.br/index.php/praxis/article/view/4759>>. ISSN 1809-0249

Handle: <http://hdl.handle.net/2445/108903>**Type of production:** Scientific paper**Position of signature:** 1**Format:** Journal**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Corresponding author:** Yes**Category:** Emerging Sources Citation Index - Education & Educational Research**Total no. authors:** 3**Impact source:** ISI

Relevant results: This work aims to understand what role have the technological resources in term papers carried out in Professional Masters in Mathematics in National Network. For this, there was a qualitative study of twenty-nine works, published by the universities of Rio Grande do Sul participants in such a master, during the first half of 2013 to the second half of 2014. Through the analysis, it is concluded that two thirds of the works incorporate ICT in their teaching proposals, especially with the implementation of GeoGebra software and spreadsheet. The nineteen works, five of them consider explicitly the use of ICT as the core of its innovative

proposal, which justify such tools promote the improvement of mathematics education, as they make the attractive and motivating proposals, promote an constructivist and meaningful learning, enable interaction between teacher-student-software, enable wealth of mathematical processes, contributing to the appropriation of mathematical knowledge of students

Relevant publication: Yes

- 9** Zulma Madruga Freitas; Adriana Breda. Criação de sambas enredos: relações entre modelagem e etnomatemática. Revista Latinoamericana de Etnomatemática. 11 - 1, pp. 62 - 86. Nariño(Colombia): 2018. Available on-line at: <http://docs.wixstatic.com/ugd/79829d_914324dd8500468c9ee62b7e1d8845e6.pdf>. ISSN 2011-5474

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 2

Relevant results: This research aimed to analyze, from a modeling perspective, aided ethnomodeling, the process of creating sambas tangles for Brazilian carnival associations. For that, the mapping was used as a methodological principle, divided into two stages: Empirical data seizure obtained by narrative interviews with a composer of sambas plot; Significance of these data by analyzing them, seeking to articulate these results with the ethnomathematics program. It was noticed that in the music there is an implicit mathematics, and very related to the cultural context of the interviewee. In addition, it was evidenced that the composer, when creating a samba goes through the phases: intention, projection, creation and product, these stages that are in harmony with the procedures used in the modeling in the education: perception and apprehension; understanding and explanation; and, meaning and expression.

- 10** Viviane Hummes; Adriana Breda; Marcia Notare. O ensino de equações do primeiro grau à luz da Teoria da Aprendizagem Significativa: uma proposta sobre a noção de equivalência como conceito subsunçor. REMAT: Revista Eletrônica da Matemática. 4 - 1, pp. 102 - 114. (Brazil): 2018. Available on-line at: <http://docs.wixstatic.com/ugd/79829d_8c7384cab108437ebbb39583fa36f9be8.pdf>. ISSN 2447-2689

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 3

Relevant results: The analysis of the activities carried out showed that the notion of equivalence existing in an equation can be considered a prior knowledge necessary to anchor the learning of equations of first degree and, in this way, to favor the Significant Learning of the students.

- 11** Vicenç Font Moll; Adriana Breda; María José Seckel Santis. Algunas implicaciones didácticas derivadas de la complejidad de los objetos matemáticos cuando estos se aplican a distintos contextos. Revista Brasileira de Ensino de Ciência e Tecnologia. 10 - 2, pp. 1 - 23. (Brazil): Universidade Tecnológica Federal do Paraná, 2017. Available on-line at: <<https://periodicos.utfpr.edu.br/rbect/article/view/5981/pdf>>. ISSN 1982-873X

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 3

Corresponding author: No

Impact source: Qualis (Capes)

Category: Ensino

Impact index in year of publication: A2

Impact source: Latindex

Impact index in year of publication: Catálogo

Relevant results: This work is, fundamentally, a theoretical reflection. In the first part explains the notion of didactic suitability and, in particular, the criterion of epistemic suitability, one of its indicators being the "representative sample of the complexity of the mathematical object". The second part justifies the presence of this indicator from a reflection, made from a pragmatist perspective, on its relationship with the notion of connection

process and context. It concludes with a reflection on the use of this descriptor in the training of mathematics teachers.

- 12** Parra, Y.; Breda, A. La enseñanza de o desde la resolución de problemas matemáticos: concepciones de profesores de Matemática en formación. REVISTA ACTA SCIENTIAE. 19, pp. 277 - 295. 2017. ISSN 2178-7727

Type of production: Scientific paper

Position of signature: 2

Total no. authors: 2

Impact source: QUALIS-CAPE

Impact index in year of publication: A2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Category: ENSINO

Journal in the top 25%: No

Impact source: Catálogo Latindex

Relevant results: This paper aims to demonstrate the conceptions of mathematics teachers in training, a Chilean university, about problem solving (PS) and how they implement it in the development of their classes. For that was performed, a) a literature review was carried out with the purpose of identifying the different theoretical perspectives around problem solving; b) a questionnaire of five questions aimed at examining what four future mathematics teachers in formation understand by Problem Solving and how they implement it in the development of their math classes. Through a qualitative analysis it is concluded that there are inaccuracies, on the part of the teachers in formation, regarding the definitions of problem solving. In addition, it was found that the conceptualization given by teachers is, on the one hand, approaching the traditional perspectives, such as those proposed by Polya and Schoenfeld and, on the other hand, moving away from the more current perspectives, for example, Lesh and Zawojewski. In this same sense, it was corroborated that teachers' responses suffer from curricular influences that promote the conception of problem solving as an activity that is incorporated after the conceptualization of specific mathematical notions.

- 13** Madruga, Z. E. F.; Scheller, M.; Chamorro, J. M.; Breda, A. Mapeamento de pesquisas em modelagem matemática na Espanha: recorte de produções científicas. InterSaberes Revista Científica. 12, pp. 322 - 335. 2017. ISSN 1809-7286

Type of production: Scientific paper

Position of signature: 4

Total no. authors: 4

Impact source: QUALIS-CAPE

Impact index in year of publication: B3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Category: ENSINO

Relevant results: This paper displays research results that aims to understand how mathematical modeling (MM) is presented in the studies that discuss such topic in Spain. As a methodological approach, the author used the Mapping procedures in Educational Research. The data were gathered from eight papers written by Spanish researchers. They were published in periodicals, in Spanish, in Spain and/or abroad. There were five categories previously established for the analysis: (a) MM theoretical studies; (B) the research context; (C) investigated problems / research interest; (D) methodology; (E) main results and contributions to evolve the specific theme. The study identified theoretical and methodological approaches among the analyzed studies and shows that the core of the research is focused on students and teachers' thoughts, perceptions and actions during the MM process.

