

WORLD FEDERATION OF ASSOCIATIONS FOR TEACHER EDUCATION (WFATE)

Fourth Biennial International Conference

Innovation in Teacher Education within a Global Context

Synthesis Document



Barcelona, 27th April 2016




COL·LEGI OFICIAL DE DOCTORS
I LLICENCIATS EN FILOSOFIA I LLETRES
I EN CIÈNCIES DE CATALUNYA
*Col·legi dels docents
i dels professionals de la cultura*

Societat Catalana de Pedagogia
Institut d'Estudis Catalans



Synthesis Document

The World Federation of Associations of Teacher Education (WFATE), in partnership with the Col·legi de Doctors i Llicenciats en Filosofia i Lletres i en Ciències de Catalunya, the Societat Catalana de Pedagogia (IEC), University of Barcelona, Ramon Llull University, and the Catalonia Ministry of Education, all Faculties of Education in Catalonia, and the Education area of City Council of Barcelona sponsored the Fourth Biennial International Conference, celebrated in Barcelona April 21-23, 2016.

Pre-conference Planning

The content coming out of the WFATE conference proceedings was developed over a long-term process that began in 2014. The Board selected the theme of the conference, “*Innovation in Teacher Education within a Global Context*”, to reflect the need in teacher education to build capacity for educators able to go beyond 21st Century skills to prepare learners for the challenges presented in a knowledge society. The conference proceedings aimed to build educational and cultural capacities that could support innovation at all levels to increase the knowledge-creation talent supply and make place for all in the Knowledge Age.

The conference brought together a wide variety of teacher educators from across the globe eager to seek responses to the major world education indicators, which point to a needed transformation and change in learning and teaching. The local Barcelona-based organizing committee, led by WFATE President-elect Mireia Montane, worked to expand on the conference theme approved by the Board, and recommended the resulting 15 sub-themes of the conference:

1. Multiculturalism and Multilingualism
2. Technology and Mobile Learning for Pedagogical Innovations in Teacher Education
3. International / Local Teacher Education networking for Knowledge-Building
4. Teacher Education Curriculum and School Curriculum
5. and 6. School / University / Educational Administrations Partnerships for Creative Initiatives in Teacher Education – A distributed leadership for school innovation management
7. Monitoring and Evaluating Innovation in Teacher Education
8. and 9. Change for Innovation in Teacher Education / Initial and Ongoing Teacher Education for Innovation
10. Health, Physical/Sport Education and Physical Arts Education
11. Supporting STEM Education Through Teacher Preparation and Professional Development
12. Strategies for overcoming inertia in Teacher Education
13. Disability Studies, Inclusion and Social Justice in Teacher Education
14. Innovation in Teacher Training for Early Childhood Education
15. Social Sciences Teacher Education for a New Era

Those recommendations were brought to the WFATE Board's meeting in Paris to be ratified, thus beginning a true collaborative effort that was fine-tuned throughout the time leading up to the conference event.

For each sub-theme, definitions and preliminary descriptions were developed, and the invitation for papers was sent out to WFATE members in the fall of 2015. As paper proposals were reviewed by the Board, abstracts were sent to the local organizing committee classified by themes. Meanwhile, 4-5 chairs of each sub-theme were selected for a global mix, and members of the sub-theme groups were also selected from the diverse geographic areas in which WFATE members are active. All chairs from each sub-theme then began to communicate with each other through email, skype and other Internet-based communication platforms to make sure they had agreed on the sub-theme's definition while coming up with descriptions in coherence with the conference theme, and to give each sub-theme chair a better idea of what had to come out of the charrette sessions.

The sub-theme chairs met face-to-face for the first time during the charrette sessions to make an oral presentation of their theme. All chairs had the complete set of papers selected for content that would bring forth the best ideas about innovation in teacher education and to decide which might produce the new dynamic structure, evolution, and teacher education required for a constantly-changing society. It is the intention of the WFATE Board to convert these to become permanent working groups. Some may decide their job is done; others, however, will want to continue their work, making the next WFATE conference in Melbourne an opportunity to bring members together in collaboration while bringing more people into the groups.

Because this work in setting the stage for dialogue on the sub-themes was so profound, it was impossible to excerpt the vast amount of information, knowledge and experience reflected in the work of each sub-group. Therefore, we have retained the general ideas, challenges and recommendations of each sub-theme un-edited, as presented by the sub-theme chair. These are contained in an appendix to the proceedings document. The complete conference proceedings with the Appendix of sub-theme groups, will be made available online by WFATE and Ramon Llull University. Additionally, the third issue of the Journal of the World Federation of Associations for Teacher Education, a peer-reviewed journal, will contain all complete papers submitted, scheduled to be published in August, 2016.

Conference Proceedings

In order to craft the conference proceedings in a meaningful manner, we asked ourselves three basic questions:

- Why did we come?
- What did we learn?

- What will we be taking home to change teacher education in our own country?

We attempted to answer these questions in the broad sense, as reflected in the dialogue that took place during the conference's events.

This year's WFATE conference attempted to give us a universal view of innovation in teacher education. It allowed us to look at innovation in teacher education in a global manner instead of the traditional way of looking at education from a local perspective. While WFATE members have always focused on teacher education, the conference gave us a venue to continue sharing ideas and building networks.

The parallel sessions produced a richness of dialogue around the sub-themes aimed at improving on ideas, suggesting collaborations and networking with each other. Participating in the conference brought forth the importance of knowing the context of different settings in which education operates. Each education system around the globe is unique, relying on a wide variety of teacher training program. Teachers, however, do not have to work alone. Under the conference's theme, "*Innovation in Teacher Education within a Global Context*," the conference allowed us to gain exposure to differences in order to understand context within a global view that will give us the "big picture." There may exist a wide variety of differences but at the same time we shared commonalities, which render our differences less important. The internationalization aspect of the conference was important to broaden perspectives – allowing us to "get outside our own skin" and "walk in others' shoes," and made us realize that, akin to a big puzzle, every institution forms a piece of the larger picture and can find their place among others. This brings about a realization that a single institution is not the center of the picture, but can find itself among colleagues grappling with some of the same issues and challenges.

This exercise in globalization expands the definition of community, which is no longer confined to a geographically-defined area. However, as we saw with the case study about children learning the relationship of the past with the present and the future by studying local archeological sites, the concept of community also includes activities that lead to a richness of understanding the local environs in order to define the problems facing a local community. When children are able to compare these problems identified at a local level and develop relationships with their peers in communities in other parts of the world experiencing similar problems, learning becomes global.

Another important aspect of the conference was to showcase the relationship between higher education and the early childhood, primary and secondary education systems. Teacher preparation programs must work with schools, forming solid relationships as more of a partnership. Classrooms are not changing as fast as we thought they would, and many still look like they did 100 years ago. Often, teachers can better understand what changes must take place for the needed transformation toward embracing

innovation, and, therefore, teacher training program should recognize that this experience is fertile ground for research on real-world applications in teacher education. Collaboration between schools and higher education, however, is not easy. Recommendations came forth regarding the university and school systems needing to be open to each other. But in order to effectively work together, we all must be comfortable with criticism and innovation. Additionally, it is hard to communicate between higher education and school systems. Further recommendations included the need to have someone who speaks “school” in a university setting, and someone who speaks “teacher training” in a school setting.

In regards to collaboration, we heard from diverse voices that will lead toward understanding different points of views and creating networking that will allow us to focus on problems where common-approach solution would be welcomed. Therefore, we should agree to discard competition to embrace collaboration and creativity. Although much teacher training can be accomplished online, it is also important to have regular face-to-face meetings. The conference brought us together to plan collaborative endeavors, network and learn from one another.

