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Final Report: Impact Evaluation of the New Intermediate Stage Pilot Experience



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Final Report: Impact Evaluation of the New Intermediate Stage Pilot Experience

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Abstract

This report presents the design, introduction, results, and conclusions of the impact evaluation conducted on Jesuïtes Educació's New Intermediate Stage (NEI) Pilot Experience. This evaluation is the first step in measuring the impact of the transformation on the students who have taken part in NEI, toward building an evaluation model that boosts NEI's improvement, and taking steps toward a future decision-making process. This work—led by CETEI (Ituarte Centre for Technology) and with the collaboration of three external research groups—has allowed us to do several things: measure the evaluating tools used in this evaluation of NEI; obtain the first pieces of data on the change in our students' values, competencies and abilities; and to move forward towards setting out a culture of evaluation which consolidates the current trend of educational innovation in our country.

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0. Introduction

This report is the final step of this phase along the path we have just taken, guided by our assumption that any transformation process has to be designed with the intention of measuring the impact of its objective(s) and the extent to which changes are implemented. We do all this with the will to learn while in a constant circle of action and reflection in order to encourage decision-making.

At the same time, we are responding to our commitment to the Jesuïtes Educació educational community to evaluate the transformations introduced in Horizon 2020. This new challenge is broad and complex, and it will ask for other stages of evaluation in the future in order to consolidate this procedure and continue promoting a culture of evaluation within our institution. Therefore, the main goal of this first stage is to build a model for the evaluation of innovations, and additionally to start a process that fits our mission, that is honest with its milestones, and clear with its conclusions.

This impact evaluation report is divided into seven chapters. The first one frames this evaluation within Jesuïtes Educació's Horizon 2020 project by describing the person we are looking for and our educational model. The second chapter gives more details on the pilot experiences that shape this transformation process for the different educational stages. The third focuses on the New Intermediate Stage (NEI) pilot experience and its elements. In the fourth chapter we elaborate on a description of the specifics of our evaluation model, adding special emphasis to the innovations that make it stand out. After that, the fifth chapter focuses on the methodological design of NEI by introducing the process that we have carried out, the research groups that have been involved, and the intervention and comparison groups analysed during the process.

The sixth chapter includes an analysis, the interpretation, and the conclusions for each of the features that define the person we are looking for ba-

sed on the results gathered by the research groups. This report ends with the seventh and final chapter, which includes the final conclusions of this first impact evaluation, some recommendations for its improvement, and forthcoming research questions that have appeared along the way.

The authors of this report, Xavier Aragay, Miquel Amor, and Marc Navarro, would like to emphasize the participation of Joan Blasco, the director of JE's pedagogical model; Guillem Fàbregas, Director of NEI; Josep Menéndez, Deputy Director of JE; and Pau Aragay as an external consultant. We would also like to highlight the valuable contributions of Mireia Torrents, Cristina Rodríguez, and Mariana Martínez, all members of the CETEI team. We would also like to mention Safra Chávez and Laia Porres, interns at CETEI during their Masters Degrees. We would also like to give special mention to the work and collaboration of the educators and students of the participating centres and of the external research groups who have been directly involved by conducting research studies. Finally, we would like to thank Maria Furriols and Mauro Cavaller for taking care of the translation from Catalan, design, and layout of this final report.

1. Horizon 2020

Jesuïtes Educació created the Horizon 2020 project in order to build a new school and to do it together. This new school must develop and incorporate a new pedagogical method—the *Ratio Studiorum* of the 21st century—and it is based on the principles and values of Ignatian pedagogy and in permanent dialogue with the latest advances in pedagogy, psychology and neuroscience to educate well-rounded individuals who can live in the present and future of the 21st century. And this is happening in a new physical space, with a flexible organization style and with the support of a new management model.

Horizon 2020 is the result of strategic planning that has taken seven years, becoming both a cultural change in our organization as well as a call to personal transformation. This process brought us to refocus our lens, taking a new look at education and the individual and—after coming up with a diagnosis—set the grounds to make our educa-

tional change happen. In a participative process undertaken by our entire educational community from which 5,600 ideas were gathered, Horizon 2020 was designed. Now, we move on to introducing the pilot experiences¹.

1.1. General Framework

The Horizon 2020 project created by the educational community of Jesuïtes Educació (JE) was created as a strategic framework to carry out our main goal, which is educating well-rounded individuals for a new society and working together with families so that our students can discover their potential and they become competent, conscious, compassionate, committed, and creative people².

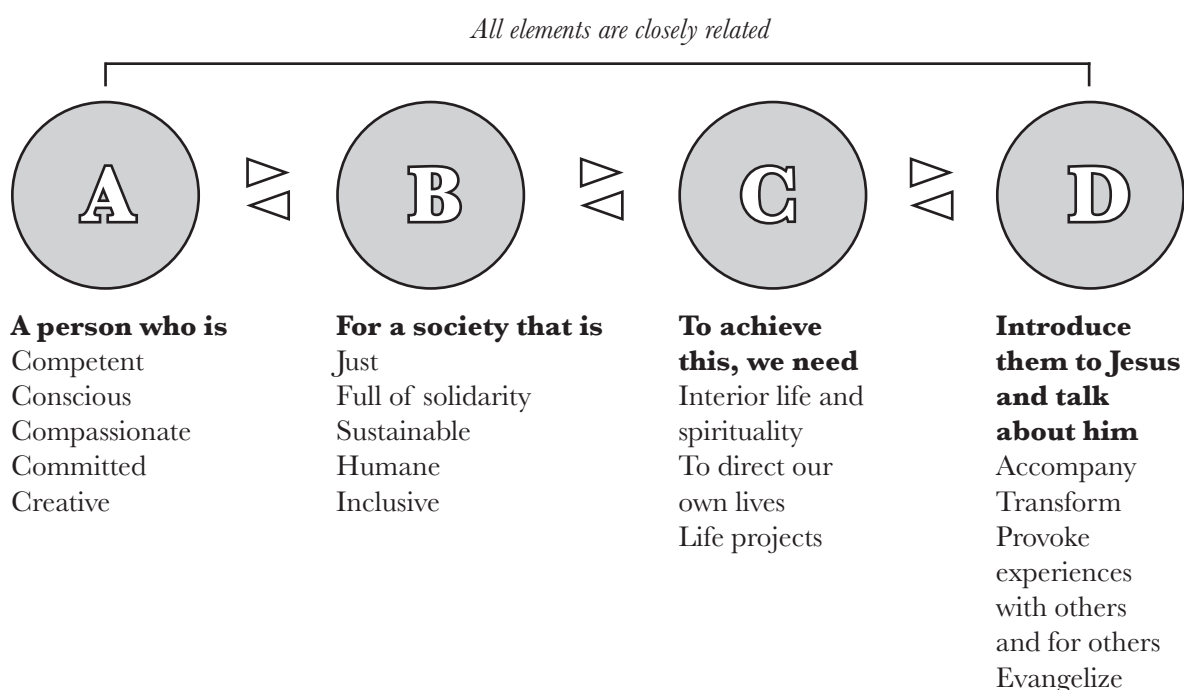
We made this commitment to help building a just, solidarity-based, sustainable, humane, and inclusive society. This objective requires cultivating interiority and spirituality in our students as a solid base upon which they can develop their life projects and are able to successfully guide their lives. Therefore, we believe it is essential to introduce and talk about Jesus as a role model who inspires us to live for and with others. This is the new approach that shapes the person we are looking for, and in this sense we must educate individuals who are all of the following: flexible and open to change; autonomous and able to work both as a team and in a network; globally-oriented and with knowledge in many languages; are multicultural, systemic and digital; able to integrate complex realities and to evolve with them; have a sense of spirituality; and students who are capable of guiding their own lives.

1. For more detailed information on Horizon 2020 and its introduction, please refer to the “Transforming Education” series available at <http://h2020.fje.edu/en/books/>.

2. When designing NEI, a fifth C (the creative person) was added to the traditional four C's that the Society of Jesus refers to (conscious, competent, compassionate, and committed) in their work. According to this approach and after considering all the documents given to the research group, in this first stage of impact evaluation, creativity was important enough to be considered a fifth C. As we write these lines in January of 2017, the preferred option now is to keep the traditional list of the four C's of the Society and consider creativity a characteristic of the type of person that can arise from implementing the rest of the C's.

3. For more on the three submodels of MEJE, please refer to books 05, 06 and 07 in the aforementioned “Transforming Education” series.

Figure 1. The formation of well-rounded individuals in order to create a different society.



The life project sets the groundwork for JE's educational model called MEJE (Figure 1).

1.2. Diagnosis and Systemic Change

As it comes out of Horizon 2020, the need to transform the educational system draws on reflections on the objectives of current educational models and is also a result of analysing our society.

We are in an ever-changing society with many nuclei of knowledge and a great variety of information sources; educational agents are variable and learning and teaching are not functions carried out exclusively by schools. People should be able to continue learning throughout their lives in order to adapt to the ensuing situations of an uncertain and liquid society. Therefore, the objective of education cannot be merely transferring knowledge to the students but must also teach them to learn how to learn, guaranteeing that they can succeed and develop fully and satisfactorily in our current society.