- 14** Madruga, Z. E. F.; Breda, A. Mapeamento de produções recentes sobre Modelagem Matemática nos anos iniciais do Ensino Fundamental. REMAT: REVISTA ELETRÔNICA DA MATEMÁTICA. 3, pp. 67 - 81. 2017. ISSN 2447-2689

Type of production: Scientific paper

Position of signature: 2

Total no. authors: 2

Impact source: Qualis-CAPE

Impact index in year of publication: B3

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Category: ENSINO

Journal in the top 25%: No



- 15** Araya, D.; Breda, A. Problemas con enunciados sencillos para generar actividades complejas de Resolución de Problemas. REMAT: REVISTA ELETRÔNICA DA MATEMÁTICA. 3, pp. 82 - 92. 2017. ISSN 2447-2689
Type of production: Scientific paper
Position of signature: 2
Total no. authors: 2
Impact source: QUALIS-CAPES
Impact index in year of publication: B3
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
Category: ENSINO
Journal in the top 25%: No
- 16** Madruga, Z. E. F.; Breda, A. Processos de criação de esculturas de carnaval: um olhar sob a perspectiva etnomatemática. JOURNAL OF MATHEMATICS AND CULTURE. 11, pp. 1 - 19. 2017. ISSN 1558-5336
Type of production: Scientific paper
Position of signature: 2
Total no. authors: 2
Impact source: QUALIS- CAPES
Impact index in year of publication: B4
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No
Category: ENSINO
Relevant results: The aim of research was to analyze creation's processes of sculptures for Brazilian carnivalesque associations. For that, mapping was used as methodological principle, divided in two stages: apprehension of empirical data, extracted from the sculptor's narratives; Meaning these data analysis, seeking articulation with the ethnomathematical program and the configuration's model of creative processes. The analyses show that, during the construction of sculptures, there was an emergence of implicit mathematical concepts related to the cultural context of carnival. In addition, it was evidenced that, for creation of sculptures, the interviewee contemplates the four stages of creative process: preparation, incubation, lighting and verification
- 17** Breda, A.; Silva, J. F.; Carvalho, M. P. A formação de professores de matemática por competências: trajetória, estudos e perspectivas do professor Vicenc Font, Universitat de Barcelona. Revista Paranaense de Educação Matemática. 5, pp. 10 - 32. 2016. ISSN 2238-5800
Type of production: Scientific paper
Position of signature: 1
Total no. authors: 3
Impact source: QUALIS-CAPES
Impact index in year of publication: B1
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Category: ENSINO
- 18** Breda, A.; Hauschild, C. A.; Flores, J. F.; Ramos, M. G.; Lima, V. M. R. A investigação como princípio educativo na formação de professores de Ciências e Matemática. Caderno Pedagógico (Lajeado. Online). 13, pp. 107 - 123. 2016. ISSN 1983-0882
Type of production: Scientific paper
Position of signature: 1
Total no. authors: 5
Impact source: Qualis - Capes
Impact index in year of publication: B3
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Category: ENSINO
Relevant results: The purpose of this study is exploring how research, as a learning principle, is conducted in sciences and mathematics teacher training. In order to do this, nine articles published between 2010 and 2014 in journals with Qualis1 ranging from A1 to B3 in the education area were selected. The analysis was carried out through qualitative meta-analysis, of four categories: type of study and area of knowledge; training phases and activities accomplished; methodology adopted and finally, conclusions presented. Conclusions show that research, as an educational principle, occurs in various phases of training, with different names and in distinct activities.

It could be further concluded that studies that are based on research as a learning principle are more likely to surpass traditional teaching models based on knowledge assimilation and reproduction.

- 19** Adriana Breda; Vicenç Font Moll; Valdez Marina Rosario Lima. A noção de idoneidade didática e seu uso na formação de professores de matemática. *Jornal Internacional de Estudos em Educação Matemática*. 8 - 2, pp. 1 - 41. 2015. Available on-line at: <<http://pgsskroton.com.br/seer/index.php/jieem/article/view/2364>>. ISSN 2176-5634
DOI: <https://doi.org/10.17921/2176-5634.2015v8n2p%25p>

Type of production: Scientific paper

Position of signature: 1

Total no. authors: 3

Impact source: Qualis (Capes)

Impact index in year of publication: A2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Category: Ensino

Relevant results: This work aims to present a theoretical discussion about the notion of suitability didactic of instructions process and how the use of this is reflected in the investigations about mathematics teachers formation. For this, in detail, demonstrate the suitability criteria and their descriptors, addressing them first as a theoretical construct, and following, with several investigations in the training of mathematics teachers of different educational levels and in countries like Spain, Argentina, Mexico, Chile and Brazil.

- 20** Adriana Breda; Vicenç Font Moll; Valdez Marina Rosario Lima. Propuestas de incorporación de contenidos matemáticos de nivel superior en la educación básica: un estudio de los trabajos finales de curso del Máster Profesional en Matemáticas en la Red Nacional. *Revista Brasileira de Ensino de Ciência e Tecnologia*. 8 - 3, pp. 53 - 65. (Brazil): Universidade Tecnológica Federal do Paraná, 2015. Available on-line at: <<https://periodicos.utfpr.edu.br/rbect/article/view/3189>>. ISSN 1982-873X
DOI: <https://doi.org/10.3895/rbect.v8n3.3189>

Type of production: Scientific paper

Position of signature: 1

Total no. authors: 3

Impact source: Qualis - (Capes)

Impact index in year of publication: A2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Category: Ensino

Impact source: Catálogo Latindex

Category: Ensino

Relevant results: The objective of this work is to understand the role of incorporation of higher educational content on innovation proposals for basic education, reported on Final Course Assignments within Brazilian Professional Master Programme in Mathematics. A qualitative study was carried out addressing a total of twenty nine works, published from the first half of 2013 to second half of 2014. It was possible to conclude that almost half of the works have their innovation proposals based on discrete mathematical content and introduction to calculation. The justification given for this kind of innovation is that the incorporation of higher educational content allows: 1) new ways of relating and addressing mathematical content, 2) conduction of relevant mathematical processes and, 3) more attractive classes that stimulates the interest of the students.

- 21** Hummes, V. B.; Breda, A.; Lima, V.M.R.A Interpretação das Soluções de Sistemas de Equações Lineares de Ordem Dois através do Software Geogebra: uma Abordagem Geométrica. *Revista de Educação Dom Alberto*. 1, pp. 37 - 51. 2014. ISSN 2316-2260

Type of production: Scientific paper

Position of signature: 2

Total no. authors: 3

Impact source: Qualis-Capes

Impact index in year of publication: B5

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Category: ENSINO

Relevant results: This work aims at presenting the results regarding an investigation that deals with the study of solutions of second-order linear equation systems, through its geometric representation, using Geogebra. To do so, a case study has been conducted with students on the ninth grade of Elementary School, at a public school in Porto Alegre, Brazil. The data, collected through questionnaires and analyzed through Discursive Textual Analysis, emerged into two different categories. The first one discusses the students comprehension that the solution of a second-order system corresponds to the intersection points determined by the relative position between two lines. The second category shows that, based on the comparison between the algebraic and geometric results, students were able to understand the meaning of the solutions.