Other important themes of the conference included innovation, assessment, communication, physical space, and new technologies:

- Innovation - looking at the familiar and making it different, even unfamiliar. Innovation is not only coming up with something new; it is coming up with a different way at looking at something, organizing our thinking differently, or taking a different approach. However, innovation must be based in a framework and efforts should be supported to change schools into learning communities. The documentation of innovations is important, as well. Finally, we must keep in mind that better learning is our main goal.
- Assessments. Everyone agreed that evaluation is needed to determine whether something was done well. The question on everyone’s mind was whether assessments would become institutionalized. Additionally, the qualitative aspect of assessment, on which decisions will be made, was also brought forth as an important issue in teacher education. The purpose, design, results and interpretation of assessments are important considerations.
- Communication. Sometimes things have to be communicated to others helping to build knowledge. For example, Marlene Scardamalia focused a portion of her presentation on the differences between critical thinking and design thinking in order to improve ideas and grow individual ideas to a bigger idea.
- Physical space. The inauguration of the 21st Century Classroom, a joint venture between the Ramon Llull University and Steelcase, presented conferees with new ways of organizing classrooms: mobile chairs, power outlets in the floor, multiple-screen displays, and furniture that can be reconfigured for the purpose of the class.

- New technologies. Although the use of new technologies in the classroom is important, it should not be the only goal. Teacher training must provide educators with the tools to determine the purpose innovation serves, especially in relation to providing benefits for the learner. We shouldn't lose our focus on learning being the most important outcome for students, who grow from learning experiences.

In focusing dialogue around teacher education, it was agreed that teachers are crucial at this moment to apply new ways of learning, and are the key to change in the education landscape. We need different kinds of teachers for the new challenges we face. What kind of teacher do we need? Dialogue around teacher education painted a different picture of who the teacher should be and what competences they should have. We didn't expect to find a single model for teacher preparation, and found there are lots of ways to educate teachers. An important issue refers to students needing to acquire skills for the 21st Century workforce. After reflecting on the number of new jobs created over the past 5-10 years, questions were asked about how teachers can prepare students for jobs that do not even exist through teacher education programs that reflect real-life situations.

One of the big changes needed is requiring a more global perspective in teacher education, because globalization is a fact of life. People are moving around more. Mass migration is happening, changing, for example, the language landscape of the classroom. We must try to educate teachers in the same ways schools are trying to accommodate a changing demographic of students. If we insist on teaching in antiquated ways of the past, we will fail. Acquiring technology competencies is an important component of teacher education.

Another change needed in education is to remove the silos and teaching isolation - teachers should not have to work alone. There are multiple opportunities for collaboration and networking. Teaching must accommodate differences - a wide variety of beliefs, students having different motivations to learn, for example – so that equity can be present in learning to become inclusive, accessible to all.

Additional topics discussed at the conference included:

Research – Teachers should be researchers of their students and cooperate with university researchers to reflect on practice. Collaboration needs be defined by projects, to serve as a knowledge-building link. Frequently, we forget how fertile the classroom can be for action research.

Equity – make education universally accessible, without leaving certain students behind.

Community Responsibility – Teacher educators have a responsibility both to a local community and to a global community. Education and educators should be

characterized by an ethical commitment. Professional and ethical responsibility is important, to make sure all learn and grow holistically.

Conferees were offered an opportunity to visit two local schools, to see first-hand how innovation has been practically applied.

We are grateful to all the planners and participants for the rich discussion of critical issues facing teacher educators. We hope that the ideas and dialogue that have taken place during the “*Innovation in Teacher Education within a Global Context*” conference will help all of us grow and innovate, and continue the collaboration. We will see you all in Melbourne in 2018. Thank you very much!

This document was prepared through the collaborative efforts of many. We give special thanks to the organizing committee for the conference proceedings: Ann Shelly, Josep Gallifa, Carme Amoros, and Sandra Lund. We also thank Paula Mayoral and Eva Liesa from Ramon Llull University for their assistance.

APPENDIX – Sub-theme general ideas, challenges and recommendations

1. Multiculturalism and Multilingualism

Chairs: Jane McCarthy, Mompoin de Gaillart, Martí Teixidó, Mònica Pereña, Llorenç Comajoan.

This summary has been written by the chairs with the collaboration of Mercè Bernaus.

Contemporary societies are characterised and enriched by linguistic and cultural diversity, by migration and mobility, but we only truly value and treasure these characteristics by recognising and responding to the associated challenges. We expand the definition of diversity that includes language, sociocultural and gender issues. How do we prepare teachers to provide equity of opportunity to all students? Education in the widest sense – the learning and teaching of many languages in formal, informal and non-formal contexts, as well as the provision for teacher education and the implementation of language policies – is key: lifelong, quality language education supports not only educational and professional success, but personal development, human values and a sense of self-worth, all of which help democratic citizenship and social cohesion in a global society.

The increasing globalization of our educational systems necessitates the preparation of teachers who are comfortable working effectively with students of diversity. Educational failure is partly determined by an inadequate command of a wide range of linguistic forms. A multicultural and multilingual approach requires relevant methodological changes oriented to learning languages to communicate. That is teaching to learn languages instead of teaching languages.

What are the best practices of teacher education programs that can insure outstanding teachers for all the students of our world community? This sub-theme will provide opportunities to share successful preparation programs that result in the academic achievement of all children.

MAIN CONCLUSIONS FROM PRESENTATIONS

Proposals to improve Teacher Training

- How to help future teachers build awareness of multiculturalism and translate this knowledge into effective teaching strategies that build on the strengths of all students.
- How Plurilingualism and Interculturality could help building up societies together (native born and foreign citizens)
- Make teachers aware of the importance of valuing and preserving student native languages while helping them becoming fluent in the language of schooling.
- Working with communities to help them understand to value and preserve their native language and culture.
- Define the characteristics and needs for a plurilingual student.

- Work toward autonomous learning where students take responsibility for their own learning. More strategies for metacognition in all subjects.
- Introduce in pre-service and in in-service teacher training second languages methodologies and didactic strategies to teach in diverse cultural and linguistic classrooms.
- Provide teachers with information and the use of new tools such as project based learning and personal strategies for learning.
- Promote networks for teachers and teacher trainers with different professional profiles.
- Promote peer-work to update methodologies and practices.
- Intensify work among Administration, researchers and teachers.
- Conduct more research on powerful ways of teaching bilingualism
- New ways of assessing teacher competence (portfolios, etc.)
- Formative assessment

FINAL CONCLUSION

Participants at this session came away with a richer knowledge of the issues surrounding multicultural and multilingual education in a global society and strategies and tools to help teachers and schools more effective in meeting the needs of their students and providing equity of opportunity for success.

2. Technology and mobile learning for pedagogical innovations in Teacher Education

Chairs: Paul Resta, Miroslava Cernochova, Mercè Gisbert, Ferran Ruiz, Jordi Vivancos, Christian Perreault

This summary has been written by the chairs with the collaboration of Susan Dreger.

The sub-theme “Technology and mobile learning for pedagogical innovations in Teacher Education” has provided an opportunity to share best practices and research in the ways that new technologies may support innovative pedagogical practices, based on the competencies and skills needed for teacher education in the 21st century. It will also provide an opportunity to focus on critical aspects of digital technology in teacher education.

Digital technologies have brought about many changes in the world of education. Not only has technology enabled learners to access Whatever, Whenever, Wherever, it has also brought about a paradigm shift that has created new ways of teaching and learning. Digital technologies could do more than they are currently doing in the majority of the schools. They could provide an even more significant impact in the learning process if digital devices were used both for personalised learning and in authentic project-based scenarios.

As the main aspect to highlight of this sub theme we see that educational innovation will only takes place if teachers are aware and committed to improving their digital competencies both at initial training and through professional development and lifelong learning. The main priority of teachers’ digital competence should therefore be a shift in methodologies and pupil centered learning design activities.