This is the reason why we rethink things and introduce a new teaching and learning process based on the student through a participative, systemic,

and disruptive transformation of schools. In order to achieve this goal, we must link innovation in the field of knowledge and competencies to the latest empiric and scientific evidence that allow us to design a model that suits our current needs.

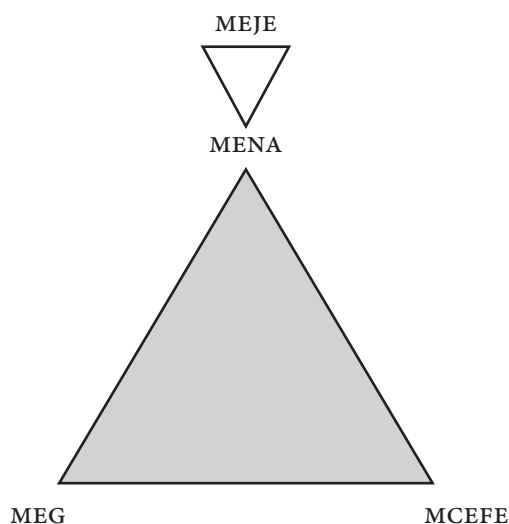
1.3. The JE Educational Model (MEJE)

The new Jesuïtes Educació Educational Model (MEJE) defines the type of education that we want, states the *raison d'être* of our schools, and outlines the deep transformation process that is the goal of H2020. MEJE also includes the large changes that are required to accomplish this—not only those changes related to pedagogy and methodology but also those related to organization and physical space.

The systemic dimension of this transformation is an attempt to respond to the school as a whole, and thus MEJE is divided into three main and interrelated submodels: the Learning and Teaching Model (MENA), the Strategic Management Model (MEG), and the Model for Change to Our Schools' Physical Spaces (MCEFE)³.

Consequently, MEJE is referred to as a model of models (Figure 2).

Figure 2. The new Jesuïtes Educació Educational Model as a model of models.



1.4. Learning and Teaching Model (MEN A)

MEN A has been built through a continuous dialogue between Ignatian tradition and the latest advances in pedagogy, psychology, and neuroscience. This way, we have shaped the pedagogical grounds for systemic change of the learning and teaching process in order to teach successfully both now and throughout the 21st century.

This new pedagogical method is based on aspects of the Ignatian educational tradition and it also reinforces these aspects: the student is at the centre of everything; *cura personalis* must guide the educational relationship of the student; the strengths of each student should be boosted; rigour and profundity should be the objectives of education; there should be extra focus on the fundamental contents; pre-lessons and drilling as techniques that guarantee significant and functional learning; emphasis on teaching those values and skills related to our society; and training our ability to think and our capacity to face new situations and solve problems.

MEN A is structured into four basic triangles, which together build a tetrahedron. The first triangle—the skeleton of the model—gathers students, the teaching team, and resources and physical spaces. Students are provided with individual and collective digital devices to help guide their learning

through the designed activities. Classrooms have been turned into larger and more multi-purpose spaces that can fit twice as many students and where co-operative learning is encouraged under the constant guidance of two or three teachers. These teachers promote individualized attention through personalized, well-rounded, and continuous attention to the students.

The second triangle is formed by the contents of the lessons, methodologies and organization of the teachers, and it represents the main body of the MEN A model. The contents themselves have been considered a priority to enable a global approach, a better integrated, and a more significant understanding of learning through guided discovery and co-operative learning with projects based on complex situations and real problems. These problems involve different school subjects simultaneously and in a cross-disciplinary way.

The third triangle is shaped by considering that learning is the result of shared activity between the students, teachers, and lessons; we are constantly revising the interaction of these three elements and considering the context in which they take place. Moreover, we are building an evaluation system of constant feedback, which is educational, regulatory, and summative. For all these interrelated pieces, it is essential to stimulate and integrate students' knowledge and emotions within their maturative process.

Finally, the last triangle is that which relates to families. Together with the school and the students they form an essential triangle. Therefore, we count on the parents to play an active and important role in their children's processes of teaching and learning. Communication between the families and the school should be smooth and frequent. The extent and kind of participation of families in the curricular and extracurricular activities in each stage should also be clearly established for all those involved.

1.5. Strategic Management Model (MEG)

In order to fully develop MEN A, we must rethink management of the schools. The objective of Horizon 2020 is to rethink this management model. Individuals, processes, and systems all need to be aligned to serve a single purpose: the learning and teaching process. This is in order to escape the traditional pyramid-shaped systems.

The Strategic Management Model (MEG) is the tool we use to achieve better results in managing our available resources. In order to achieve this objective, we've created the position of school manager so as to integrate management in education. This new position isn't just responsible for connecting education and management; it also frees our schools' pedagogical directors from management tasks. Only then will educational managers be able to dedicate themselves fully to the priority of their students' educations.

Moreover, the work done by academic secretaries and the incorporation of new, more efficient electronic management tools improve and simplify our internal organization and the attention we offer to students and families.

1.6. Model for Change of Our Schools'

Physical Spaces (MCEFE)

The Model for Change of Our School's Physical Spaces (MCEFE) defines the spaces that have to encourage learning, relationships, and students' autonomy while also enabling the students and teachers to live positive experiences in these more flexible and welcoming spaces. MENA places the student at the centre of learning and rearranges classrooms in order to focus on the students and the interactions between them rather than focusing on the teacher and the blackboard. By changing the colours or the desks and chairs, we are not only making the corridors and classrooms look more welcoming but we are also promoting certain behaviours and values.

1.7. Pilot Experiences as a Tool To Guide Our Progress

In order to put into practice all the transformations that we had designed, from the 2013-2014 academic year onward we introduced new educational experiences with the creation of two new stages: the Pedagogical Model at the Preschool Level (MOPI) and the New Intermediate Stage (NEI). Starting with the idea of introducing them gradually, we then designed pilot experiences. These pilot experiences are considered essential processes designed from MEJE's pedagogical approach and with a limited and controllable spread. They serve as prototypes that allow learning about and measuring these experiences before introducing them to all

of the schools. Their details and the schools where they have been introduced are outlined below.

2. Pilot Experiences

The change we are suggesting affects the school as a whole and every aspect that shapes life in our centres. We are confronted with a great challenge, and we strive to measure our capacities and start this transformation process by introducing radically innovative pilot experiences in four different grades.

Therefore, pilot experiences are a way to put disruptive innovations into practice. They must to be introduced within the Horizon 2020 project by gradually adding these changes to the different stages and centres of the JE network once the experiences are evaluated and the learning fully incorporated into the pilot experiences.

2.1. The Introduction of the Pilot Experiences

Currently, three pilot experiences have been introduced with regard to Horizon 2020, each of which is related to a different educational stage. One of them—the New Intermediate Stage (NEI)—has been completed, while the two remaining experiences—the New Pedagogical Model at the Preschool Level (MOPI) and TQE, (*Tercer i Quart d'ESO*; Third and Fourth Year in Secondary Education)—are still being introduced.

Simultaneously, we are also working on other experiences that will be introduced in the coming years and which have to complete all years in the current education system. Next follows is a short description of the features and aims of each of the ongoing experiences.

2.1.1. MOPI

The stage that stretches from zero to six years of age is a very important one in the development and growth of individuals, on both a cognitive and an emotional level. The brain has great plasticity, and with the new approach to this stage we want to guide educational practices to set the groundwork which will allow each student to gradually develop each of the capacities they need to receive information from their environment. It will also allow

them to process this information and to turn it into learning and knowledge while also creating a positive image of themselves.

2.1.2. NEI

For the reasons mentioned above, NEI includes those from 5th of Primary to 2nd of Secondary (from ten to thirteen years old, approximately). In general terms, by 4th of Primary students have already finished learning the reading and writing process and have basic communicative competencies, they know basic mathematical equations and have a basic understanding of symbolic mathematical language, and they have a global approach to their immediate surroundings. The period from ten to fourteen years of age is a new stage of personal growth and cognitive development for children when specific operations are strengthened. From fourteen years old onwards they develop abstract thinking. This new stage (NEI) is related to this natural evolution of unity and psycho-pedagogical coherence at these ages and strives to emphasize stimulating multiple intelligences for each student.

2.1.3. TQE

TQE aims at helping students who are experiencing a really powerful time in their lives, both on the emotional and intellectual scales: adolescence. In this period of life, students require a high degree of self-awareness and autonomy in order to begin making the choice to bring their skills and abilities to help others. This will become a lifelong process, and the students must be provided with strategies to help them lead meaningful lives.

2.2. Program for Incorporation to Pilot Experiences (PIEP)

In order to train teachers for this educational transformation, we have designed the Program for Incorporation to Pilot Experiences (PIEP), a tool for training, guidance, and transformation which enables a successful introduction of the new JE educational model in schools. PIEP aims at getting to know and reflecting on the elements included in Horizon 2020, encouraging discussion to promote a feeling of ownership in terms of essential pedagogical elements in the new educational model, and producing the materials that will be used during the pilot experiences.