- 22** Breda, A.; Hummes, V. B.; Lima, V. F. M. Torre de Hanói virtual e a construção do conceito de Função Exponencial no Ensino Médio. RENOTE. Revista Novas Tecnologias na Educação. 11, pp. 1 - 9. 2013. ISSN 1679-1916

Type of production: Scientific paper

Position of signature: 1

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Total no. authors: 3

Impact source: Qualis - Capes

Impact index in year of publication: B1

Relevant results: This paper aims to present a reflection about the learning process of Exponential Function in High School, from the employment of the virtual game Tower of Hanoi through the use of educational laptops. The data were collected by an initial questionnaire, in order to identify the preliminary ideas and to register in a field journal. After the data were analyzed according to the Discursive Textual Analysis. From this analysis two categories emerged: the first indicates that the initial idea which the students presented in relation to the Exponential Function is associated to a characterization of the language to the Quadratic Function. The second category points a transformation of the natural language understanding of Exponential Function to the formal language, that is to say, the formal school concept of Exponential Function.

- 23** Breda, A.; Lima, V.M.R.; Guimaraes, G. T. D. A Etnomatemática nos cursos de formação continuada de professores: implicações das regularidades discursivas e das relações de poder na produção de subjetividades. Revista Latinoamericana de Etnomatemática. 5, pp. 116 - 148. 2012. ISSN 2011-5474

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Total no. authors: 3

Impact source: Qualis - Capes

Impact index in year of publication: B5

Category: ENSINO

Relevant results: This work aims to present a discussion, consequential from a masters degree research, of how the use of Ethnomathematics in continuing education programs for mathematics' teachers implies in the production of subjectivities. Therefore, two Masters dissertations that studied the Ethnomathematics in teachers education line were analyzed: one from a private institution and one produced at a public institution, disclosed in the years 2006 and 2009, respectively, in Porto Alegre-RS. The analysis has focused on investigating, according to Foucault's discourse theories, through the discursive regularities and power/knowledge relations, how different modes of subjectivity are produced in the researching subjects. By using two guiding principles of visibility: Ethnomathematics as art and technique to explain and understand within the different cultures and the relation of it with the teacher's training and the Ethnomathematics as a mechanism of government, it follows that the discussions of the analyzed papers operate as governance mechanisms able to qualify and lead conducts, producing this way, unique modes of subjectivity.

- 24** Hummes, V. B.; Breda, A. Abordando a Relação de Euler através do objeto de aprendizagem Uma Pletora de Poliedros: um estudo de caso com alunos do terceiro ano do ensino médio. RENOTE. Revista Novas Tecnologias na Educação. 9, pp. 1 - 10. 2011. ISSN 1679-1916

Type of production: Scientific paper

Position of signature: 2

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 2

Corresponding author: No

Impact source: Qualis - Capes

Category: ENSINO

Impact index in year of publication: B1

Relevant results: The aim of this work is to present results regarding the learning process, through a Vygotskian perspective, of Euler's relation through the learning object A Plethora of Polyhedra. To do so, a case study has been performed with ten students of a third grade high school class of a public school in Porto Alegre. The data have been collected from two questionnaires : one identifying the prior ideas and the other what the students have learnt after the use of the virtual device. From the data analysis, it was concluded that although the students expressed, initially, the polyhedra as flat figures, after the use of the software they managed to establish the relationship between the faces, edges and vertices of the figures, perceiving that they are three-dimensional figures.

- 25** Breda, A.; Lima, V. M. R. Etnomatemática sob dois pontos de vista: a visão D'Ambrosiana e a visão Pós-Estruturalista. Revista Latinoamericana de Etnomatemática. 4, pp. 4 - 31. 2011. ISSN 2011-5474

Type of production: Scientific paper

Position of signature: 1

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Total no. authors: 2

Impact source: Qualis - Capes

Impact index in year of publication: B5

Relevant results: This work aims to present two perspectives in which ethnomathematics can be conceived. As per-D'Ambrosian perspective, the ethnomathematics is understood as an art or technique of explaining and perceiving within the different social and cultural environments with pedagogical implications. The other perspective is the conception of ethnomathematics as a mechanism of government because, according to theories proposed by poststructuralist Foucault (1998) and Bampi (2003), ethnomathematics practices are regarded as a device that multicultural government ranks natural modes of existence fixing it to an identity ethno-nuanced. The intention of this study is to present theoretically how the two perspectives gained space in Mathematics Education's history and what is its contribution to both education and teachers' formation.

- 26** Adriana Breda; Vicenç Font; Valdez Lima; Marcos Pereira Villela. Componentes e indicadores de los criterios de idoneidad didáctica desde la perspectiva del enfoque ontosemiótico. Transformación. 14 - 2, pp. 162 - 176. Camagüey (Cuba): Available on-line at: <http://scieloprueba.sld.cu/scielo.php?script=sci_arttext&pid=S2077-29552018000200003&lng=pt&nrm=iso>. ISSN 2077-2955

Collection: Scielo

Type of production: Scientific paper

Position of signature: 1

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 4

Impact source: Scielo

Relevant results: This research is based on the notion of didactic suitability criteria proposed by the Ontosemiotic Approach (OSA) of Mathematical Knowledge and Instruction (Godino, Batanero, and Font, 2007). It is aimed at describing the components and indicators for each of these criteria. Theoretical framework systematization and case study were used as fundamental methods; the latter was used to compare the proposed descriptors to the indicators of successful performance used by an in-service teacher to describe his teaching practice in his master degree dissertation. The components and indicators corresponding to each of the suitability criteria and its correspondence to teachers' qualification description referred to in the case study are offered as a scientific result.

- 27** Adriana Breda. O ensino de matemática e o uso das TIC. Diálogos e reflexões sobre tecnologias digitais na educação matemática. 1, pp. 39 - 59. São Paulo (Brazil): Editora da Física, 2018. ISBN 9788578615369

Type of production: Book chapter

Position of signature: 1

Format: Book

Degree of contribution: Author or co-author of chapter in book

Relevant results: In the field of Didactics of Mathematics we have discussed what are the necessary elements that must be taken into account in order to promote an improvement in the teaching of mathematics. However, establishing a list of such elements without studying them in greater depth in order to generalize them to any particular context or situation is at least risky. After all, what does the notion of "improving math teaching" mean? What is meant by "better quality math teaching"? What is the role of ICT in this process? How to develop didactic proposals that could represent an improvement in the teaching of this discipline? In order to discuss these problems, this text is born from a talk held in the scope of EDUMATEC (Mathematics Education and Technology) in the year 2017. The discipline that forms part of the initial training of mathematics teachers of the degree course in Mathematics of the Federal University of Rio Grande do Sul is focused on studying and discussing the use of technologies in mathematics classes. For the development of the proposed theme, a discussion of the notion of "improvement in the teaching of mathematics" is established, showing that the idea of improvement can be assumed by two different philosophical perspectives; in a second moment, are presented the results of a broader research carried out in Breda (2016), which shows the justifications given by teachers of mathematics in the exercise on the use of ICT in their didactic proposals and, finally, some considerations about the text, suggestions and future perspectives.