FUTURE ACTIONS AND DISCUSSION FOR THE WORKING GROUP:

After two days of discussing and sharing presentations and ideas, our group has come up with the following reflections and ideas for improving teachers’ digital competencies and methodologies in general. Post-session ideas:

- Identify what good teaching looks like. Each country and each individual has his/her own definition. There needs to be some standardization among the countries.
- A ‘Map of Innovation’ could be created where educators from the participating countries (WFATE) share their resources, videos and examples of good practices, local resource repositories, etc. (similar to Mobile History Map idea) Private and public-funded stakeholders could collaborate in order to make it feasible.
- Teachers don’t need to be taught so much about new technologies but about NEW METHODOLOGIES and ways of teaching. Students need an active role and technology must be integrated in an authentic way based on some type of project-based work. Digital competencies have to work side by side the others

such as learning-to-learn, autonomy, oral communication, critical thinking skills, etc. The PROCESS is the most valued learning tool. Teachers need to take advantage of technology and tools in order to reach ALL students and help bridge the gap amongst our diverse students (low achievers, high achievers, blind, deaf, ADS, cognitive disabilities, etc...)

- Teachers in training need to be trained by qualified up-to-date university teachers who include not only digital technologies but also the knowledge they need to know about the safe use of digital devices, copyright issues, etc. The use of technology and new methodologies need to be embedded into their degree in order to reflect today's 21st Century learners.
- The schools chosen as a model for initial training teachers doing their practicum need to be better chosen in order to reflect good models with regards to the use of digital devices and new methodologies. For example, digital devices need to be allowed in order for these upcoming teachers to learn how to use them for educational purposes.
- The parametres/requirements for passing new teachers should be more demanding and include an innovative dimension.
- A new culture of assessment to IMPROVE teachers practices who are already in the system needs to be thought about. (peer evaluations, observation by qualified teacher trainers, etc...) Teachers have to continue being vocational about their job and be obliged in some way to continue their learning process in order to keep up with the times. (lifelong learning) It should be an obligation to keep up with new technologies and ways of teaching.
- The physical space for teachers in training should include a 21st Century set-up (furniture, layout, connectivity, etc.)

3. International-local teacher Education networking

Chairs: Mireia Montané, Thérèse Laferrière, Eva Liesa, Mar Camacho, Roser Boix, Paula Mayoral, Javier Valle

This summary has been written by the chairs Mireia Montané, Mar Camacho, Eva Liesa and Paula Mayoral

1. Main ideas summary

We discussed the following main topics related to international-local knowledge building networks for professional teacher development:

- The role of networks to promote professional development of teachers and collaborative practices.
 - The conditions that these networks need to meet to become sustainable in time and scalable in different contexts include teacher readiness, institutional support and good technological infrastructures.
 - The need to include research and evaluation to examine the impact of innovation.
- The challenges to be addressed include the potential of international networks :
 - International competencies for professional teacher development
 - Impact on students learning
 - The role of technology (online/onsite)
 - Legal frameworks in the different political levels
 - Need to explore how can international knowledge building networks push forward a transnational teachers' professional identity.
 - International knowledge-building networks contribute to reduce the tension between the local and the global.

2. Main contributions

The different communications that were presented provided interesting insights which complemented each other. In this sense, we had the vision of different stakeholders: (i) Educational institution – Catalan Ministry of Education (ii) Pre-service teacher Education – Faculties of Education (Blanquerna – Ramon LLull, Universitat Rovira i Virgili, Universitat de Barcelona (Catalonia), University of Illinois at Urbana-Champaign (USA), the University of Winchester (UK), and in-service teachers (Santapau and Virolai Schools - Catalonia) who gave their opinion on the role on networks out of their experiences. The common agreement was that international collaboration networks can contribute to enhance both the quality of education and teacher's professional development.

The different contributions included the vision of successful schools that recognize the teacher's labour reinforcing the quality of their training and professional commitment, the need of common projects inside schools that gather teachers' together and the need to have qualified teachers devoted to their professional development.

Marlene Scardamalia and Thérèse Laferrière shared the necessity of providing continuous support to maintain the networks and signaled the relevance that big data and privacy issues will have in the future of collaborative networks and the sharing of experiences internationally.

3. Main conclusions and future streamlines:

- International knowledge-building networks need a participatory framework to shelter teachers and schools.
- Financing is relevant to provide quality to the task to be carried out.
- Importance to shape the next-future teacher's identity. Networks can become of importance in the shift from a local to a more transnational identity.
- The role of International knowledge-building networks is essential in providing sustainable collaboration, although there's a need to provide support for quality long-distance professional development.
- Creation of multidisciplinary innovation hubs of open and collaborative teams of teachers. Need to include pre-service teachers in these hubs.

4. Teacher education Curriculum and School Curriculum

Chairs: Ann Shelly, Sally Wan, Antoni Tort, Anna Pagès, Àngel Domingo

In sub-theme 4 parallel sessions we have developed a discussion around the following questions:

1. How should teachers be prepared? And where?
2. How well are they prepared for:
Cultural difference
21st century
mentoring
3. What would be the balance between deep pedagogical background, cultural knowledge and content knowledge?
4. Who are the candidates for teaching?
5. What would be the relationship between schools and university? Should it be focused on curriculum or technical expertise?
6. How could we define professional growth? From induction or through mentoring?
7. How do we create schools that reflect the world we are in?

The contributions in our group have pointed out the following key issues:

1. The importance of a progressively delocalised school system with strong power in local districts
2. The importance of developing a process and experiential learning
3. The possibility of a payed fifth semester or first year teaching experience with support of a mentor
4. The relevance of mistakes as a growth mindset for pre-service teachers
5. The combination of mentoring and coaching within a set of real relationships.
6. Getting to know more about students than the name
7. Making a difference between using and specially not using technology
8. The relevance of a strong content knowledge within a variety of teaching and assessment strategies
9. The importance of making people think so they could be critic and able to make their own decisions in educational and school current settings.
10. The relevance of focusin on differential instruction, viewing teaching as a multidimensional act and with a collaborative attitude.
11. To emphasize the idea of a teacher as a reflective practitioner.
12. To introduce a sense of narrative and story telling dimension in language teaching, making language a living experience to share with others in a community setting.

**5. and 6. School / University / Educational Administrations
Partnerships for Creative Initiatives in Teacher Education – A
distributed leadership for school innovation management**

Chairs for Group 5: Maxine Cooper, Frances van Tassel, Kay Livingston, Neus Lorenza, Anna M. de Monserrat

Chairs for Group 6: Esmahan Agoglu, Elijah Omwenga, Xavier Chavarria, M. Rosa Buxarrais

All the presentations had common ideas and values:

1. They included research & data
2. Added common values and goals
3. They wanted to overcome inertia
4. They were based on community Building as taught as knowledge Building
5. Based on diversity and pluralism
6. Created networks and were developing team strategies
7. They empowered teachers with leadership and influence, and self-management
8. They show collaboration of university and schools, creating a sense of university and schools, creating a sense of becoming a community of interest, not only belonging to a project group
9. They were consciousness creation
10. They want to be inclusive
11. These programmes and networks are ready to educate global citizens
12. They focus to engagement success, inclusions, and ethical issues
13. They require emotional intelligence
14. They need a common understanding of the common challenges
15. All the networks need to go further, not only doing research, but being pro-active in society, working on real projects.

All the presentations also shared several common challenges:

1. They demand major collaboration and commitment, and this is TIME COSUMMING
2. There are a lot of pressures to combine internal and external demands, and it calls for RESILIENCE and SUSTAINABILITY.
3. Changing paradigms is hard, and it is necessary to put more RESOURCES for MORE RESEARCH and PRACTICES to collect EVIDENCE OF SUCCESS.

There is a strong lack of understanding from policymakers, so it is necessary to county on good policies.

7. Monitoring and evaluating innovation in Teacher Education

Chairs: Joan Mateo, Antoni Sans, Joaquín Gairín, Carme Amorós, Francesc Martínez, Coral Regi

This summary has been written taking into account the points of view of all the chairs and participants.

Teacher professional development (*Teacher Education*) is enriched from theories and innovative practices that are well planned, carried out and evaluated, and besides that have been based on the analysis of results obtained with the application of evaluation strategies. These strategies are framed in educational research that should promote the transformation of reality evaluated, which can only be achieved if all of the agents involved in the innovation participate.