2.3. Transformations Along the Path to Horizon 2020

Pilot experiences are spearheading the participative, systemic, and disruptive transformation of our 21st century school. The aim is to spread innovation to all the schools in our network through a process of learning and sharing undertaken by the teachers.

Even though the pilot experiences are limited, the entire network of schools supports them and benefits from these experiences. This is so important that the Council for the Pedagogical Model has challenged the grades or schools that haven't started yet any pilot experience(s) to promote and develop any of the six strength lines in MEJE to spread innovation from the 2017-2018 academic year onwards.

These six strength lines are as follows: 1) Meaningful learning; 2) Learning to learn and learning to think; 3) The life project; 4) Active methodology based on the students' experience; 5) Collaborative learning; 6) Evaluation to regulate the students' own learning.

3. New Intermediate Stage (NEI)

Alongside MOPI, the New Intermediate Stage was the first pilot experience launched by H2020. In the following sections, we look at the reasons for choosing this stage, its implementation process, and its main features.

3.1. Description, *Raison d'être* and Introduction

From our beginning in Horizon 2020, we moved on to design its performance in the classrooms once the participative process had been started and the JE educational model defined. In studies carried out throughout the process, we identified different psycho-pedagogical stages (mentioned in the previous chapter) which guided its performance and objectives in the grades from 5th of Primary to 2nd of Secondary (4 grades in total).

Defining this new stage (NEI) required building a team of teachers exclusively for these grades. This team was organized differently from the rest of the teams in that it consisted of a director, a management technician, a team of tutors for each

grade, and a team of specialized subject teachers. Since it was a single pilot experience that was thought out and shaped for the whole network, it had to be carried out in similar conditions in each of the schools where it was introduced. In order to guarantee the coherence and unity of the pilot experience, we appointed a director of the network who oversaw the three NEI directors in the schools where the pilot experience was introduced.

NEI's PIEP programme was structured in six subject blocks that included 450 hours of guidance. This experience started off with nine weeks of time off for the teachers (substitute teachers took over the lessons during that time). During these nine weeks, teachers stayed at the Monestir de les Avellanes for two weeks and then in CETEI Jesuïtes Bellvitge for seven weeks. During that period, they worked on things such as spirituality (mainly through Professional Vocation Meetings), the new Learning and Teaching Model (MENA), neuroscience, games, and pedagogy through projects. The last subject blocks were devoted to defining the necessary elements for building projects, how to approach those projects in the classroom, and how to evaluate them. Finally, at the end of PIEP there was a mock week mean to recreate a typical week in NEI and other elements of this new stage.

NEI's pilot experience was designed to be carried out throughout two academic years (2014-2015 and 2015-2016). During the first year, only 5th of Primary and 1st of Secondary were involved; 6th of Primary and 2nd of Secondary were added during the following year.

3.2. Basic Elements of NEI

As stated before, NEI is one of the pilot experiences that shapes the how of the Horizon 2020 project and that includes four grades (5th and 6th of Primary and 1st and 2nd of Secondary). In order to better understand it, we will look closely at its eight essential features in the following sections.

3.2.1. The Student

The students have active, leading roles; they work both individually and in groups with their classmates. This cooperative learning methodology is based on the idea that the students work together to cover different areas of the syllabus; they develop complex learning in a meaningful, authentic, and

autonomous way in order to boost their own learning and that of their classmates. They also build up goals and results—both of an academic and a personal nature—that have an impact on them and on their teachers.

The students are guided by their teachers to help them to develop their knowledge of themselves and their critical spirit in order to build their own life projects. Developing these life projects includes building the students' self-awareness, both of themselves and of their personal growth towards autonomy, initiative, and use of personal criteria which guide their interactions with and openness to others.

3.2.2. Teaching Team

NEI's pilot experience promotes shared teaching; a group of two or three teachers lead the learning process of students together. They work as a team with flexible training, so they work in the classroom and evaluate their group of students together. They are in charge of the students' shared tutoring, and they prepare the weekly lesson plan of contents, methodology, space used and amount of time for each activity (there is no fixed, weekly timetable of subjects). Through interaction and shared learning between these groups of teachers, we reach a better process of building diagrams, guides and orientation; it improves our abilities to guide and respond to the students' needs. Each teacher is in charge of tutoring a small group of students; and at the same time, this task involves the rest of students as well in the event of a situation that requires guidance and support.

In this process, the educational influence of the teachers is understood as an external aid to the process itself since learning is individual and different for each student. Teaching is adapted to the individual differences of the students while respecting those differences and the students' different ways of learning.

Therefore, the teachers in each of the classrooms together constitute a true pedagogical community. From this point of view, the educational process not only considers teachers as individuals but as a social unit, linked together through work on specific projects. Finally, the teachers use their distributed leadership as a shared influential process in classroom actions, decisions made with regards to

priority subjects and providing guidance to their fellow teachers.

3.2.3 Content

Our school syllabus has given priority to considering sociological, psychological, epistemological, and pedagogical criteria. Its main goal is the ability to respond to the new social needs, competencies, and learning content essential to fully becoming citizens of the 21st century. Therefore, we must redesign the syllabus while considering only that which is very essential, indispensable and imperative. We should also free it from the excessive content load which has defined most educational systems. In this new approach to what should be taught and learned we identify seven main competence foci: reading comprehension, written and oral expression, problem solving, digital skills, interiority, learning to learn, and social values.

In NEI, content is related to the competencies we aim to develop in students and these are worked on through the use of projects. Teachers have to be fully aware of the mechanisms that have an impact on and condition students' learning, and they should help the students build meaning in order to link their previous knowledge to the new concepts they are given the opportunity to learn.

3.2.4. Methodologies

The main feature of the learning and teaching process in NEI's methodological approach is working on projects, and it is essentially based on cooperative work between the students.

This project work takes on an important role in the students' learning and the teachers' tasks because it is introduced as a very efficient method for incorporating processes and procedures like planning, communication, problem solving, and making of complex decisions. It also allows a global and contextualized approach to the points taught in the lessons.

Cooperative learning is one of the active methodologies based on the student that is promoted by NEI's pedagogical model. It contributes to the development of superior abilities of thought, helps increase motivation, and it improves interpersonal relationships among equals. It also promotes continuous analysis, debate, and discussion, which helps students clarify their comprehension of the

subjects and materials used in the lessons. This in turn enables them to build their own learning, taking into account group and collective dynamics as the main resource in building knowledge.

3.2.5. Evaluation

Evaluation is a tool for improving teaching and learning and—especially for students—is an essential way to self-regulate. To that end, evaluation objectives have to be twofold: they must regulate the type and degree of educational assistance of the teachers to the needs of the students (formative evaluation); they must also involve the students in managing their personal learning activity to achieve the objectives set for them (constructive evaluation). We see evaluation as a tool used by the teacher to reconsider the decisions made regarding educational assistance. Evaluation, in this case, is not simply summative.

Along these same lines, the evaluation system has to constantly enable gathering information related to how learning takes place; it must also allow enough time to give feedback to the students on their learning since it is an essential factor to optimize the quality of teaching. Peer evaluation (meaning the evaluation of others' work) and self-evaluation are also tools that have been incorporated into NEI for the students to measure the level of learning they have attained.

3.2.6. Families

Families and the school itself are the two main catalysts for the students' development. For this reason, we have to encourage mutual support between them that promotes educational potential in both contexts. Families, students, and teachers make up the backbone of our new pedagogical model in NEI.

Families participate and collaborate in the students' learning and teaching process, taking part in the work by projects. Moreover, new communication tools (such as the classroom blog) promote channels of coordination and communication that work to the students' advantage.

3.2.7. Spaces

The educational model of Jesuïtes Educació includes important changes to the physical spaces of the schools in the network; it is one of the most daring

and determined decisions of the deep transformation process begun in the JE network. These new spaces and furniture are designed to be a container for the new teaching and learning processes that has been introduced in NEI, and they strive to create a new atmosphere and new working and interacting possibilities for both students and teachers.

These spaces are wider and extend beyond the basic notion of a classroom; they are joyful, colourful, and minimize noise. The focus is on open and well-illuminated spaces with glass panels to use natural light and serve as another material with which students can work.

We have designed new classrooms with new furniture that can be adapted to different ways of working and spaces separated by bleachers. They are spaces that serve the students' learning processes. The design of the structures, spaces, and furniture of the schools favour interactions, communication, and building relationships between the students. The placement of furniture, objects, and materials allows for a plethora of different options for individual or team-based work to experience different situations in the learning process: problem solving, experimenting, discussion, exposition, etcetera.

3.2.8. Organization

The new educational model involves important changes in the organization of teaching and learning in the classroom and in the general dynamic of the schools. NEI is structured in groups of fifty to sixty students that always work simultaneously; each classroom has two to three teachers who make the students' work fit into groups of different sizes and compositions that depend on the activity. Specialist teachers are also involved to further promote learning in the classroom.