Works submitted to national or international conferences

- 1** **Title of the work:** Educación Matemática y Formación de Profesores
Name of the conference: Seminario Latinoamericano de Educación Matemática y Formación de Profesores
Type of event: Seminar
Corresponding author: No
City of event: La laguna, Canary Islands, Spain
Date of event: 2019
End date: 2019
Organising entity: Universidad de La Laguna **Type of entity:** University
City organizing entity: La Laguna, Canary Islands, Spain
Type of contribution: Book chapter
Silvia Carvajal; Joaquin Giménez; Vicenç Font; Adriana Breda. "La competencia digital en futuros profesores de matemáticas".
- 2** **Title of the work:** CRITERIOS DE IDONEIDAD DIDÁCTICA
Name of the conference: IV EIEM
Type of event: Conference
City of event: Barranquilla, Colombia
Date of event: 2018
Organising entity: Universidad del Atlantico **Type of entity:** University
City organizing entity: Barranquilla, Colombia
Type of contribution: Scientific book or monograph
Vicenç Font; Adriana Breda. "CRITERIOS DE IDONEIDAD DIDÁCTICA". En: CRITERIOS DE IDONEIDAD DIDÁCTICA. 4, pp. 14 - 17. ISSN 2539-3219
- 3** **Title of the work:** LOS CRITERIOS DE IDONEIDAD DIDÁCTICA EN LA FORMACIÓN DE PROFESORES
Name of the conference: IV EIEM
Type of event: Conference
City of event: Barranquilla, Colombia
Date of event: 2018
Organising entity: Universidad del Atlantico **Type of entity:** University
City organizing entity: Barranquilla, Colombia
Type of contribution: Scientific book or monograph

Vicenç Font; Maria Jose Seckel; Adriana Breda. "LOS CRITERIOS DE IDONEIDAD DIDÁCTICA EN LA FORMACIÓN DE PROFESORES". En: LOS CRITERIOS DE IDONEIDAD DIDÁCTICA EN LA FORMACIÓN DE PROFESORES. 4, pp. 22 - 24. ISSN 2539-3219

- 4** **Title of the work:** Un modelo de los conocimientos y competencias del profesor de matemáticas basado en el enfoque ontosemiótico

Name of the conference: Decimosegundo Congreso Argentino de Educación Matemática (XII CAREM)

Type of event: Conference

City of event: Buenos Aires, Argentina

Date of event: 2018

Organising entity: SOAREM

Type of entity: Sociedad Argentina de Educación Matemática

City organizing entity: Buenos Aires, Argentina

Publication in conference proceedings: Yes

Type of contribution: Scientific book or monograph

Vicenç Font; Luis Pino-Fan; Adriana Breda. En: Un modelo de los conocimientos y competencias del profesor de matemáticas basado en el enfoque ontosemiótico. pp. 62 - 70. (Argentina): ISSN 2618-3323

- 5** **Title of the work:** Análisis de narrativas de futuros profesores con el modelo de conocimientos y competencias didáctico-matemáticas (CCDM)

Name of the conference: Seminario de Investigación en Educación Matemática XXII (SEIEM)

Type of event: Seminar

Geographical area: National

Type of participation: Participatory - invited/keynote talk

City of event: Gijón, Galicia, Spain

Date of event: 2018

End date: 2018

Organising entity: FUNDACION UNIVERSIDAD DE OVIEDO

City organizing entity: Gijón, Galicia, Spain

Type of contribution: Book chapter

Vicenç Font; Adriana Breda; Belen Giacomene; Juan Godino. "Análisis de narraNarrativas de futuros profesores con el modelo de conocimientos y competencias didáctico-matemáticas (CCDM)". En: Investigación en Educación Matemática XXII. 22 - 1, pp. 23 - 28. SEIEM, ISBN 9788417445119

- 6** **Title of the work:** El programa Etnomatemática: implicaciones pedagógicas y posibilidades para la formación de profesores

Name of the conference: Conferencia en la Facultad de Filosofía y Ciencias de la Educación

Type of event: Conferencia

Type of participation: Participatory - invited/keynote talk

City of event: Cuenca, Ecuador

Date of event: 2018

Organising entity: Universidad de Cuenca

Type of entity: University

City organizing entity: Cuenca, Ecuador

Adriana Breda.

- 7** **Title of the work:** Criterios de idoneidad didáctica utilizados por profesores que cursan un máster profesional en Brasil para justificar la mejora de la enseñanza de las matemáticas en sus trabajos de fin de máster.

Name of the conference: XV Foro Internacional sobre la Evaluación de la Calidad de la Investigación y de la Educación Superior (FECIES)

Type of event: Foro

City of event: Santander, Cantabria, Spain

Date of event: 2018

Organising entity: Asociación Española de Psicología Conductual (AEPC)

Type of entity: Associations and Groups

City organizing entity: Santander, Cantabria, Spain

Adriana Breda; Valderez Lima do Rosario; Vicenç Font. En: Criterios de idoneidad didáctica utilizados por profesores que cursan un máster profesional en Brasil para justificar la mejora de la enseñanza de las matemáticas en sus trabajos de fin de máster. pp. 177 - 177. ISBN 9788409020997

- 8** **Title of the work:** Criterios valorativos y normativos en la Didáctica de las Matemáticas: el caso del constructo idoneidad didáctica

Name of the conference: XV Foro Internacional sobre la Evaluación de la Calidad de la Investigación y de la Educación Superior (FECIES)

Type of event: Foro

Type of participation: Participatory - oral communication

City of event: Santander, Cantabria, Spain

Date of event: 2018

Organising entity: Asociación Española de Psicología Conductual (AEPC)

Type of entity: Associations and Groups

City organizing entity: Santander, Cantabria, Spain

Adriana Breda; Vicenç Font; Javier Diaz Palomar. "Criterios valorativos y normativos en la Didáctica de las Matemáticas: el caso del constructo idoneidad didáctica". En: Evaluación de la Calidad de la Investigación y de la Educación Superior. pp. 175 - 175. ISBN 9788409020997

- 9** **Title of the work:** Criterios valorativos y normativos en la didáctica de las matemáticas.

Name of the conference: XXXII Reunión latinoamericana de Matemática Educativa

Type of event: Reunión

Type of participation: Participatory - invited/keynote talk

City of event: Medellín, Colombia

Date of event: 2018

Organising entity: Universidad de Medellín

Type of entity: University

City organizing entity: Medellín, Colombia

Adriana Breda.

- 10** **Title of the work:** Análisis de la Narrativa. Modelo CCDM

Name of the conference: Reunión Intermedia del Grupo Conocimiento y Desarrollo Profesional del Profesor de la Sociedad Española de Investigación en Educación Matemática

City of event: Alicante, Valencian Community, Spain

Date of event: 2018

Organising entity: Universidad de Alicante

Type of entity: University

City organizing entity: Alicante, Valencian Community, Spain

Adriana Breda; Vicenç Font; Belen Giacomene; Juan Godino.

- 11** **Title of the work:** Análisis de narrativas de profesores utilizando el modelo CCDM

Name of the conference: XXXII Reunión latinoamericana de Matemática Educativa

Type of participation: Participatory - oral communication

City of event: Medellín, Colombia

Date of event: 2018

Organising entity: Universidad de Medellín

Type of entity: University

City organizing entity: Medellín, Colombia

Adriana Breda.