The current educational context –whether speaking about schools, school networks, research groups or even educational administration– is characterized by numerous efforts in working with teachers to improve the academic success of students, but before spreading any innovation their suitability should be evaluated, so that we get quality information that enables us to take the appropriate decisions. This evaluation process requires, therefore, a number of steps to ensure the necessary rigor. Also, it should be said that in this process, when innovations are not supposed to be just isolated phenomena or disconnected from the context, it is important to have the support of institutional structures at various levels (International, national, regional and local). The leading evaluations of innovations related to teacher professional development deal with not only the results but also the design and the process, as well as what works and what does not work. But first, we must distinguish between "changes" and "improvements", within what is called innovation.

Beyond the innovations promoted by the educational system, it is necessary to consider, also, the innovations driven by the schools in connection with its educational project. The evaluation serves in this context to diagnose weaknesses, feedback processes and assess the results and impact of the changes, noting the close and permanent relationship between evaluation, innovation, and improvement.

The basis of innovations should not fall on mere methodological or technological changes, which often respond to transient trends. It is necessary to analyze to what extent the innovations represent changes in the visions and objectives of the educational system considered as a whole. This, then, should also be considered in the evaluation of innovations.

With regard specifically to teacher professional development, it is interesting to take advantage of the opportunity offered by this International Conference to review various models of teacher training and evaluation that are being applied, both from the point of

view of design, of the process, as well as from its effects –sometimes intended, but also at other times unintended.

In short, the concept of evaluation is considered to be the tool that gives us information (*feedback*) to improve. This tool should allow to evaluate the progress made by teachers in their fields of improvement and to pose new challenges to continue moving forward. The assessment must be present throughout the entire upgrade, training and improvement process for all educational professionals.

Some issues raised:

- Define in each case, what, who, where, how in relation to evaluation and who to report results.
- Adjust the model of evaluation on the educational reality that is going to be evaluated and adjust also the resources to the needs
- See the specific nature and complementarity of different evaluations. The correct analysis of the results should allow making decisions for improvement.
- Think about what evidence we can identify in the innovations to evaluate the following aspects:
 - Establishment of communities of innovation.
 - Flexible spaces, multidimensional, multicultural, multilingual and complex.
 - The impact of innovations.
 - Complex skills (critical thinking, ethical conduct, learning to learn, etc.)
- Think about the future of the evaluation of innovations in the field of teacher education.
- Take advantage of the formative research (and even empowering) as a strategy to promote the evaluation of innovations, both in experiences of Sciences and Humanities.
- Empower, not train, teachers in the field of evaluation of innovations, in the context of collaborative governance.
- To understand that evaluation does not imply a lack of confidence between the different stakeholders.
- Empower citizens and making them aware of the importance of the evaluation.
- Collaborate in the development of evaluative thinking, to learn how to be good innovative.
- Designing evaluations that generate informed and emotional responses, and also generate more questions.
- Help to get, process, produce and disseminate the information from the evaluation.
- Give more importance to evaluate the innovation on the processes, the objectives, the indicators or the creation and maintenance of communities, and not so much about the resources.
- Bear in mind the coherence between all those aspects involved in the evaluation of innovations.

- Evaluate not only from a critical point of view but also with the intention to develop, improve and create. Just remember that in some respects we are still like 50 years ago.

Some international organizations (in Europe and worldwide) offer many resources to learn, review, share and generate.

8. and 9. Change for Innovation in Teacher Education / Initial and Ongoing Teacher Education for Innovation

Chairs for Group 8: Joana Salazar, James Alouf, Patrick Lam, Joan Manuel del Pozo, Miquel Martinez, Joan Rue, Antoni Badia, Chrstine Hamel

Chairs for Group 9: Asa Malberg, Diego Castro Ceacero

The main focus of this sub-theme was:

- ✓ Classroom practices or education programs and policies that foster student innovation and knowledge creation, thereby making a difference in the teaching and learning process.
- ✓ Local, regional, and global knowledge networks that foster innovation in teacher education and address the needs of the knowledge society are welcome to submit.

Three ideas arose as a main conclusion after the presentations. Innovation and change does not consist in making different things or radical new ones, but updating and fostering some much consolidated ideas on education:

- Teaching is mainly dealing with values. Those inspire the contents and in its process of learning some key skills will develop through the learner's focused activity. Values inspire the learning projects and suggest the best activities for its development. Shared values are the basis for an effective leadership.
- Teaching is about exchanging with others. This brings to the front page the need for developing skills as empathy, mutual understanding and the ability of working in given contexts as well as with respect to the human diversity of students. This highlights the need for working in different kind of social exchanges with respect to learning.
- Teaching is about fostering thinking. Thus, it highlights as well the need for solving problems and developing thinking strategies through the proposed activities.

After a group discussion (James Alouf, Antoni Badia, Patrick Lam, Joan Rué), the following ideas are a synthesis of what was exchanged among the participants

The group session had discussed around two main questions: how to innovate in teacher training? What kind obstacles should be faced in such purpose?

In order to respond both questions one issue arose as a central, the need for a multilateral diagnosis approach. This is, focusing in individuals, in groups of teachers, in centers or/and networks and in governmental rules or governmental management. For every each of them the question could be how their supposed innovative initiatives and practices either add to each other layer or, instead, each one stands as a mutual obstacle for innovating.

As for innovating ideas, some were explored. The participants were agreeing in approaching theory and professional practice training, being involved and exchanging with professional networking or developing school centered innovative communities. Last but not least, the main issue to be considered in innovation is related to how

students learn, instead focusing on teaching itself. And, consequently, trying to develop innovative responses to it has not to be made from an individual approach but from a team approach. If learning to teach is a personal responsibility, the students learning is about a team shared teaching action.

However, some institutional obstacles have to be tackled under the local basis, in order them be rooted into the training system.

Some analyzed obstacles were object of common concern, and considered as a systemic concern. The group analysis underlined many of its ideological and cultural bases instead standing on the ones concerning the current research. Among the main obstacles, were quoted the following: those of the government pressure for testing and making rankings; the pressure for instructing and delivering pass marks or the lack or rewards for innovation to the teachers. The individualized approach in training teachers was quoted as well. Most of these concerns come after governments implement top-down “developing” policies.

Lastly, some important professional skill gaps were highlighted: the lack of training in working with others, the lack of commitment with teaching, the lack of professional responsibility. A common agreement was that those skills are best developed when practitioners learn to work cooperatively, under the leadership of a common understanding of learning.

Lastly, there is a synthesis of the presented ideas at the parallel session

1 School-university partnership

1-Developping professionalism through triadic partnership

Learning in primary education through triadic partnerships (Carrillo, Espinet, Valdés)¹. The teacher preparation model was framed under the construct of Learning Communities inspired by the work of Wenger (1998) on communities of practice. The strengths of the program had been the composition of the learning community including school teachers, student teachers, university professors and teacher educators from both science and language education disciplines besides the explicit theoretical support provided by university and teacher educators from both science and foreign language education

We² are seeking to develop a school-university partnership in England that transforms ITE through new ways of partnership working that are characterize Findings suggest that the participants recognised the unique contribution made by both school and university-based teacher educators and of the value of working collaboratively in teacher education. We concur with the ethos of Henneman, Lee and Cohens (1995) understanding of collaboration: Collaboration is a complex, sophisticated process. It

¹ Núria Carrillo Monsó, Mariona Espinet, Laura Valdés, 2016. Promoting the integration of Inquiry based science and English learning in primary education through triadic partnerships. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

² Elizabeth White, Claire Dickerson, 2016. Supporting the re-balancing of initial teacher education within school-university partnerships. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23

requires competence, confidence and commitment on the part of all parties involved. Respect and trust, both for oneself and others, is key to collaboration. As such, patience, nurturance and time are required to build a relationship to the point where collaboration can occur (p.108). d by a culture of inquiry, reflection, and effective collaboration among all stakeholders.