The week is structured according to the projects, and there are no fixed time periods. The teaching team is made up of a variety of professionals from different areas: the chaplaincy, the Department of Psychopedagogical Orientation (DOP), and from TEG (Tècnic de Gestió), Management technician.

This new design takes on an organization system that responds to teaching and learning challenges while including the educational innovation suggestions of MEJE and still taking care of the students' and the teaching teams' needs.

3.3. Schools that have Introduced NEI

The NEI pilot experience began in September of 2014 in three schools in the Jesuïtes Educació network in Catalonia: Jesuïtes El Clot, Jesuïtes Lleida, and Jesuïtes Sant Gervasi.

In terms of the centres where NEI would be introduced, the idea of a pilot experience for the whole network meant that we had to start a process to let the eight JE schools decide whether they wanted to take part in the experience. After having made a decision, the directors of the centres put their schools forward as candidates for the pilot experience, and three of the centres were approved by the general board of directors and invitations extended to those centres. In order to ultimately select the centres in which the pilot experiences would be introduced, the directors of each school were asked to consider the invitation and—if they felt excited about it and felt able to carry it out—to complete the application for it.

4. Methodology and Evaluation Tools

We have developed a specific methodology for the NEI innovative learning and teaching process to approach the planning for and evaluation of the pilot experiences. It is based on the Theory of Change and which we have called MIRARI (acronym for Mission, Resources, Activities, Results and Impacts). This tool enables us to evaluate the impact that the model of person outlined in Horizon 2020 project (which focuses on life projects) has on our students. In this fourth section we are going to explain the methodological design used for this evaluation and the tools it uses to achieve its goal.

4.1. The Logic Model and the Theory of Change in NEI

As we have mentioned before, the final goal of the innovations and changes we have introduced to the teaching and learning process in NEI contributes to educating conscious, competent, committed, compassionate, and creative individuals. This is our educational mission and the model of person on which we want have an influence. We set up our evaluation exercise in order to check on whether we were moving forward towards our objective and to what extent we are progressing.

The evaluation of NEI that we have designed takes as a reference the logic model or the Theory of Change, which is used for transformations within social environments. This model is adapted to our needs and to the specificities of NEI and its education innovation program's evaluation. Therefore, it gathers together ideas based on developing an intervention based on the principle of a hypothetical cause-effect chain: resources, activities, results, and impacts. That is to say, this is the objective of all these changes and therefore the impact on the students that this transformation must bring about in terms of the educational model.

The creation of different chains of results is formulated from expected impacts and, then, the cause-effect relationships in the activities or resources that we need are justified. Simultaneously, since we are part of complex social systems, assumptions, evidence, and external factors that can have an influence on the outcome must all be identified for each part of the chain.

This logic model shows the path we to walk (and which steps to take) in order to fulfil this particular project mission of JE. Our map is based on a logic model and evidence from the reasons for each action and the relationships between them. A logic model also represents the reasoning that lies behind the different initiatives and the reasons why a programme works or not. This is the Theory of Change and the justification of our logic model. When defining a problem or opportunity and demonstrating the activities that we carry out (interventions), a logic model states the assumptions that lie behind the evaluated initiatives.

4.2. MIRARI as a Specific Tool

The methodology for the logical model in different evaluation elements of NEI is called MIRARI, which comes from each of the elements considered in its process (Mission, Resources, Activities, Results and Impacts; see Table 1).

MIRARI allows us to understand and explain the succession of facts that will lead us from different actions to our expected objectives. So after defining where we want to go (the model of person described in the Mission), we have identified the available Resources, the appropriate educational Activities and the expected Results, which will lead us to the relevant Impacts.

Our resources are, firstly, the students in our schools; secondly, the educators (which is both teachers and the management staff); the physical space itself; the furniture, technology, official syllabus, library, time, etcetera.

“Activities” refer to any dynamic occurrence or action that is carried out with the available resources. In accordance to our educational mission (the model of person we are looking for), the activities, the chosen methodology (MENA) and the available resources must all be specifically designed in order to achieve the desired results and impact.

The results are the tangible in that we expect to produce results according to the design of the activities themselves. We are obviously referring to academic results, but we refer also to the milestones reached in terms of development of competencies, abilities, behaviour, and values. We want to achieve well-rounded results as according to the designed activities—that is to say, results that take into account all aspects of a person.

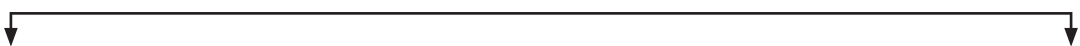
Finally, the impacts are the changes produced in the students themselves according to the model of person (our educational mission) that derives from the program.

MIRARI aims at simplifying the logical model in a systematic and visual way to show and share the relationship between our available resources to introduce the actions, activities we design, and the expected changes or results, all as according to the Mission.

MIRARI should also consider the factors that justify our acts and those elements that can put proper development at risk. We are referring to our initial hypotheses, existing empiric evidence, and any uncontrollable elements. It is important to clearly state what our initial hypotheses are when designing activities, when we decide which activities will be carried out in the classroom, which results we should expect and, finally, which impacts we strive to achieve on the students.

In order to fully support these initial hypotheses, we consider evidence from other experiences or studies. If we use the field of applied research, it seems more meaningful than ever to begin with the existing scientific evidence regarding a suggested action. We must look to any existing studies in our field and incorporate their conclusions. Existing evidence will help us move forward.

Table 1.



Mi	R	A	R	I
Mission	Resources	Activities	Results	Impacts
Assumptions		Evidence	External Factors	
Taking for granted certain considerations regarding a fact		Scientific assumptions	Uncontrollable elements that affect the measurable impacts	

The third concept in Table 1 (External Factors) refers to uncontrollable elements as they affect the learning and teaching process in a direct way. We must take into account the fact that we cannot control all factors in NEI and that some of them can have a lot of influence on our initial hypotheses. Therefore, according to this methodology, it is very important to identify, record, and to take the elements into account at all times.

4.3. NEI Essentials: The Nuclei of the Transformations

Based on our educational mission (our model of person), the methodological options we have designed (MENA), in accordance with our available resources, and while looking for the impact on students, we propose a number of activities that we call the “Essentials”.

They are as follows:

- *Guiding students.* Educators thoroughly guide students and also provide them with individual meetings to reflect, to be inspired, and to broaden their horizons. Students have two or three tutors who are in charge of their group; this way, they have more than one adult as a role model. Moreover, the flexible organization of NEI allows us to better help these students when the need arises.

- *Competent and significant learning.* Working on projects becomes a main tool for learning. We begin with an initial challenge, which gives the project a meaningful and real focus and which can be solved with a cross-disciplinary approach that promotes multiple competencies. This way of working is relevant since we understand that creating working environments that are meaningful at this moment in a student's life and through which they can further develop their competencies is key to achieving a lifelong experience that become the basis for knowledge transfer and future learning.

- *Cooperative learning.* Teamwork has become an essential part of our society, and we strive to providing tools to be successful in this area. Working on projects and problem solving is only possible through delegating tasks and promoting interaction between students. It can certainly help students develop different roles, contribute to their team, and discover their social abilities.

- *Shared teaching.* The new model introduces a cross-disciplinary and complimentary team of teachers that works in an organized way. The coordinated work of different teachers is useful to act simultaneously at different pedagogical levels in order to offer the students everything they need in this learning adventure. At the same time, it is a tangible example of teamwork and how to integrate knowledge. Therefore, NEI moves from only one teacher in the classroom to three of them working together, each of them coming from the point of view of their speciality (languages, social sciences, and science, respectively) and developing their roles as tutors. They guide students while also taking care of the classroom dynamics.

- *Beginning and end of the week.* Students who know their learning objectives will have more opportunities to succeed in their own development. For this reason, at the beginning and end of the week some time is spent looking at and evaluating their learning to revise their goals and, ultimately to look at their progress and difficulties in order to make suggestions for the following week.

- *Beginning and end of the day.* The first moments of the day are used to stop and reflect, and are closely related to the life projects of students. This is done through a relaxed dynamic in the classroom in order to be aware of one's interior feelings and the day that is beginning. The end of the day is a moment of personal reflection on all the learning and experiences each student lived throughout the day.

- *Life project notebook.* This is a key element for introspection and its external projection that we promote in the New Intermediate Stage. It is a personal collection, one designed to work on interiority and each student's own life meaning; it involves keeping a record of their experiences, personal aims, difficulties, and their effort to achieve or overcome these goals or issues. Emotion in our brains and/or our hearts is not enough; writing it down helps us to remember it and makes it more important. This way, the notebook and the feelings it contains can be read again in the future. This tool enables the students to work on their life projects and spirituality.

- *CREA project.* Unlike the rest of the projects in which the starting point is guided by the teachers, in the case of the CREA projects it is the student who chooses the challenge and their way of solving it. Students are grouped with students from other grades as according to their interests with the ultimate aim of producing a collective creation that results in a show for the families. Here, creativity is understood as a framework for a wide range of possibilities for the students to choose between from many fields (including but not limited to technology, literature, photography, music, science, art, and social responsibility, amongst others).