- 12** **Title of the work:** Criterios utilizados por profesores para justificar la mejora de la enseñanza de las matemáticas en sus trabajos de fin de master
Name of the conference: Escuela de Doctorado RED8: Educación Matemática y Formación de Profesores
City of event: Alicante, Valencian Community, Spain
Date of event: 2018
Organising entity: FUNDACION GENERAL DE LA UNIVERSIDAD DE ALICANTE
City organizing entity: Alicante, Valencian Community, Spain
Adriana Breda.
- 13** **Title of the work:** Criterios valorativos y normativos en la didáctica de las matemáticas: el constructo idoneidad didáctica
Name of the conference: Seminario de Postgrados
Type of participation: Participatory - invited/keynote talk
City of event: Talca, Chile
Date of event: 2018
Organising entity: Universidad Católica del Maule
City organizing entity: Talca, Chile
Adriana Breda.
- 14** **Title of the work:** Criterios valorativos y normativos en la didáctica de las matemáticas: el constructo idoneidad didáctica
Name of the conference: Seminarios de Postgrados
Type of participation: Participatory - invited/keynote talk
City of event: Osorno, Chile
Date of event: 2018
Organising entity: Universidad de Los Lagos
City organizing entity: Osorno, Chile
Adriana Breda.
- 15** **Title of the work:** Desarrollo de la competencia en análisis e intervención didáctica en un ciclo formativo que combina el uso de los criterios de idoneidad didáctica y la metodología estudio de clase
Name of the conference: XXXII Reunión Latinoamericana de Matemática Educativa
Type of participation: Participatory - oral communication
City of event: Medellín, Colombia
Date of event: 2018
Organising entity: Universidad de Medellín
Type of entity: University
City organizing entity: Medellín, Colombia
Adriana Breda.
- 16** **Title of the work:** EL USO DE LOS CRITERIOS DE IDONEIDAD DIDÁCTICA EN LA FORMACIÓN DE PROFESORES
Name of the conference: XXXII Reunión latinoamericana de Matemática Educativa
Type of participation: Participatory - invited/keynote talk
City of event: Medellín, Colombia
Date of event: 2018
Organising entity: Universidad de Medellín
Type of entity: University
City organizing entity: Medellín, Colombia
Adriana Breda.

- 17** **Title of the work:** Mesa redonda jóvenes investigadores (Juventud Clame)
Name of the conference: XXXII Reunión Latinoamericana de Matemática Educativa
Type of participation: Participatory - invited/keynote talk
City of event: Medellín, Colombia
Date of event: 2018
Organising entity: Universidad de Medellín/Juventud Clame
Type of entity: University
City organizing entity: Medellín, Colombia
Adriana Breda.
- 18** **Title of the work:** Rúbrica para evaluar la competencia digital en los futuros profesores de secundaria de matemáticas.
Name of the conference: XXXII Reunión Latinoamericana de Matemática Educativa
Type of participation: Participatory - oral communication
City of event: Medellín, Colombia
Date of event: 2018
Organising entity: Universidad de Medellín
Type of entity: University
City organizing entity: Medellín, Colombia
Adriana Breda.
- 19** **Title of the work:** Análisis didáctico en un trabajo de fin de máster de un futuro profesor
Name of the conference: XXI Simposio de la sociedad española de investigación en educación matemática
Type of event: Conference
Geographical area: National
Type of participation: Participatory - oral communication
Reasons for participation: Review before acceptance
Corresponding author: No
City of event: Zaragoza, Spain
Date of event: 2017
End date: 2017
Organising entity: Sociedad Española de investigación en Educación Matemática(SEIEM)
Publication in conference proceedings: Yes
With external admission assessment committee: Yes
Type of contribution: Scientific paper
Font, V.; Breda, A.; Pino-Fan, L."Análisis didáctico en un trabajo de fin de máster de un futuro profesor". En: Investigación en Educación Matemática XXI. pp. 247 - 256. (Spain): Sociedad Española de investigación en Educación Matemática(SEIEM, 2017. ISSN 1888-0762, ISBN 978-84-16723-42-3
- 20** **Title of the work:** Análisis didáctico realizado por un profesor en su trabajo de fin de máster
Name of the conference: VIII Congreso iberoamericano de Educación Matemática
Type of event: Conference
Geographical area: Non EU International
Type of participation: Participatory - oral communication
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Madrid, Spain
Date of event: 2017
End date: 2017
Organising entity: Federación Iberoamericana de Sociedades de Profesores de Matemáticas.
Type of entity: Associations and Groups
With external admission assessment committee: Yes
Type of contribution: Scientific paper



Breda, A.; Font, V.; Madruga, Z.E.F.; Lima, V.R.M. "Análisis didáctico realizado por un profesor en su trabajo de fin de máster". En: Actas del VIII Congreso iberoamericano de Educación Matemática. Federación Iberoamericana de Sociedades de Profesores de Matemáticas.,

- 21** **Title of the work:** Concepciones de profesores chilenos sobre la creatividad matemática
Name of the conference: XXXI Reunión Latinoamericana de Matemática Educativa
Type of event: Conference **Geographical area:** International
Type of participation: Participatory - oral communication
City of event: Lima, Peru
Date of event: 2017
End date: 2017
Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME) **Type of entity:** Other organisms
 Breda, A.; Seckel, M. J.; Font, V.; Pino-Fan, L. "Actas en prensa".
- 22** **Title of the work:** Creatividad de los futuros profesores de matemáticas en el diseño de tareas de contexto extramatemático
Name of the conference: XXXI Reunión Latinoamericana de Matemática Educativa
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication **Reasons for participation:** Review before acceptance
Corresponding author: No
City of event: Lima, Peru
Date of event: 2017
End date: 2017
Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME) **Type of entity:** Other organisms
With external admission assessment committee: Yes
Type of contribution: Scientific paper
 Font, V.; Pino-Fan, L.; Breda, A.; Sala, G. "Actas en prensa". En: Acta Latinomericana de Matemática Educativa 31. CLAME,
- 23** **Title of the work:** Creatividad en las propuestas de trabajos de final de máster de futuros profesores de matemáticas
Name of the conference: XXXI Reunión Latinoamericana de Matemática Educativa
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication **Reasons for participation:** Review before acceptance
Corresponding author: No
City of event: Lima, Peru
Date of event: 2017
End date: 2017
Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME) **Type of entity:** Other organisms
With external admission assessment committee: Yes
Type of contribution: Scientific paper
 Sánchez, A.; Font, V.; Breda, A.; Pino-Fan, L. "Actas en prensa". En: Acta Latinoamericana de Matemática Educativa 31. CLAME,
- 24** **Title of the work:** Creatividad, competencia digital y formación de docentes de matemáticas en secundaria
Name of the conference: XXXI Reunión Latinoamericana de Matemática Educativa
Type of event: Conference **Geographical area:** International



Type of participation: Participatory - oral communication

Corresponding author: No

City of event: Lima, Peru

Date of event: 2017

End date: 2017

Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)

Type of entity: Other organisms

Carvajal, S.; Giménez, J.; Breda, A.; Font, V. "Actas en prensa".