2 Curriculum design

The design of the program (Gravett, Petersen, Ramsaroop),³ was guided by a central organising principle of child study, or put differently, a “pedagogical stance rooted in knowledge of how children learn and develop” (Feiman-Nemser 2001:1018). This paper reports on the combined findings of two qualitative research studies on participants’ experiences of the teacher education program designed to integrate the university coursework curriculum with student-teachers’ involvement in the teaching school. The paper also reports on the different iterations of the developing teaching school “model” since its inception. Data comprised the views of Faculty leadership University and teaching school staff and student-teachers as well as program documents. The method used for data-analysis combined approaches suggested by Charmaz (2003) and Maykut & Morehouse (1994). A main finding is that integrating the teaching school in the teacher education program enabled significant student teacher learning for the teaching profession.

The program designers and university staff under-estimated the complexity of bringing together the world of the university and the world of the school. Consequently, there were missed opportunities for using the teaching school experience optimally to integrate knowledge for teaching with knowledge of teaching.

3- Understanding local culture

The study (Ates, Berg, Nabors)⁴ explored the experiences of 3 American pre-service teachers and analyzed how they perceived the local context the ISL project before and after the program. Through thematic analysis, the results revealed that through various encounters and interaction with the local community, school, teachers and students they have learned more about the culture and language more than any textbook or teacher education course could teach.

4- Specific content proposal

In order to raise students’ awareness and increase their understanding in this subject area, in accordance with the educational philosophy of situated learning, an international collaboration program (Hak Chung, Benlliure, Wai Yan WAN)⁵ was initiated and commenced in October 2015, involving 17 Hong Kong students and 15 Barcelona students in junior secondary levels. The program included various stages,

³ Sarah Gravett, Nadine Petersen, Sarita Ramsaroop, 2016. Integrating knowledge for teaching and knowledge of teaching in a teacher education program involving a “teaching school”. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23

⁴ Burcu Ates, Helen Berg, Diana Nabors. 2016. Teaching Beyond Borders: International Service-Learning in Teacher Education. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23

⁵Patrick Hak Chung, Rafael BENLLIURE, Sally Wai Yan WAN, 2016. International knowledge building development: A conceptual and pedagogical design of intangible cultural heritage (ICH) project through international collaboration. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23

namely discovery of both tangible and intangible cultural heritage and conservation in the school neighborhood, exchange of inquiry results through video conference, and collaborative efforts in writing proposals of heritage conservation through international knowledge building.

5- Specific learning skill proposal: reflective researchers

(Herrera, Izquierdo)⁶ school science teaching (researching and modelling) and the teacher as a researcher and a reflective practitioner ; the dilemmas that this situation creates in prospective teachers regarding their role as a teacher to address a different lesson to the traditional one. Generating a "research question" is to make pupils think that when we are involved in a research endeavor, it is possible to visualize a response beforehand and thus propose a strategy to answer the question and justify the response on scientific.

Results show that student teachers have difficulties in understanding how to organize theoretical and practical knowledge to solving problems by using the V Diagram, which has implications for implementing changes in classroom teaching and the planning of innovative educational proposals for developing scientific thinking skills.

2 Initial training

1 Networking

Pre-service teachers perform better (Civís et al)⁷ if their social networks facilitate their access to resources, concluding that one's relationships with others are a source of material, information and emotional aid. A crucial question for our universities and schools is what type of learning climate is needed to empower the access of pre-service teachers to learning in their professional path. the incidence of a collaborative innovation climate in pre-service teacher performance, focusing on their social capital as a mediating variable of their success.

Findings show the relationship between student's social networks and student's performance, indicating that when students are more closely linked to each other have more success -self efficacy and academic achievement-. Also, results show that a collaborative innovation climate (understood as learning climate with collective and individual innovation and collective and individual trust) is positively related to academic success (final grade) and professional competences (Practicum Grade and self-efficacy) through student's social capital. Implications of this study may suggest changes in teacher education programs addressed to increase social capital of preservice teachers by promoting a collaborative innovation climate based on trust between students, and between students and teachers, so as an orientation to innovation from a practical standpoint.

2 In-service Teaching beliefs compared

⁶ Judith Herrera San Martín, Mercè Izquierdo Aymerich (2016).Obstacles and Opportunities at Learning How to Inquire and Model with the Gowin V Diagram in Science Teachers in Initial Training. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

⁷ Mireia Civís, Jordi Díaz, Susana López, Jordi Longás, Jordi Riera, 2016. THE ROLE OF SOCIAL CAPITAL IN PRESERVICE TEACHER PERFORMANCE. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

- ✓ perceived readiness of the use of differentiated instruction (Way Yan, Tulbure)⁸.
- ✓ teaching efficacy regarding differentiated instruction (Way Yan, Salazar)⁹
- ✓ key professional recognized aspects in teachers' conceptions and opinions about education and their profession(Verástegui)¹⁰. Aspects that empower teacher profession are the relationship between teacher and student, belonging to a visible and united professional group, innovation and autonomy, reflective practice and professional evaluation. On the other hand, teachers report that debilitating aspects are professional isolation, burn out and overburden, lack of social prestige and acknowledgement, missing professional evaluation and absence of differentiation between good and bad professional praxis.

Negotiation between ideals and reality may weaken their profession. Its resolution, and used actions and mechanics determinate if teacher profession loses strength or gets stronger. This resolution is more effective when teachers meet, professional networks are created, teachers have a representative social participation and there is a reflective atmosphere about the own practice. When teachers have the opportunity to express their own view, their experience and knowledge there is a better understanding about the education system complexity. Mainly, it is necessary to incorporate communal deliberation to the most important professional force in the education system: the teachers.

Professional learning communities

School project development (Solé Clavero et al) ¹¹

The school faced precise targets for each of the three general objectives of the educational project; the academic improvement, social cohesion and the development of IT skills in everyday learning process. Special care was taken in providing the areas with a wider room for improvement.

The teacher training schedule was devoted to the use of new technologies, conflict resolution and mediation, and group dynamics. The participation in innovation projects provided the school with IT hardware and software, and the parent-teacher association funded the school with human resources such as an IT assistant, or a social integration assistant. A leading management board has led to proactive team work, and the technical knowledge of the vocational school teachers has allowed to forward knowledge to the business environment. The final processing of all the resources was devoted to solve the problems that had been previously detected, resulting in a strong holistic organization, which aims at the individualization of learning.

⁸ Sally Wai-Yan Wan, Cristina Tulbure, 2016. Differentiated instruction: Comparing Hong Kong and Romanian prospective teachers' teaching beliefs and perceived readiness. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

⁹ Sally Wai-Yan WAN, 2016. READINESS OF PEDAGOGICAL PRACTICE OF DIFFERENTIATED INSTRUCTION: FROM HONG KONG AND SPANISH PROSPECTIVE TEACHERS' PERSPECTIVE. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

¹⁰ MACARENA VERASTEGUI MARTINEZ, 2016. LOS MAESTROS CUENTAN. INFORME DE LOS ENCUENTROS ENTRE MAESTROS 2015. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

¹¹ Maria Teresa Solé Clavero, José G Lluís Queralt. 2016. *One Institution, three Curricula, 1600 learning Approaches*. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

Soft-skills development

Social learning (Boixaderas)¹² promotes different social skills capacity to communicate, leadership, empathy, negotiation skills, conviction... This activity has an impact on the community, it has a shared outcome and it results in an acknowledgement of the students. It is an interdisciplinary activity that integrates different content: management, organization, economy, legislation, social and natural environment, learning and service, always with a great variety of procedures and values.

The research project of Masgrau, Forasté, Kunde¹³ *Teacher 2020* involves nine institutions of six European countries with all educational levels represented– promotes entrepreneurial education as an active and participative methodology, in which students have a high degree of empowerment in their learning processes, they work out and learn from real community challenges, so that this way we may be able to build a new more sustainable and equitable society. Authors like Dewey, Freire, Piaget and Papert, or relatively recent methodologies in our educational system, such as service-learning, cooperative work and project work, are fundamental to define it properly and it is important to make these hybridizations emerge explicitly.