- *Reading project.* This activity aims at heightening the students' interest in reading and books by providing the students with satisfactory and shared reading experiences. The students are given a wider offering of topics, the books are organized according to subject-related itineraries and the students are encouraged to recommend books and exchange opinions. In NEI we are interested in fortifying the enjoyment of reading so that it remains so throughout the life of each student. They can choose the books they read from 200 titles, which are organized by subject and difficulty. Choosing their books, reading them, and sharing their reading experiences are the main foci of these sessions.

4.4. Building a MIRARI for NEI

As described above, we have called MIRARI the methodological adaptation of the logic model to our pilot experience. In order to help organize the many innovations introduced by NEI, we have outlined a MIRARI for each of the nine essentials that de-

fine it, by explaining all the components described above.

Therefore, we have designed nine different roadmaps which together constitute the main corpus of our innovation in education. These MIRARI are shaped as tools to design and plan NEI, used for organizing different elements and allowing for follow-up, management, and evaluation in the future.

4.5. Evaluation Type

From the beginning of Horizon 2020, our will to evaluate the different pilot experiences that would be gradually introduced was an irrefutable premise of the entire experience. We were positive that only from acquiring evidence and obtaining measurable indicators could we move forward and recreate these innovations in a process of constant improvement in the rest of the schools in the JE network. With this aim in mind, evaluation has been split in two activities which measure and gather data from two different phases: process evaluation and impact evaluation.

4.5.1. Process Evaluation

One year after the introduction of NEI, we carried out a process evaluation which measured the level of implication of the different innovations that we had planned. We looked at the resources, activities, and any follow-up as the first indicators obtained from the introduction of the pilot experience, always taking into account its initial design. Through this evaluation, we identified the following:

- The extent to which the NEI pilot experience correlated with MEJE.
- The strength of MEJE's introduction and the aspects that required improvement in order to move forward in NEI's introduction.

The NEI pilot experience evaluation structure was organized around the eight basic descriptive elements that define it (please refer to section 3.2.), its categories, and the primary criteria used to measure it. To analyse and verify the data gathered on the evaluated dimensions, we created an index to measure their degrees of implementation based on a scale from 1 to 4 (1 being lowest value and 4 the highest value).

After interpreting the data we gathered (regarding the extent to which the eight categories were included in the pilot) and alongside the informa-

tion we gathered from the teachers, we elaborated a plan of action to improve NEI's pilot experience. The report also includes suggestions for improvement and revision to be carried out throughout two academic years and that affect different actors in the program, ranging from the teaching team to the general directors, amongst others.

4.5.2. Impact Evaluation

For impact evaluation, which is looked at in the present report, the main focus is different. This activity puts forth effort to obtain evidence regarding the impact that the NEI pilot experience has on its students in relation to the JE Mission. That is to say, it attempts to ascertain if we are producing an impact on students and turning them into competent, conscious, compassionate, committed, and creative individuals.

As we are willing to get all necessary information to evaluate the efficiency of NEI, we have taken advantage of the fact that NEI has been introduced in three out of the eight schools in the JE network to carry out an impact evaluation based on a semi-experimental method. We have identified an intervention group (participants in the programme) and a comparison group (those who do not take part in the programme) and studied them during the same observation period. In contrast with experimental methods—which are based on randomly allocating participants in the intervention group—in this methodology the selection of the sample is based on the similarities between both analysis groups.

In order to validate our method, additional observations are required prior to the intervention, both for participants and non-participants (this is a quasi-experimental difference-in-difference technique). This practice is not commonly used in education, and this fact enables us to better measure and compare the impacts of the different models on the teaching and learning process. Despite the fact that in this first round of evaluation we have not been able to obtain these observations, it is one of the improvements we intend to add to future evaluations.

4.6. Ideal Impact Types

The process of impact evaluation is approached as an applied research that goes beyond just resources and designed activities and focuses on the mid- and

long-term impacts that are reflected on students in their ways of learning, their mental frameworks, and in their behaviour. Given that the expected impacts can be different in nature, we have defined three ideal types as according to their typology: behaviour, mental framework, and learning.

4.6.1. Behaviour

With regard to the pilot experiences, this refers to the changes in the attitude or in the capacity to guide oneself; it is the ability to do something in a way that is different from the way you knew to do it previously. These changes are made visible through outcomes, never directly. In other words, this will be perceived indirectly through its results, based on what the students are like, what they write, or what they create.

4.6.2. Mental Framework

When we refer to changes in mental framework, we are thinking about an impact on a person that will remain with him/her over time and that modifies his/her way of understanding the world and his/her relationships between people; that is, his/her values and beliefs. We exclude circumstantial or short-term changes from this category since they do not permanently affect people.

4.6.3. Learning

This third category of ideal impact types includes impacts that are brought about by experience and that are acquired through practice, observation, and imitation. This group includes the assimilation of new ideas, as in those that are possibly not consolidated in the everyday knowledge of the students but that are already part of their corpus of knowledge (even though they have not yet necessarily modified their routine in any way).

5. Research Design and Developed Actions

This evaluation is the first exercise designed to observe the impact of NEI on the students who have been part of it for two years in terms of becoming conscious, competent, compassionate, committed, and creative individuals. In this section, we are going to describe the way in which our research has been designed to reach this goal.

In order to do that, the following sections are used to describe the following: 1) How we come to our understanding of the evaluation (the methodological limitations and their extent); 2) Those who have helped us along this adventure; and 3) The places where we have carried out the fieldwork to obtain the necessary data to answer our research question(s).

5.1. Impact Evaluation as a Repetitive Process in Future Evaluations

The sample used in this evaluation includes two years of NEI; thus, it only gathers information from a short period in the global schooling stage of these students and it does not even cover a whole educational stage.

For this reason, in this first evaluation we are not especially looking for concluding empirical results. We are simply striving to polish and measure the evaluation tools in the first pilot experience—two years after its introduction—as according to the public commitment made by Jesuïtes Educació when it began.

Aware the complexity and difficulty of this challenge, we understand that this exercise will constitute only the first step of evaluation, and that the evaluations yet to come will allow us to adjust and improve this evaluation methodology and the measuring tools according to contributions from the participating research groups and those that may take part in the future.

We believe that only through a gradual process can we meet our final objective: building an evaluation system that is able to unveil objective data linked to the JE educational model in our schools and that lets us evaluate the impact of such model in a rigorous and objective way.

5.2. NEI's Expected Impact

Taking the JE Mission as our starting point, we put together—while considering the age of students when they would be finishing NEI—an illustration and list of features of the conscious, competent, compassionate, committed, and creative person. This work—both new and necessary—has turned the definition of the Cs into seventy-five impacts that we expect to see in students.

These seventy-five impacts are classified according to three ideal types defined in our specialized

literature; later on, they are related to each of the evaluation tools that have been carried out in this report.

In this way, we have created a dashboard that establishes a link between each of the expected results and the way we have to measure them.

5.3. Coordination Carried Out by CETEI

As an innovation and research node of the JE network, CETEI has been in charge of coordinating the evaluation process from the beginning, even though it has carried out a number of roles for each of the lines of actuation as according to the features of each undertaking.

In terms of observation (process evaluation), CETEI carried out direct observations during the 2014-2015 academic year. When discussing impact evaluation it has had a two-fold role.

On one hand, it has coordinated the actions of the external research groups and has also carried out some research in order to obtain further evidence to complete the information-gathering of as many impacts as possible (in relation to the model of person that we have defined in the Jesuïtes Educació Mission).

On the other hand, CETEI has gathered conclusions from both external and internal studies to write this evaluation report on the New Intermediate Stage.

Therefore, the role carried out by CETEI regarding NEI evaluation can be summarized in four main points:

- Collaborating on the creation and definition of NEI's MIRARI with the directors of NEI.
- Carrying out process evaluation throughout the 2014-2015 academic year and writing and handing in a final report in the fall of 2015 to promote measurement and improvement of the NEI pilot experience.
- Coordinating NEI's impact evaluation and ensuring the participation and involvement of three external research groups; this is all while conducting different measurement actions firsthand.
- Compiling the reports of each external research group, writing reports on all relevant measurement actions, integrating and relating the results, and writing the final impact evaluation report with its conclusions and recommendations.

5.4. External Research Groups and Their Research Foci

Jesuïtes Educació has designed a collaborative evaluation project led by CETEI and with the collaboration of different external research groups to meet the challenge of external research. Their particularities, objectives, and tools are studied with more detail in the following sections⁴.

5.4.1. FLACSO Argentina, Education Sector; Team Led by Dr. Sandra Ziegler

The objective of this team's research was to analyse one of the essential activities used in NEI in order to study the impacts that were observable in the students after the incorporation of this educational innovation. More specifically, their research was on the essential activity "The Beginning and End of the Week".

This essential activity tries to show the students their objectives and the timetable for a normal week in school. One of its particularities is that it enables an anticipative exercise involving explanation and engagement of the students in terms of their goals and the itinerary suggested for that week. At the same time, it becomes a self-regulatory element for students and teachers. The commitments, milestones, and activities that will take place during the week are clearly stated. This feature is precisely that which allows students to be able to measure their objectives and any pending tasks once the week is over.