- 25 Title of the work:** Criterios utilizados por un profesor para justificar su propuesta didáctica: un estudio de un trabajo de fin de máster

Name of the conference: Segundo Congreso Internacional Virtual sobre el Enfoque Ontosemiótico del Conocimiento y la Instrucción Matemáticos

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

City of event: Granada, Spain

Date of event: 2017

End date: 2017

Organising entity: Facultad de Ciencias de la Educación. Universidad de Granada

Type of entity: University

Publication in conference proceedings: Yes

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Breda, A.; Font, V.; Lima, V. M. R.; Pereira, M. V. "Criterios utilizados por un profesor para justificar su propuesta didáctica: un estudio de un trabajo de fin de máster.". En: Actas del Segundo Congreso Internacional Virtual sobre el Enfoque Ontosemiótico del Conocimiento y la Instrucción Matemáticos. Andalusia (Spain): Universidad de Granada, 2017. Available on-line at: <enfoqueontosemiotico.ugr.es/civeos.html>. ISBN 978-84-617-9047-0

- 26 Title of the work:** Didactic assessment over final work of a master for mathematics teachers in service
Name of the conference: Tenth Congress of the European Society for Research in Mathematics Education - CERME10

Type of event: Conference

Geographical area: European Union

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

Corresponding author: Yes

City of event: Dublin, Ireland

Date of event: 2017

End date: 2017

Organising entity: European Society for Research in Mathematics Education

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Breda, A.; Font, V.; Pino-Fan, L.; Lima, V.R.M. "Didactic assessment over a final work of a master for mathematics teachers in service". En: Proceedings of the Tenth Congress of the European Society for Research in Mathematics Education. European Society for Research in Mathematics Education,

- 27 Title of the work:** Incidencias en Latinoamérica de un marco teórico inclusivo en la investigación en educación matemática

Name of the conference: XXXI Reunión Latinoamericana de Matemática Educativa

Type of event: Conference

Geographical area: International

City of event: Lima, Peru



Date of event: 2017

End date: 2017

Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)

Type of entity: Other organisms

Pino-Fan, L.; Font, V.; Breda, A.; Seckel, M. J. "Actas en prensa".

- 28 Title of the work:** Mathematics teachers' knowledge and competences model based on the onto-semiotic approach.

Name of the conference: 41st Conference of the International Group for the Psychology of Mathematics Education

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

Corresponding author: No

City of event: Singapur, Singapore

Date of event: 2017

End date: 2017

Organising entity: International Group for the Psychology of Mathematics Education

Type of entity: University

Publication in conference proceedings: Yes

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Pino-Fan, L. R.; Font, V.; Breda, A. "Mathematics teachers' knowledge and competences model based on the onto-semiotic approach. In Kaur, B., Ho, W.K., Toh, T.L., & Choy, B.H. (Eds.). Proceedings of the 41st Conference of the International Group for the Psychology of Mathematics Education, Vol. 4, pp. 33-40. Singapore: PME.". En: Proceedings of the 41st Conference of the International Group for the Psychology of Mathematics Education. 4, pp. 33 - 40. PME., 2017. ISBN 978-981-11-3742-6

- 29 Title of the work:** O uso de contextos científicos nos trabalhos finais de curso de um mestrado profissional em matemática

Name of the conference: X Congreso Internacional sobre Investigación en Didáctica de las Ciencias

Type of event: Conference

Geographical area: International

Type of participation: Participatory - oral communication

Reasons for participation: Open access

Corresponding author: Yes

City of event: Sevilla, Andalusia, Spain

Date of event: 2017

End date: 2017

Organising entity: Revista Enseñanza de las Ciencias

City organizing entity: Sevilla, Spain

Publication in conference proceedings: Yes

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Breda, A.; Pino-Fan, L. R.; Font, V.; Madruga, Z. E. "Revista Enseñanza de las Ciencias, número extraordinario". En: Revista Enseñanza de las Ciencias. Extraordinario, pp. 2453 - 2458. (Spain): Revista Enseñanza de las Ciencias, 2017. ISSN 2174-6486

- 30 Title of the work:** Processo e heranças de inovação educacional: legados de um projeto internacional. Enseñanza de las Ciencias, numero extraordinario

Name of the conference: X Congreso Internacional sobre Investigación en Didáctica de las Ciencias

Type of event: Conference

Geographical area: International

Type of participation: Participatory - oral communication

Reasons for participation: Open access



Corresponding author: No

City of event: Sevilla, Andalusia, Spain

Date of event: 2017

End date: 2017

Organising entity: Revista Enseñanza de las Ciencias

City organizing entity: Sevilla, Spain

Publication in conference proceedings: Yes

With external admission assessment committee:
Yes

Type of contribution: Scientific paper

Harres, J.B.S.; Lima, V. M. R.; Gessinger, R. M.; Delord, G. C. C.; Breda, A.; Balzano, E.; Serpico, M.; Cuomo, F.; Michinnini, C. "Revista Enseñanza de las Ciencias, número extraordinario". En: Revista Enseñanza de las Ciencias. Extraordinario, pp. 333 - 337. (Spain): Revista Enseñanza de las Ciencias, 2017. ISSN 2174-6486

31 Title of the work: Regularidades en la reflexión de futuros profesores sobre su práctica

Name of the conference: XXXI Reunión Latinoamericana de Matemática Educativa

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

Corresponding author: No

City of event: Lima, Peru

Date of event: 2017

End date: 2017

Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)

Type of entity: Other organisms

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Seckel, M. J.; Breda, A.; Font, V. "Actas en prensa". En: Acta Latinoamericana de Matemática Educativa 31. CLAME,

32 Title of the work: Regularidades en la reflexión del profesor de matemáticas

Name of the conference: VIII Congreso Iberoamericano de Educación Matemática (VIII CIBEM)

Type of event: Conference

Geographical area: International

Type of participation: Participatory - oral communication

City of event: Madrid, Spain

Date of event: 2017

End date: 2017

Organising entity: Federación Iberoamericana de Sociedades de Educación Matemática

Type of entity: Associations

Font, V.; Pino-Fan, L.; Breda, A. "Actas en prensa".