Ecology of teaching (in gifted student)

(Hak Chung)¹⁴ Niche, includes school background, principal's roles, school strategies as well as government and community support. Architecture for interaction, an indispensable element of niche, will also be analyzed. It is the interaction amongst the key players of GE in school and interaction between them and the contextual conditions. Competition (the choice of GE as developmental priority) and emergence (the initiation of GE practice) , important features in ecology, will also be examined

Teacher' perceptions leadership

This study¹⁵ (Wai-Yan WAN; Wai-Po WAN) aims at filling in the research gap by exploring prospective teachers' perceptions of teacher leadership and professional learning communities.

¹² Joan Ramon Boixaderas. 2016. Encouraging a cooperative organization of students: creativity, entrepreneurship and values. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

¹³ Mariona Masgrau Juanola, Alex Forasté, Karolin Kunde, 2016. DISCUSSING THE *ENTREPRENEURIAL EDUCATION*: ROOTS AND BRANCHES OF THIS CONCEPT. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

¹⁴ Patrick Hak Chung LAM, 2016. Leadership for change: An empirical study of ecological model for school-based gifted education development. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

¹⁵ Sally Wai-Yan WAN, Eunice Wai-Po WAN. 2016. Discovering Hong Kong prospective teachers' perceptions of teacher leadership and professional learning communities. Paper presented at WFATE Biennial Meeting, Barcelona, Spain, April 21– 23.

10. Health, Sport, Physical Education and Arts Education (including circus and theater school education, in relation with music, dance and visual arts)

Chairs: Paul Paese, Ian Scott Owens, Marc Franco, Luis Marques Moliás

This summary has been written taking into account the points of view of all the chairs and participants.

The members of the group want to put the focus on the globality and unity of the human being. People are not compartmentalized in areas. People experience the reality and act on it in unity and in a global fashion. This is even more relevant and important during childhood and adolescence when, particularly, in the early years, movement, arts, expression and experimentation are the main, if not the only, way to engage the children.

Since learning is global, we have to avoid thinking of only a formal instructional school, and we have to work towards global strategies and perspectives at school, with cognitive but also artistic, expressive and body focus, all together and related. *'Educating the mind through the body and the body through the mind.'* We have to connect the different areas to promote open-minded children, people and citizens. And for this is important to achieve disciplinary knowledge. But it is, at least, as important to be happy, to develop social skills, to become autonomous and to grow up with a well-developed inner dimension.

So schools have to change... and this change has to begin in the teacher training Faculties. For this, it is necessary, not only to establish multidisciplinary teacher's teams, but to re-think teacher training programs, switching them into the proposal and design of global formation projects, with the coordinated contribution of different scientific and epistemological areas.

According to Howard Gardner, *"We agree with the multiple intelligences and we're very critical with the actual school model award, which empathize only the logic-mathematical and linguistic areas, forgotten some importance fields: Physical, musical, intrapersonal, interpersonal..."* In this session we have seen that teachers really need to find a new prospective in order to motivate children. Circus and theatre are excellent models of alternative ways of achieving this. Schools need to review the Physical Education holistic paradigm to broaden the offer for children in all ages and educative stages. Also in early years, primary, secondary, pre university, university and during all our life.

11. Supporting STEM Education Through Teacher Preparation and Professional Development

Chairs: Araceli Ortiz, Leslie Huling, Virginia Resta, Claudi Alsina, Marianne Cutler, Anna Maria Geli, Xavier Juan

This sub-theme provides opportunities to share strategies and resources to prepare and equip teachers to satisfy a growing need for STEM (science, technology, engineering, mathematics) education through improved teaching and learning in the STEM disciplines for students from kindergarten to graduate-level college studies (K-20), through wide-scale sharing and implementation of effective approaches. Education in the 21st century demands new goals in interdisciplinary approaches for teaching, integrating the different perspectives of sciences, technology and mathematics. This need comes from the demand of providing students, at all levels, the possibility to integrate the different skills from STEM disciplines, and to promote vocations towards STEM careers since our societies have an increasing demand in these areas. To facilitate more cooperation between teachers from different STEM disciplines is a must. But this requires training teachers as well as providing new resources to facilitate the development of integrated topics. Our global world and Internet's wide range of facilities provide today extraordinary possibilities for international cooperation on this. For example, In the case of mathematics it will be extremely important to promote together with the scientific and technological disciplines *the problem solving approach*, with emphasis on *mathematical modeling and applications* facilitating the understanding of nature and real life issues. The promotion of quantitative reasoning must be also combined with symbolic manipulation skills and clever uses of technological devices and programs. Among the approaches highlighted in this strand will be the NASA model for professional development of teachers using NASA materials and resources, new discoveries in Cosmochemistry, STEM focused teacher training programs in Barcelona and Serbia, and research focused STEM teaching resources developed in the UK.

CHALLENGES

- STEM should not be taught at a high level. Problem solving approach is more appropriate.
- Too many times, science is not taught in a scientific way (too memoristic)
- Teachers should promote scientific literacy.
- Teachers should provide students opportunities to discover, experiment, discuss...
- The colleagues from Texas State University will explain the "Next Generation Science Standards" that focus on processes and skills rather than in concepts.
- There's a demographic gap which is common to all our countries: a gender gap by which very few girls study physics, computer science or engineering (and very few boys study medicine).
- There's also a gap in teacher quality and quantity that can be seen in good teachers leaving schools and moving toward industry, very good specialists in

different subjects that haven't been trained to be teachers, professionals that have lost their jobs and that become teachers without having been trained to become teachers.

- Digital citizenship gap. A large number of students make a non-ethical use of technology (cyberbullying)
- Students interest gap: declining interest in STEM careers.
- STEM curriculum gap: STEM subjects are too often taught in isolation from one another.
- A question to think: "Do we want some STEM for all or all STEM for some?"
- Milan Stojkovic will explain the Serbian science curriculum as well as the project CosmoChemistry.
- The colleagues from Texas State University will explain a NASA project as an example of collaboration among different interests.

THE FUTURE

- We want STEM for all (and even more STEM for interested pupils)
- Teachers should be encouraged to use global contexts and Internet as a way to promote global citizenship in order to increase the collaboration among teachers and schools to develop projects.
- Teachers also should teach how the science and the scientists work.

CONCLUSIONS:

- STEM content may best be taught using an integrative approach that focuses on process skill development and the use of the problem-solving approach or project-based learning.
- Students can benefit when STEM content is taught as practitioners work, for example, scientists using the scientific method process, engineers using the design process, and mathematicians using modeling and proof.
- Teachers can promote scientific and technological literacy in order to encourage students to become informed citizens.
- Teachers of STEM will benefit when guided by instructional strategies that balance content and process, for example, the NGSS in the United States that describe a 3-part model (content, cross-cutting concepts and process skills).
- Additional work is required regarding assessment methods that more closely aligned with the inquiry approach that is being recommended.
- STEM teachers should be recognized as professionals engaged in complex work. Additional support is necessary in order to increase the confidence in dealing with new content, materials and resources.
- It's important to create networks within and beyond the school.
- We need to promote collaborative work among STEM secondary school teachers
- Increasing and strengthening the relationship between secondary STEM teachers and R&I institutions

- Getting an effective dissemination of classroom materials created by teachers. Encouraging peer review publishing.
- Enhancing the profile and support available from higher education institutions (universities)
- Promoting STEM Teachers meetings

12. Strategies for Overcoming Inertia in Teacher Education

Chairs: Elsa C. Price, Elizabeth Oldham, Carme Panchón, Jesús Manso, Valenti Feixas, Jordi Serarols, Laura Calzado

The changes that we are living with today cause education to be redefined, both in its purpose and in the learning process organization. In this context, managing change becomes a basic need of educational organizations, and inertia, the tendency to do nothing or to remain unchanged, arises as a difficulty to overcome in educational organizations.

The causes of inertia may be several: fear of change, feelings of inadequacy in using technology, and resistance to leaving one's "comfort zone" in areas of teaching and learning.

From the perspective of educational administrations, too much emphasis on ideology in educational policies creates a state of inertia in the actions of administrative bodies, instead of promoting innovation. There is also a need for more flexibility in curricula. The standardization of contents is also a source of inertia that must be overcome. If we provide a more individualized education, we enhance effectiveness and avoid inertia.