This research is based on two groups of students that share a series of common variables and attributes (age, characteristics of their educational centres, and the socio-economic attributes of their families, among others) but who are living different school experiences. Since this is a relevant difference (resulting from the dynamic of NEI's progressive introduction) we want to isolate the way in which the devices of change are functioning and which results can eventually be derived from NEI's application. To that end, we designed and validated tools ad hoc and in line with a number of preliminary

hypotheses (listed below) that were analysed through fieldwork. The tools that were created were used in a randomly selected sample from the students in 2nd of Secondary in two of the network's schools in order to have both an intervention group and comparison group. The study is qualitative and aims at identifying a number of tendencies; it has no intention of assuming or making projections that are intended to be universally representative rather than just the two analysed cases.

The initial hypotheses are as follows:

- The essential activity labelled "The Beginning and End of the Week", which states the tasks and objectives for to reach and enables more control for the students on their own learning.
- This essential activity contributes to the fact that students can become aware of their obstacles and successes in terms of school tasks.
- It redefines the teachers' and students' tasks while encouraging students' autonomy.
- It rearranges the individual tasks of the students and it offers a relevant space for cooperative work.

To carry out this research, two different qualitative tools were used:

1. A questionnaire with open-ended questions that aimed at measuring the group dimension present in individual work. It was made available electronically. It is comprised of a total of fifty-four answers from students; twenty-seven from each of the groups (intervention and comparison), with twenty-six girls and twenty-eight boys in total.

2. A focus group with a structured script. This tool aimed to gather information on how the students formulate their school tasks throughout a given week, and contributes toward clarifying and understanding the activities of that week as a single unit. There were two focus groups with a total of twelve students: six (three girls and three boys) in the intervention group, and another focus group with the same number of participants formed the comparison group. The selection of the students was random.

By administering the questionnaires and using the focus groups, some of the results of NEI's that structure the methodology were analysed by comparing the answers of the students who took part in the innovative project to those of the rest of the students. The questions tried to include a number

4. For more detailed information on the research groups, their object(s) of study, the tools they used, and the results they obtained, please refer to Appendixes I and II in this report.

of ideas that we consider to be underlying principles for introducing the essential activity involving the beginning and end of the week and that can show differentiating results between students with regards to the aims of the school task(s) and its structure, planned timing, and the focus on teamwork.

These questions were designed to identify the differences in the working modalities suggested by the schools, the ideas that students have regarding learning in terms of its planning and management, and to identify the reasons that can explain the success or failure of this process. Moreover, the aim was to identify some evidence of the impacts that the methodologies we used have on the students with regard to how relevant the students consider their classmates' contributions to be. Subsequently, we wanted to understand if the students would necessarily reformulate their own ideas and we strove to discover what the students' perception of learning in a collective activity is in reality.

All the aforementioned elements are part of the impacts previously defined in the design of this activity and which are seen as expected results in relation to the introduction of the essential activity called "The Beginning and End of the Week".

5.4.2. Blanquerna - Universitat Ramon Llull School of Psychology and Sport and Education Sciences; Team Led by Dr. Josep Gallifa

The main objective of this investigation was to obtain data relating to the elements that have been introduced in the innovative educative systems (like NEI) that are related to creative thinking, behaviour related to learning and personal relationships, and students' mental maps or representations.

Three methodological tools were used in this study:

1. The Torrance Test of Creative Thinking (TTT). The scale for this test is set for Spanish citizens and designed to be used in both Primary and Secondary education stages. There are scales for both groups (Primary and Secondary), and it has two subtests.

- A figurative expression subtest, which evaluates creativity based on drawing a picture, completing a picture, and creating shapes using parallel lines. It can be done collectively and it takes around thirty minutes.

- A verbal subtest, which evaluates the level of verbal creativity of students. It involves four activities: supposition, unusual questions, unusual uses, and improvement of a product. It can also be done collectively and it also takes around thirty minutes.

Both subtests provide global measures and, simultaneously, measures in terms of the following dimensions: originality (new and non-conventional answers), fluency (number of answers), flexibility (variety of the answers), and elaboration (details that improve creative production).

The sample for this study was 170 students (54% girls and 46% boys), from which 83 (49% of the total number) were included in the comparison group and 87 (51%) in the intervention group.

2. A focus group with a structured script that was validated in pairs to identify students' attitudes towards learning and interpersonal relationships. This is an ad hoc tool for this evaluation and it is comprised of ten questions with consideration for two specific dimensions:

- Competencies that deal with living alone in a complex world or knowledge society.
- Competencies that deal with living together in a complex world or knowledge society.

The first dimension is divided into three sub-dimensions: learning management, management of our own capacities, and management of challenges and opportunities. The second dimension is divided in two subdimensions: management of participation and implication as well as management of interpersonal relationships.

There were four focus groups with eight students in each group. Two focus groups were in the intervention group (students in 2nd of Secondary) and two in the comparison group (students in 2nd of NEI). The students were randomly chosen but kept the same number of students of each sex per group.

3. An individual questionnaire using the Liker scale to analyse students' mental maps and their progress toward the different main elements of NEI. This ad hoc questionnaire included twenty questions and it was validated by three experts. Its goal was to explore the self-perception of the students in both groups (intervention and comparison) in terms of their learning processes and related mental framework.

5.4.3. Research Team Led by Dr. Caterina Calsamiglia (CEMFI and Barcelona GSE) and Dr. Moran Cerf (Kellogg School of Management)

The main objective of this research study was the impact of NEI on the students' learning processes and abilities. More specifically, the aim was to observe the effects that this new pedagogical model has on the students' personal features, cognitive and non-cognitive abilities, and on socio-emotional competencies.

To that aim, a number of tools were used in order to measure the students' capacities in the three abilities described above. These measures combine available scientific evidence in different disciplines (psychology, economy, neuroscience, and behavioural sciences), even though only a few studies have looked at them together with the same aim as this research study. Therefore, our second objective was to test the effectiveness of the suggested measures in order to study the features and abilities of the students.

This exercise took place in two phases. The first one (the pilot phase) was carried out in June of 2016. We examined the tests and measures that were going to be used, and we also solved any logistic issues related to their introduction. For the second phase (carried out in December of 2016), the tools used during the pilot phase were used again after being improved. In order to carry out the comparative study, we have gathered data from forty-three students in the intervention group and fifty-three in the comparison group.

Three main blocks of measures were used to analyse of the impacts of NEI on the students:

1. Self-assessment questionnaires, which analyse personal traits, features, abilities, expectations, and socio-emotional abilities and strategies. To be specific, there were actually four of these questionnaires.

The first questionnaire (or "Big Five") organizes personal traits into five main personality factors: conscientiousness/orderliness, energy/extraversion, friendliness/cooperativeness, emotional stability, and intellect/openness to experience.

The second one (the "Locus of Control" questionnaire), measures a person's expectations for the factors that determine and control the events in their life. It includes four pairs of sentences; one

expresses an idea related to an external locus of control (something outside of their control) and another one to an internal locus of control (something determined by their own actions). The student has to decide which one represents them better and define to what extent they feel represented by the other.

The third questionnaire (the "Emotional Intelligence Trait" questionnaire) is used in a shortened version for teenagers and measures emotional intelligence in terms of the competencies, abilities, and emotional facilitators that determine the capacity of an individual to understand him/herself, relate to others, and be empathetic. It consists of thirty short questions, two for each of the fifteen aspects of emotional intelligence identified. The answers range on a scale from 1 (disagree completely) to 7 (agree completely).

The fourth one is the eight-item "Grit Scale"-questionnaire for children that measures their perseverance and passion for long-term goals through two factors: consistency of interests and achievement of the goals set. It includes eight questions with five answers: "Not like me at all"; "not much like me"; "somewhat like me"; "mostly like me"; or "very much like me".

2. Behaviour exercises and tests using computers, designed to create an atmosphere where the student must use those specific abilities or capacities that we want to analyse. We used three of these.

The first test measures a student's prosocial behaviour (sharing, providing support, helping others, etc.), or actions made for the benefit of others. Each student is randomly given the names of five classmates. The student then has to answer some questions for each those five peers. The questions are designed to measure degrees of frequency with regard to more aggressive or prosocial behaviour.

Another exercise is structured around mathematical tests that measure complex processes of thought or function-specific mental capacities which involve being able to learn critical abilities. We also carried out the "cube" test, which is an open-ended question test to find out if students are able to put traditional mathematical problems aside and find a more complex solution.

Finally, to measure the students' mental frameworks (their perception towards their abilities), we used a mathematical exercise called the "tiles

exercise”. This consists of four mathematical problems, each related to one another, and each of them more difficult than the previous one. At the end of each test there is a video explaining the exercise and that includes information to solve the following problem. By observing whether they watch the video or not, we can obtain information about each student’s mental framework

3. In a second phase of evaluation, additional behavioural exercises and tests will be carried out using a computer with electroencephalography devices (EEG) to record—in an easy and non-invasive way—information on the students’ brain activity in different contexts, such as during a task, before a stimulus, or while resting⁵.