33 Title of the work: A melhoria do ensino de matemática e o uso das TICs

Name of the conference: EDUMATEC

City of event: PORTO ALEGRE, Brazil

Date of event: 2017

End date: 2017

Organising entity: UFRGS

34 Title of the work: Conocimiento didáctico-matemático de los profesores: Criterios para la reflexión sobre la práctica

Name of the conference: XXX Jornada de Matemática de la Zona Sur

Corresponding author: Yes

City of event: CONCEPCIÓN, Chile

Date of event: 2017

End date: 2017

Organising entity: Universidad Católica de la Santísima Concepción (UCSC)

City organizing entity: Universidad Católica de la Santísima Concepción (UCSC), Breda, A.,

- 35** **Title of the work:** Establishing criteria for teacher's reflection on their own practices.
Name of the conference: 40th Conference of the International Group for the Psychology of Mathematics Education
Type of event: Conference
Type of participation: 'Participatory - poster
Geographical area: Non EU International
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Szeged, Hungary
Date of event: 2016
End date: 2016
Organising entity: International Group for the Psychology of Mathematics Education
Type of entity: Associations and Groups
Type of contribution: Scientific paper
Breda, A.; Pino-Fan, L.; Font, V. "Establishing criteria for teachers' reflection on their own practices". En: Proceedings of the 40th Conference of the International Group for the Psychology of Mathematics Education. 1, pp. 283 - 283. PME, 2016. ISBN 9781365455063
- 36** **Title of the work:** Estudio de un caso sobre el análisis didáctico realizado en un trabajo final de un Máster para profesores de matemáticas en servicio
Name of the conference: Trigésima Reunión Latinoamericana de Matemática Educativa (Relme30)
Type of event: Conference
Type of participation: Participatory - oral communication
Geographical area: Non EU International
Reasons for participation: Review before acceptance
Corresponding author: Yes
City of event: Monterrey, Mexico
Date of event: 2016
End date: 2016
Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)
Type of entity: Associations and Groups
With external admission assessment committee: Yes
Type of contribution: Scientific paper
Breda, A.,; Font, V.; Lima, V. M. R. "Estudio de caso sobre el análisis didáctico realizado en un trabajo final de un máster para profesores de matemáticas en servicio". En: Acta Latinoamericana de Matemática Educativa. 30, pp. 365 - 373. Comité Latinoamericano de Matemática Educativa (CLAME), 2017. ISSN 2448-6469
- 37** **Title of the work:** Prácticas Innovadoras en el Aula de Matematica
Name of the conference: Jornada de Matematica Educaiva
Type of event: Workshop
City of event: Paillaco, Chile
Date of event: 2016
End date: 2016
Organising entity: Universidad San Sebastian



- 38** **Title of the work:** Análisis Didáctico de Profesores que realizan el máster profesional en matemáticas en la red nacional (PROFMAT): el caso del Rio Grande del Sur (Brasil)
Name of the conference: Seminario Internacional de Investigación en Educación Matemática
City of event: Osorno, Chile
Date of event: 2016
End date: 2016
Organising entity: Universidad de Los Lagos
- 39** **Title of the work:** Desarrollo de la competencia digital en la formación de futuros profesores a través del análisis sobre su propia práctica
Name of the conference: Trigésima Reunión Latinoamericana de Matemática Educativa - RELME30
Corresponding author: No
City of event: Monterrey, Mexico
Date of event: 2016
End date: 2016
Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)
Carvajal, S; Breda, A.; Font, V."Carvajal, S., Breda, A., Font, V. (2017). Desarrollo de la competencia digital en futuros profesores a través de la reflexión sobre su propia práctica, Acta latinoamericana de matemática Educativa, 30(1), 1144-1152". ISSN 24486469
- 40** **Title of the work:** Tendencias Actuales en Educación Matemática: ejemplos de tareas para una enseñanza de mejor calidad
Name of the conference: XIII Encuentro Metodos de Enseñanza de la Matemática
Corresponding author: Yes
City of event: Santiago, Chile
Date of event: 2016
End date: 2016
Organising entity: Universidad San Sebastian
Breda, A.
- 41** **Title of the work:** Conceptualización de competencia reflexiva y dificultades en su desarrollo
Name of the conference: Vigésimo novena Reunión Latinoamericana de Matemática Educativa (Relme29)
Type of event: Conference
Geographical area: Non EU International
Type of participation: Participatory - oral communication
Reasons for participation: Review before acceptance
Corresponding author: No
City of event: Panamá, Panama
Date of event: 2015
End date: 2015
Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)
Type of contribution: Scientific paper
Seckel, M. J.; Breda, A.; Font, V.; Sala, G. "Conceptualización de competencia reflexiva y dificultades en su desarrollo". En: Acta Latinoamericana de Matematica Educativa, 29. 29, pp. 1014 - 1021. Comité Latinoamericano de Matemática Educativa (CLAME), 2016. ISSN 2448-6469
- 42** **Title of the work:** Papel dos recursos tecnológicos na Formação de Professores do Curso de Mestrado Profissional em Matemática em Rede Nacional PROFMAT - Brasil
Name of the conference: La competencia digital y su relación con otras competencias en la formación de profesores de matemáticas de secundaria en España, Chile y Brasil
City of event: Barcelona, Spain
Date of event: 2015
End date: 2015



Organising entity: Grup de Recerca Ensenyament i Aprenentatge Virtual- GREAV
Adriana Breda.

- 43** **Title of the work:** Desenvolvimento da competência em análise didática da matemática: uma proposta de estudo para a formação de professores - Brasil
Name of the conference: Vigésima octava Reunión Latinoamericana de Matemática Educativa (Relme28)
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication **Reasons for participation:** Review before acceptance
City of event: Barranquilla, Colombia
Date of event: 2014
End date: 2014
Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME) **Type of entity:** Associations and Groups
 Valderez Lima do Rosario; Adriana Breda. Comité Latinoamericano de Matemática Educativa (CLAME),
- 44** **Title of the work:** O Educar pela Pesquisa como Princípio Pedagógico no Seminário Integrado do Ensino Politécnico
Name of the conference: IV Seminário Institucional do Pibid; II Simpósio Nacional sobre Docência na Educação Básica; I Congresso Internacional de Ensino e Aprendizagens
Type of event: Seminar **Geographical area:** Non EU International
Type of participation: Participatory - oral communication
City of event: Lajeado, Brazil
Date of event: 2014
End date: 2014
Organising entity: UNIVATES
 Adriana Breda; Maurivan Ramos; Marcos Ribeiro. pp. 41 - 43. 2014. ISBN 9788577276462
- 45** **Title of the work:** A representação geométrica das soluções de sistemas de equações lineares através do software Geogebra: um estudo de caso com alunos do nono ano do ensino fundamental
Name of the conference: VII Congreso iberoamericano de Educación Matemática (VII CIBEM)
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication **Reasons for participation:** Review before acceptance
Corresponding author: No
City of event: Montevideo, Uruguay
Date of event: 2013
End date: 2013
Organising entity: Federación Iberoamericana de Sociedades de Educación Matemática (FISEM)
With external admission assessment committee: Yes
Type of contribution: Scientific paper
 Hummes, V. B.; Breda, A. "A representação geométrica das soluções de sistemas de equações lineares através do software Geogebra: um estudo de caso com alunos do nono ano do ensino fundamental". En: Actas del VII Congreso iberoamericano de Educación Matemática (VII CIBEM). pp. 6653 - 6660. Federación Iberoamericana de Sociedades de Educación Matemática (FISEM), 2013. ISSN 2301-0797
- 46** **Title of the work:** Construção dos sólidos platônicos na superfície esférica: uma introdução aos conceitos de geometria esférica através do software Spherical Easel
Name of the conference: XXVII Reunión Latinoamericana de Matemática Educativa
Type of event: Conference
City of event: Buenos Aires, Argentina
Date of event: 2013



End date: 2013

Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)