From the perspective of universities, to avoid inertia a closer relationship with schools is needed. Professors and lecturers need to have had experience in schools prior to working in universities. Moreover, school teachers should contribute to and participate in teacher education programmes. Some bureaucratic processes make it difficult for teachers to reflect on practice and educational research in schools. A better definition of teacher professional competences can help in the design of teacher development programmes.

According to the Oxford Dictionary {www.oxforddictionaries.com} the term inertia means, "a tendency to do nothing or to remain unchanged" and the example of its use is "the bureaucratic inertia of government." Sub-theme twelve provides opportunities to share strategies and resources to reduce the inertia and address the causes of the inertia which may be present in some participants of Teacher Education. Participants could include administrators, professors, teachers, students, and others and the inertia could be caused by fear of change, feelings of inadequacy in using technology, and resistance to leaving one's "comfort zone" in areas of teaching and learning.

13. Disability Studies, Inclusion and Social Justice in Teacher Ed

Chairs: Jenene Burke, Chandrika Devarakonda, Cyorgy Meszaros, Monique Leygraf, Josep M. Sanahuja, Ignasi Puigdemívol

The next synthesis was prepared by:

Jenene Burke, Chandrika Devarakonda, Josep M. Sanahuja, György Mészáros, as Chairs, and Joana Maria Mas Mestre, Natalia Puyuelo Castillo, Maria Carbo Carrete, Brian Munoz Berbey, Nuria Roig Borràs, as Participants

Inclusion and Social Justice in Teacher Education in Global Contexts

Inclusion is a response to diversity within a social justice and human rights framework that seeks to facilitate participation and success in education for all students. An array of critical traditions and methodologies that interrogate educational issues from a political and social perspective are explored. The concept of social justice is interpreted in the framework of unequal power relations in education. In this sub-theme, attention is directed towards building the capacities of teachers, including teacher educators, to respond to students' diverse learning needs (including highly able students, those with impairments, and those who belong to different groups based on their gender, class, ethnicity and sexual orientation) recognise and act on underachievement, and enhance learning for all students.

We examined our sub-theme through the perspectives of the conference participants and the ensuing rich discussion from the presentations. The concept of inclusive education, in all social contexts, is considered central to this sub-theme. Consequently the sub-theme has been renamed and reframed to emphasise inclusion within teacher education specifically, and in society generally.

The following five presentations were delivered and discussed in depth:

Presentation 1: 'Invisible' multiple dimensions of a child - overlooked or ignored. Chandrika Devarakonda

Presentation 2: Teachers with impairments: including and supporting a 'vastly marginalised population'. Jenene Burke

Presentation 3: Shared teaching: looking for inclusive practices in the classroom. Patricia Olmos Ruida, Òscar Mas Torelló, Josep M. Sanahuja Galvaldà

Presentation 4: Diversity and inclusion: Concepts to learn and unlearn as a teacher. Chandrika Devarakonda

Presentation 5: Learning with a diagnosis of dyslexia: an insider account of secondary education. Jenene Burke and Alanna Bushby

Initially we considered three important questions:

- As teachers, how do we ensure all of our students are learning?
- How do we manage our schools and classrooms to ensure all students are included in learning?
- How do we ensure that initial teacher education embraces an *authentic* inclusive education perspective?

Moreover, we considered the conference theme of innovation and how we might seek innovation within our sub-theme. In an inclusive environment every child is unique, every child is important, and every child is considered to be capable of learning. In an

inclusive learning environment attention is directed to towards effective learning for all students. Inclusion is related to all people (children, teachers, families, policy makers, teacher educators), of all ages, in all contexts. In other words, inclusion concerns everyone. Human diversity calls for an educational response to ensure that social justice and equity, with respect to learning, are achieved. We consider that within an inclusive environment everyone is special, or put another way, everyone belongs.

Challenges

As acknowledged in the academic literature, the concept of inclusion is sometimes misunderstood and therefore is often inadequately implemented in learning environments and in broader society. This is problematic because it means that while educators might consider their practices to be inclusive, they often fall short of authentic inclusive practice. Furthermore, competing pedagogical structures and philosophies can relegate inclusion to a low priority. Our view is that all students have equitable access to social justice and opportunities to maximise their learning. If inclusion is afforded the highest priority in all learning and social environments, innovation is inevitable.

We developed a catch phrase that exemplifies our innovation within this sub theme, that 'learning, unlearning, and relearning about learning and teaching' is essential to ensure that educational inclusion is achieved. In teacher education this means that whole-program practice that is underpinned by inclusion will ensure that student teachers learn about how to teach for inclusion and that teacher educators teach for inclusion within every class. Currently, we observe within the international teacher education contexts that our sub-theme participants are familiar with, that inclusion tends to be taught only within one course or module, in isolation from all other aspects of a teacher education program. Student teachers learn about inclusion in isolation from the bulk of their learning programs. Not only does this disjointed practice make it difficult for student teachers to connect the theory of inclusion to their teacher practice, it means that teaching practices in teacher education programs do not adopt inclusive practices to model effective inclusive teaching practice to the student teachers.

Within a global context, a social ecological systems model provides a useful theoretical context to understand inclusion within this sub-theme. This model places students in a central position within the broader environments of family, school, social environments and broader society specific to local and global contexts. Twenty-first century tools such as technologies and pedagogies can be used to facilitate this process

From the group's perspective, Innovation is perceived as a big idea where inclusion is embedded as spiral curriculum in the program content on the teacher Education courses across the global contexts. This will sensitize students to diversity, diverse societies and be able to respond to the needs of students to the best of their capacities.

14. Innovation in Teacher Training for Early Childhood Education

Chairs: Carme Àngel (UAB), Montserrat Anton (UAB), Silvia Blanch (UAB), Cristina Corcoll (URL), Mequè Edo (UAB), Maria Antònia Pujol (UB), Rosa Ferrer (Rosa Sensat)

A.- Introduction

Specific training for practitioners working with children 0-6 at Early Years Education settings. Nurseries (0-3) and preschools (3-6) is required. This training needs to be obtained in Higher Education. Therefore it is necessary to define the type of education we wish for future practitioners according to society's needs, as well as the framework within which this training will be provided. The role of the University and the practitioners' task needs to be reflected upon.

Teachers and teacher trainers need to be ethically committed towards society, as well as having a critical perspective of the world, so that they can work towards reality change. It is important to reflect upon the University and the teacher's role. Both pre-service and in-service training are crucial. And obviously, research is also important to improve teachers' training. Professional know-how, as well as the knowledge of children and families, needs to be taken into account. It is necessary to bear in mind the following triangle:

- actions with constant experimentation
- thinking based on observation, research and reflection
- decisions that allow deciding policy measures on a daily basis to carry on improving

and that's only possible from a holistic approach.

B. Characteristics

From the basis of a **holistic practice**, the aims should be:

1. To support knowledge of the setting, space distribution, time and materials; knowledge of practitioners' functions but also of management positions, the functioning of parents' associations, school eating time, leisure activities, knowledge areas, vocational training and educational services, among others. In sum, it is essential to facilitate the learning of networking processes;
2. To guarantee knowledge of children's development and learning process;
3. To give students tools to develop teaching and research strategies to facilitate self-evaluation of their own competencies and strategies for lifelong learning;
4. To use a methodology that allows for cooperative work and which is interculturally and plurilinguistically relevant. It should also be scientifically based, promote ethical documentation to provide children, families, practitioners and other professionals with useful information. Finally, it should initiate future practitioners in the processes of self-regulation and self-assessment.
5. To value early childhood culture from an individual and group perspective understanding that socialization develops social rules, roles and expectations.
6. To avoid stereotypes of: gender, birth country, disabilities, social status, etc. that lead to discrimination. All the children, families, teachers, etc. should be treated with equal dignity and respect.