5.5. Evaluation Actions of CETEI

The fourth research group—CETEI itself—aims to gather and analyse information on three innovative aspects of NEI to measure their impacts on learning, mental maps, and the behaviour of the students. These aspects are learning self-regulation, the classroom environment, and the reading project. Additionally, those elements that are closely related to the cognitive capacities and basic competencies of the students in NEI have been reviewed.

At the same time, two other complimentary analyses have been carried out. One on the impact of NEI on the teachers and the other on the parents’ perceptions, since parents and teachers are two actors who play an essential role in the learning and teaching process. Teachers and parents have also been given a main role in this pilot experience.

We aim to study the effect of NEI on the teachers’ mental frameworks and any new perceptions they have of teaching, both from the impact it has had on a personal level and the influence it has on the teacher-student relationship. We are also striving to a certain parents’ opinions regarding the experience(s) of their children during NEI.

Both of these actions help us triangulate and verify some of our results, since the results cannot be considered a direct source to measure impacts.

The tools that have been used in this research are listed here:

1. MSQI questionnaire. This measures learning strategies and motivation to analyse one’s degree of self-regulation. Within NEI’s evaluation framework, we decided it was essential to move forward in the process of gathering data which would inform us of the existence of differences in the strategies and motivation of the students. The hypothesis behind this statement is based on the fact that the transformation of the teaching and learning process as a result of this pilot experience encourages learning autonomy and self-regulation. Further, it is complemented by direct actions in the classroom, such as the essential activity around the beginning and end of the week. We consistently looked for a quantitative analysis tool to measure these elements and provide information and evidence, and it is introduced in this report.

In order to obtain all relevant evidence to confirm this hypothesis, the test we chose was the Motivated Strategies for Learning Questionnaire (MSQI). It is similar to a Likert questionnaire and measures ten items, four of them related to learning strategies and six to motivation; each has ten statements that go along with it. The answer options range from 1 (not at all true of me/not at all/never) to 5 (very true of me/a lot/always).

In order to measure NEI’s impacts on learning strategies and motivation, the questionnaire was given to the intervention group in June of 2016. Striving for more data diversity which would benefit our research, at the beginning of the past academic year we incorporated a new generation of students into the same intervention group. This was the youngest population group allowed by MSQI. On the same dates, the questionnaire was repeated for the two homologous generations in the comparison group. In the end, the questionnaire was taken by a total of 349 students; 211 were in the comparison group (112 born in 2004 and 99 born in 2002) and 138 were in the intervention group (72 born in 2004 and 66 in 2002).

2. Classroom environment. The changes in the NEI classroom have been very relevant in terms of

5. This second phase took place in February of 2017, at the same time as this report was written. Consequently, its results and conclusions are not included in this first stage of evaluation of NEI.

6. López, L. & Bisquerra, R. (2013): “Validación y análisis de una escala breve para evaluar el clima de clase en educación secundaria”. *Psicopedagogía*, Num. 5, pp 62-77.

the physical spaces themselves to shared teaching (among other things), and this is the reason why it was considered necessary to evaluate the perception of classroom environment by students in 2nd of Secondary. Therefore, we administered the Brief Scale Classroom Climate questionnaire (EBCC, in its Spanish abbreviation) designed by Lòpez i Bisquerra (2013)⁶, which includes eleven items arranged in two dimensions:

- Group cohesion, which includes satisfaction, involvement, and cohesion among peers.
- Group leadership, which includes the teacher-student relationship, classroom order, organization, and setting of the tasks.

EBCC is also similar to a Likert scale and presents four possibilities for each answer: never, sometimes, often, and always. In order to analyse and verify the data, we have built an index which ranges from 1 to 4, with 1 the lowest value and 4 the highest. With this scale we measured the two facets mentioned above: group cohesion, which we show as a dynamic, horizontal factor among the students; and group leadership, which becomes a vertical factor (such as for the teacher-student relationship).

The questionnaire was given to two groups of students (both in 2nd of Secondary) in two schools in the Jesuïtes Educació network in order to have one intervention group and one comparison group. The tests took place in June of 2016 in both schools. The sample included fifty-five students, twenty-seven from each centre.

3. Reading project. The Reading project is one of NEI's innovations which aims to stimulate the pleasure of reading through reducing the number of compulsory books and by granting a higher degree of freedom of choice. Students can choose the books they read from over 200 volumes, organized by reading topics and difficulty. Two hours per week are devoted to reading. One hour is for autonomous reading, and the second is for reading comprehension sessions and encouraging the habit of reading in students (the latter is guided by the teachers).

The project also provides a tool—the reading project blog—which is used to let others know about and recommend books as well as keeping other informed about the different books that are read in the classroom. With this blog, we want to

promote communication and discussion around reading and move this activity from a personal to a collective space.

A tool was created ad hoc in order to obtain all relevant data necessary to evaluate it, which included an online survey given to students in NEI (from 5th of Primary to 2nd of Secondary) in the three centres of the network where this experience was taking place. A total of 1,030 answers were gathered. The answers were distributed as follows: 21.9% from 5th of Primary, 20.5% from 6th of Primary, 31.2% from 1st of Secondary, and 26.3% from 2nd of Secondary.

4. Basic competencies. When NEI was first introduced there was a risk of a decrease in the students' results in terms of the official standards of competence levels as a consequence of our disruptive and systemic change.

We also wanted to take advantage of the tests in basic competencies that are carried out by the Catalan government (Generalitat de Catalunya) every year at the end of Primary and Secondary in all schools, and we decided that we could analyse the results of these tests. The most recently-available tests within NEI are the ones taken by 6th of Primary students at the beginning of 2016 and that were made available in June of 2016.

The results of these tests are distributed amongst four values (low, medium-low, medium-high, and high) to classify the population tests. With this information, each range was given a value and it was multiplied by the final percentage obtained. The result then was standardized to obtain a result ranging from 1 to 10 for both competencies and subcompetencies. This allowed us to expand the diversity of possible results and the options for comparison between schools, and interschool comparison, over the course of the analysed years.

The analysed sample included all the students in 6th of Primary in the eight schools of the JE network from 2014 to 2016. Pilot experience began in 2015 with the students in 5th of Primary. Therefore, these students are the only complete NEI generation that can be analysed. The rest of the years do not correspond to any grade included in this experience. The competencies analysed are grouped into four subject areas: mathematics, the Catalan language, the Spanish language, and the English language.

5. Number of passing/failing/repeating students over the last years. This is intended to measure the impact of NEI on academic achievement while following up on the same line of analysis of the basic competencies. In order to investigate if NEI had any impact on academic results or not we also considered an analysis of the marks and the number of repeating students.

The results of the students in 2nd of Secondary were gathered over the course of four years—from 5th of Primary to 2nd of Secondary—regarding the following subjects in six of our schools: the Catalan language, Social Sciences, and Science. This sample allowed us to analyse 30,523 different academic results. In three of the six centres, this generation of students has undergone two academic years while part of NEI (1st and 2nd of Secondary), and two without it (Primary).

Gathering the results was possible thanks to the Academic Office of the JE Network (SAX). It is a newly-created body within Jesuïtes Educació that includes all the administrative services of the eight schools in the network in one space. Therefore, information on all the students can be accessed in a fast, easy, and homogeneous way.

6. Satisfaction questionnaire for the families of the students who have completed NEI. Families and the school are two of the most important contexts for the development of children, so there must be a positive relationship between both the school and the family. Being aware of the way they live and perceive this innovation process was a point that had to be included in this report.

A tool was designed ad hoc to gather this information, and it consisted of an online questionnaire that was sent to all the parents of students in 2nd of Secondary (students who completed NEI in June of 2016).

The questionnaire (similar to a Likert test) includes twenty-four statements for evaluation with answers ranging from 1 (disagree completely) to 5 (agree completely), always pertaining to their child(ren)'s experience(s) during NEI. These twenty-four items were grouped into four different sections: the learning process, spaces, communication, and family involvement. In order to obtain more quantitative information with this qualitative data, many answers also offer an open space for families to provide specific examples or additional elements

that they may find appropriate to communicate.

This questionnaire was sent to 350 parents of NEI students in the last week of the academic year 2015-2016. We received a total of 140 answers. However, we cannot be completely sure if each of the answers was from a family member or a student. Fifty-seven of them were theoretically from parents of students in Jesuïtes Lleida (44.2%), thirty-nine (30.2%) from Jesuïtes Sant Gervasi, and thirty-three (25.6%) from Jesuïtes El Clot.

7. NEI's impact on teachers. Due to the main role they had in NEI as well as their exhaustive knowledge on development, gathering the teachers' feedback was necessary. They are the ones who are in the classrooms every day and are an essential part of this transformation of education.

Therefore, we created six focus groups and conducted three interviews to gather the feedback and opinions of teachers in the three schools that took part in the first Program for Incorporation of the Pilot Experiences. We chose the teachers who are still tutors of 5th and 1st of Primary as well as the three NEI directors.