Type of contribution: Scientific paper

Adriana Breda; Viviane Hummes. "Construção dos sólidos platônicos na superfície esférica: uma introdução aos conceitos de geometria esférica através do software Spherical Easel". pp. 2088 - 2096. 2014. ISBN 9786079530679

47 Title of the work: Google Maps: una propuesta de utilización de Laptops Educativas para la enseñanza de la geometría plana con estudiantes de octavo grado de la escuela primaria

Name of the conference: VII Congreso Iberoamericano de Educación Matemática (VII CIBEM)

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

City of event: Montevideo, Uruguay

Date of event: 2013

End date: 2013

Organising entity: Federación Iberoamericana de Sociedades de Educación Matemática (FISEM)

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Breda, A.; Hummes, V. B. "Google Maps: una propuesta de utilización de Laptops Educativas para la enseñanza de la geometría plana con estudiantes de octavo grado de la escuela primaria". En: Actas del VII Congreso Iberoamericano de Educación Matemática. pp. 6852 - 6859. Federación Iberoamericana de Sociedades de Educación Matemática (FISEM), 2013. ISSN 2301-0797

48 Title of the work: Torre de Hanói virtual e a construção do conceito de função exponencial no ensino médio: um processo que parte da intuição a caminho da formalização

Name of the conference: XXVI Reunión Latinoamericana de Matemática Educativa

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

City of event: Belo Horizonte, Brazil

Date of event: 2012

End date: 2012

Organising entity: Comité Latinoamericano de Matemática Educativa (CLAME)

City organizing entity: Belo Horizonte, Brazil

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Viviane Hummes; Adriana Breda. En: Torre de Hanói virtual e a construção do conceito de função exponencial no ensino médio: um processo que parte da intuição a caminho da formalização. 26 - 1, pp. 508 - 510. ISBN 9788528803082

R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

- 1** **Committee title:** Parecerista da XXXII Reunión Latinoamericana de Matemática Educativa (RELME32)
Affiliation entity: Universidad de Medellín **Type of entity:** University
City affiliation entity: Medellín, Colombia
Start-End date: 2018 - 2018
- 2** **Committee title:** II Congresso Internacional de Ensino e Aprendizagens, VI Seminário Institucional do PIBID e III Seminário Observatório da Educação da Univates
End date: 2017
- 3** **Committee title:** XII Congreso Argentino de Educación Matemática
End date: 2016
- 4** **Committee title:** Primer Encuentro Latinoamericano de Etnomatemática- ELEm 1
End date: 2016
- 5** **Committee title:** IV Encontro do PIBID do IFMG
End date: 2015
- 6** **Committee title:** Sociedad Española de Investigación en Educación Matemática
End date: 2015
- 7** **Committee title:** V Seminário do Pibid/Univates e III Simpósio Nacional sobre Docência na Educação Básica
End date: 2015
- 8** **Committee title:** IV Seminário Institucional do Pibid; II Simpósio Nacional sobre Docência na Educação Básica; I Congresso Internacional de Ensino e Aprendizagens
End date: 2014
- 9** **Committee title:** III Seminário Institucional do Pibid e I Simpósio Nacional sobre Docência na Educação Básica
End date: 2013
- 10** **Committee title:** I Mostra Científica Ensino Medio Politécnico
End date: 2013
- 11** **Committee title:** Feira de Ciências e Inovação do Museu de Ciências e Tecnologias
End date: 2009

Evaluation and revision of R&D projects and articles

- 1** **Name of the activity:** Evaluación
Performed tasks: Juez evaluador internacional de los instrumentos de pretest en el proyecto FONIDE 1700070
Entity where activity was carried out: Universidad católica del Maule **Type of entity:** University
City of entity: Talca, Chile
Start date: 2018
- 2** **Performed tasks:** Review for Journal
Entity where activity was carried out: CADERNO PEDAGÓGICO (LAJEADO. ONLINE) **Type of entity:** University
City of entity: Lajeado, Brazil
Start date: 2018
- 3** **Name of the activity:** Evaluador
Performed tasks: Juez evaluador internacional de los instrumentos de posttest en el proyecto FONIDE 1700070
Entity where activity was carried out: Universidad Católica del Maule **Type of entity:** University
City of entity: Talca, Chile
Start date: 2018
- 4** **Performed tasks:** Review for Journal
Entity where activity was carried out: Eurasia Journal of Mathematics Science and Technology Education
Start date: 2017
- 5** **Performed tasks:** Review for Journal
Entity where activity was carried out: BOLEMA : Boletim de Educação Matemática (Online)
Start date: 2016
- 6** **Performed tasks:** Review for Journal
Entity where activity was carried out: C&E. Cultura y Educación
Start date: 2016
- 7** **Performed tasks:** Review for Journal
Entity where activity was carried out: Educação e Pesquisa - Revista da Faculdade de Educação da USP
Start date: 2016
- 8** **Performed tasks:** Review for Journal
Entity where activity was carried out: International Journal of Science and Mathematics Education
Start date: 2016
- 9** **Performed tasks:** Review for Journal
Entity where activity was carried out: Praxis & Saber - Revista de Investigación en Educación y Pedagogía
Start date: 2016



- 10 Performed tasks:** Review for Journal
Entity where activity was carried out: REDIMAT - Journal of Research in Mathematics Education
Start date: 2016
- 11 Performed tasks:** Review for Journal
Entity where activity was carried out: Revista Signos
Start date: 2016
- 12 Performed tasks:** Review for journal
Entity where activity was carried out: Educational Studies in Mathematics, ISSN 0013-1954
Type of entity: Business
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 1
Access system: Designated by the corresponding party without competition
Geographical area: International
Start date: 2016
- 13 Performed tasks:** Review for Journal
Entity where activity was carried out: Revista Eletrônica da Matemática
Start date: 2015
- 14 Performed tasks:** Review for Journal
Entity where activity was carried out: UDCA Revista: actualidad y divulgacion científica
Start date: 2015
- 15 Name of the activity:** Revista Latinoamericana de Investigación en Matemática Educativa (RELIME)
Performed tasks: Review for Journal
Entity where activity was carried out: Revista Latinoamericana de Investigación en Matemática Educativa (RELIME)
Start date: 2012
- 16 Performed tasks:** Review for Journal
Entity where activity was carried out: Revista Latinoamericana de Etnomatemática. RLE (Pasto)
Start date: 2011

Other achievements

Stays in public or private R&D centres

Entity: Universitat de Barcelona
Type of entity: University
Faculty, institute or centre: Facultat de Formació del Professorat
City of entity: Barcelona, Catalonia, Spain
Start-End date: 09/2014 - 06/2015
Duration: 10 months
Funding entity: CAPES (Brasil)
Type of entity: Public Research Body
City funding entity: Brasília, Brazil
Name of programme: Programa de Doctorado Sandwich en el Exterior
Goals of the stay: Doctorate
Acquired skills developed: Investigación en la formación de profesorado



Scientific societies and professional associations

Name of the society: Comité Latinoamericano de Matemática Educativa

Start date: 03/08/2017