C. Training areas:

An interdisciplinary and transdisciplinary approach will be required. It should include the following aspects:

1. Personal and professional competencies. Social and contextual engagement;
2. Theoretical and practical knowledge to teach any knowledge area as well cross-curricular themes such as health education, intellectual habits education or practical life; any knowledge area should help to develop children's cognitive competencies and logical thinking to interpret the world that surrounds them.
3. Learning to observe and analyze the educational context;
4. Understanding the development and learning processes of children 0-6;
5. Pedagogical practice with children, teaching intervention design and pedagogical assessment;
6. Working with families and other practitioners and professionals, in order to promote cooperation amongst all agents involved in children's education;
7. Pedagogical documentation and research to return findings to the educational context with the aim of improving teaching practice;
8. Characteristics and organization of educational settings for children 0-6: managing democratic spaces, with the participation of children and adults, promoting equality, including diversity, social responsibility towards children and families, among others.

D. Teacher training methodology

The methodology used should be cooperative and thus based on team work.

The pedagogy of participation aims to create learning experiences, both during the internship and at the university, and in order to promote the following aspects:

1. Pedagogy of identities: being, feeling, thinking, in the context of interculturality and plurilingualism;
2. Pedagogy of belonging: belonging to and participating in an inclusive context;
3. Pedagogy of reflection and communication: diverse languages, verbal and non-verbal communication.
4. Pedagogy of narration: documentation based on gesture, orality, writing, digital and of any type that allows for illustrating pedagogical practice;
5. Pedagogy of recreational activity (play): children's interaction among themselves and with diverse spaces and materials. The importance of play and freeflow;
6. Pedagogy of daily life: eating, hygiene habits, sleeping, getting dressed, tidying up, and others.
7. Pedagogy of listening: of children, families and professionals regarding all of their languages.

The projects should have an impact on children, their families, teachers and community.

E. Conditions

-Specific training for practitioners working with children in the 0-3 and 3-6 age groups (nurseries and preschools) is required. This training needs to be obtained in Higher Education. To work with children of these ages, a Higher Education certificate should be required.

-In teacher training studies, a balance should be found between theory and practice. We suggest having a full-year of internship (as well as internship periods during each

course) at the end of the studies. This internship should be mentored by practitioners with tight bonds with university, and it should include joint seminars (school practitioners and university lecturers).

-The in-service teacher training is basic for their professional competences development.

-When the training is shared among all the agents related with schools (teachers, students, families, university and other professionals), the schools can become a learning organization that can face the new challenges.

-The quality of settings that offer internships should be guaranteed, as well as the theoretical and practical training of mentors.

-University lecturers in teacher training studies should have practical knowledge of reality in settings 0-6. Changes should be made in the access requirements for university lecturers. Professional experience should be valued as positive and essential at the different stages of lecturers' accreditation.

-Coordination among all the participants in the teacher training projects with the educational administration, the schools with their heads and teachers, families, students and university is very important.

In conclusion, there is a need for a strong coordination among the actions carried out by schools, the shared thinking between the university and the school, and the Administration's decisions that need to be taken to assure the viability of the project.

F. Five papers have been presented in the conference:

- Personal and prosocial competences during the Early Childhood Education degree. Engagement and Service Learning projects at nursery and preschools. S. Blanch, M. Edo, Gemma Paris.

- Self assessment of professional psychomotor competences in Teacher Training Early Childhood Education, L. Martinez

- Innovation in Teacher Training for Early Childhood Education, S. Moron, Rosa Ferrer.

- Enhancing Opportunities for Toddlers Wellbeing through in-service and pre-service training. C. Corcoll, A. Geis, C. Flores

- Innovation in Teacher training for Early Childhood Education. : M. Prat, Y. Vanegas; M. Edo, K. Boukafri.

G. Challenges

1. Need for a strong coordination among the actions carried out by schools, the shared thinking between the university and the school, and the Administration's decisions that need to be taken to assure the viability of the project.

2. A balance should be found between theory and practice.

3. Changes should be made in the access requirements for university lecturers. Professional experience should be valued as positive and essential at the different stages of lecturers' accreditation.

4. Requirements for practicum teachers should also be more specific and should include a deep knowledge of the early childhood education stage.

5. Developing assessment criteria also for personal and social competencies, which should be as important as other types of competencies.

H. Ideas for the future

1. Develop an international network in early childhood education.
2. Include the panel of early childhood education in future WFATE conferences.

15. Social Sciences Teacher Educaiton for a New Era

Chairs: Joaquim Prats, Joan Santacana, Alain Blomart, Joan Muñoz

To support educators and student' teachers in developing students' knowledges in Social Sciences (history, geography, art history, philosophy, anthropology), thinking skills and promoting civic engagement are the main focus of this sub-theme. To preserve and provide access to Social Sciences, support research, and create interactive programs and exhibits that educate and inspire.

The shared mission is to recreate the landscape of Social Sciences Education by providing research-based programs to prepare leaders who will empower tomorrow's citizens as lifelong learners, to develop and disseminate knowledge and contribute innovative ideas and leadership to solve the problems of a diverse and open society.

Worldwide Libraries and technological systems can provide information and arouse new interests to advance in research and the pursuit of critical thinking in order to be possible understanding the most important social problems, transform lives and change the world. Transversal themes as Civil and Human Rights, Democracy in Action, Diplomacy and Social conflicts, International Trade, Energy and Environment, Landforms and landscapes, Water in the world, Wars and Conflicts, Terrorism, Culture for Peace, etc. could be object of joint international projects.

OBJECTIVES FOR THE FUTURE

In the field of social sciences, we would like to emphasize 3 ideas that should lead our efforts and projects for the next congress:

1. The importance of presenting the **curriculum** of social sciences on schools in a **cross-disciplinary way**, by connecting social sciences with other subjects.
2. The importance of **integrating theory and practice in the training of the teachers** of social sciences: for the future, we would like to analyze some projects that take place in different countries and that intend to teach social sciences in a practical way, adapted to the pupils of our school.
3. The **reflexive, creative and ethical dimension** of teaching social sciences, that is in order words, its capacity of thinking about our society **in a critical and active way**.

Plenary session 1

Innovation in teacher education in a global context. Different approaches

Thomas Pritskow, European Commission's Directorate General for Education and Culture representative

Pascale Mompoin de Gaillard, Council of Europe representative

EFEA, Xavier Chavarria

FEAEC, Coral Regí

Mònica Pereña, Lingua Pax

Eduard Vallory, president of the Center for the UNESCO of Catalonia

Tom Hamilton, Teaching Council for Scotland

Araceli Martínez Ortiz, LBJ Institute of STEM Education and Research

Moderator: Claudi Alsina

Some ideas about Policy

There are shared challenges, and need to co-operate: Addressing joint challenges by sharing experience. One goal is “Shaping career-long perspectives on teaching”, and Improve initial training. From continuum learning to long life learning.

We need “Collaborative governance” involving people, institutions, agents, stakeholders, ...

There is diversity of the teaching profession, and also we need prepare teachers for diversity.

Implement policy measures to incentivize and support quality teaching.

The main aim: Higher quality through sustainable innovation and inclusion.

Language, and languages, are very important in schools and in teacher training. Today, many schools and many teachers must deal with different languages. How can we use all the mother languages that children bring on, combining with common languages? There is a need of “Language policies” for teachers and students, in a context of “Multilingual education”.

Society is changing a lot, and also has changed technology. Moreover, there is new knowledge about how people learn.

So School must change in 4 directions:

1. Teaching 21st century long-life skills.
2. Assess achievements and evaluate school.
3. Teaching practices based on new knowledge bases in learning.
4. Inclusion and Opening.

We must train teachers for the school we want, not the school we have.

If you want to reach students you have to address teachers.

Some ideas about Methodologies of teacher training

Training in a way of capacity building through a community of practice. The best way is “Collaborative knowledge building”.

Non formal methods for the formal sector.

Teacher peer review: Crossing teachers between schools for observing lessons. Main focus on professional achievement
Training through resolving problems is a good way to train teachers and to engage students, especially in Steam careers
Developing competences (skills), combining theory and practice, reflective practice.

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