Both the focus groups and the personal interviews were structured around four main areas with the aim of covering the main changes introduced by NEI. They are:

- Changes in the teachers' mental frameworks regarding the pedagogical model and teaching after two years of participating in NEI.
- Changes in their relationships with the students as a consequence of the new and different role of the tutor.
- Changes in their personal and professional experiences (vocation) as a result of this NEI experience.
- Changes in their relationships with the students' families.

These actions, the focus groups and the interviews, were developed between November and December of 2016 and with the participation of twenty-two teachers in 5th of Primary and 1st of Secondary (six from Jesuïtes El Clot, nine from Jesuïtes Sant Gervasi, and seven from Jesuïtes Lleida) and three NEI directors.

5.6. Intervention and Comparison Groups

The tests conducted by the three external research groups (Calsamiglia-Cerf, Blanquerna, and FLAC-

so) were carried out by students in 2nd of Secondary at two schools in our network in order to have both an intervention and a comparison group. These groups were formed while considering the similarities of their study populations in regard to exogenous educational variables that can have an impact on our anticipated results, and they are as follows:

- **Intervention group.** This cohort was built from within the intervention group, and they received the same tests of the three external research groups along with the Classroom Climate Questionnaire by CETEI. All the tools were administered to two groups of 2nd of Secondary in NEI.

- **Comparison group.** This cohort was chosen as a comparison group, and they received the tests of the three external research groups as well as the Classroom Climate questionnaire by CETEI. All the tests were given to two groups of 2nd of Secondary in NEI.

- CETEI has conducted the MSLQ questionnaire in two schools and two grades in an attempt to tentatively establish the difference-in-difference statistical technique. So in a centre where NEI has been introduced, the test was taken by both the students of 2nd of Secondary and the students who started 1st of Secondary in the 2016-2017 academic year. Since the MSLQ questionnaire is designed for Secondary students, the newly incorporated students also had to take the pretest. In the comparison centre, the questionnaire was given to the aforementioned grades in order to have a double comparison scheme between schools as well as within the same centre but between different grades.

Additionally, six focus groups with semistructured scripts were formed from all the NEI teachers who took part in PIEP 1 in order to measure the impact of this pilot experience on this group of professionals. Likewise, we have given out and concluded different surveys to measure both the efficacy of the Reading Project and to obtain data on the degree of parental satisfaction with students in NEI with regard to this new stage.

The remaining information that was analysed and studied by CETEI has been obtained through the facts made available by the registry of the schools in the JE network and the shared databases for the eight schools in the network (Academic Office of the Network, SAX).

5.7. Data Blending and Writing the Final Report

With the research design created by each research group, CETEI constructed a single dashboard that directly links each of the actions taken within this evaluation to the impact that we wish analyse and measure. This direct link constitutes a tool to gather information on the way the used tools show evidence of one (or more than one) of the five features of the person defined in our Mission.

According to the logic model and MIRARI, with this information we can directly link the desired Result, the Action that has been carried out in order to reach it, and the Resources that have been used in the process.

Bearing in mind this planning exercise, for writing this report we have gathered and analysed the conclusions of the studies from each research group and of the seven studies carried out by CETEI. All of the data we received has been blended together according to the aspect of the Mission it strives to fulfil. At each step along the way we have taken the evidence that we need to focus on and then classified it according to the kind of person it applies to within the idea of the 5 C's (conscious, competent, committed, compassionate, or creative).

The organization of the results of this first NEI evaluation has followed this structure as well (as we can see in Section 6). We gathered all available evidence related to each of the C's and analysed it. We then highlighted the essential activities that were designed to boost that particular C and the MIRARI that structures and plans that C.

Finally, in order to confirm and reinforce some of the conclusions we reached, we also add the thoughts of fathers, mothers and teachers about NEI to the data in compiled in the reports.

5.8. Limitations of the First Stage of Evaluation

This is the first impact evaluation of a pilot experience as a whole within the Horizon 2020 project, and it is a direct response to the commitment made by JE at the beginning of this project. As we mentioned before, NEI's Theory of Change states that the aim of this innovation is transforming the teaching and learning process to make an impact on the students with regard to the seventy-five items

which have been listed in the educational mission of NEI.

This necessarily implies that we will have to wait some time before measuring these impacts in a more precise and trustworthy way; the population for analysis will have been in the old school system longer (nine years) than in the new one (two years).

In JE, however, we believe that our educational innovation must be inseparable from its evaluation. We wouldn't meet the principles and basis for our own educational commitments if we didn't evaluate this transformation process. To this end, we have introduced evaluation while being aware of its limitations; at the same time, we are setting the ground for the next transformations to come, establishing a new evaluation culture, and promoting a process of constant improvement that we certainly need at this moment of change to the education system in our country.

Bearing this in mind as a starting point, we have bet favourably on measuring the tools that we have used to gather the necessary information for our evaluation. As a result, this first attempt must inform us and provide us with the learning relevant to facing the evaluations yet to come with a higher methodological precision, especially as regarding gathering more accurate, objective, and easy-to-verify evidence.

For this reason and despite the limitations on this evaluation, we are positive that it will set the groundwork necessary to meet our expected measures in future evaluations, such as the one that will take place in June of 2018. This task is completely in line with the idea that has been present throughout the development of Horizon 2020; that is, learning by doing.

6. Results of the First Impact Evaluation of NEI

As we have discussed in section 5.7., we organize our results according to the features of the person we are looking for and that we have defined in our Mission. In order to organize the information that we've gathered, we will follow a common structure for each of them as described below.

Beginning in section 6.1., we describe JE's idea of a competent, conscious, committed, compassio-

nate, or creative person. For each section, we list some key words that summarize the abilities that each of these aspects of a person should include. We then highlight the main results which match each C definition best out of the seventy-five impacts defined at the beginning of the NEI.

Next, we introduce the conclusions that we have reached with all the interventions that directly affect each part of our educational Mission in relation that each particular C. This also includes complementary information from families and teachers.

Thirdly, we include references to those essential activities in order to understand which action within NEI has helped obtain a given result in a specific field.

Lastly, for each C we interpret our results and draw some preliminary conclusions on the extent of NEI's impact while considering the previously-achieved and analysed results.

6.1. Competent Person

Definition

A person who is able to create, understand, and use knowledge and skills to live in their own context and transform it by integrating instrumental, interpersonal, and systematic competencies.

A competent person is defined as having acquired the following abilities, competencies, and values: conflict resolution, analytic thinking, maximum effort, self-motivation, and objective- and leadership-based management.

The expected impacts of this definition can be summarized as:

- A student who manages their learning objectives.
- A student who uses learning in their everyday life.
- A student who can solve problems in their life.
- A student who uses efficient thinking skills such as problem solving, decision making, reflective analysis, critical thinking, and who has the ability to summarize and create ideas.
- A student who wonders about the aim of an activity before starting it.
- A student who knows how to conceptualize and structure their learning.

Main Results of the NEI Evaluation Tools

One of the main results we wish to underline in this section is from the study carried out by FLACSO.

It highlights that after NEI, **students have more power in terms of being the protagonist in their own learning** as a result of the variety of learning strategies that they have acquired. From there, most relevant instruments are the metacognitive abilities that provide students with a wide range of possibilities while learning and facing difficulties, encourage their capacity for teamwork, and promote design of learning strategies ad hoc (such as mental maps).

The same study by FLACSO also concluded that the role of the students' learning changes as a result of NEI's **removal of the teacher from the centre of the classroom**. The students become more autonomous, which in turn helps cooperative learning. The teacher becomes a guide who helps students with their work in a complete and well-rounded way. This new distribution of roles attenuates the focus on one person and the idea of the teacher as the only centre in a classroom.

From the study carried out by Blanquerna on the changes to the students' mental frameworks after being in NEI, we cannot see any statistically significant difference that differentiates the students in the intervention group from those in the comparison group. However, our analysis notes certain non-concluding tendencies in this first evaluation regarding the impacts of the competent person. This provides information on those features which we will have to observe in the future in order to study their evolution. These include a certain predisposition that the NEI students seem to have toward becoming more capable in order to **achieve new and useful learning skills for the most difficult challenges** that they face.

Regarding another procedure from Blanquerna which aims at identifying possible changes in the students' self-perception of their own behaviour and personal relationships, we would like to highlight the ideas of NEI students on knowledge transfer acquired in other situations. From the focus groups we can infer that the students in the intervention group (NEI) have a higher degree of certainty that they will be able to transfer learning from school to future situations outside the school context. The students state that working on projects—especially those related to current social topics—are the most relevant to being able to understand the world and using their knowledge.

The same thing happens in the results of the classroom climate analysis carried out by CETEI. This study showed that the results for the vertical dimension of the classroom climate (which measures the group management, order, organization, and orientation in a task) point at clearer activities and objectives for the **management of objectives and metacognition of the students**.

CETEI also used a tool to gather information (the MSLQ) on this element of the JE Mission, but it has not provided conclusive data in the end. This tool was used to obtain more data regarding the existence of self-regulation differences between the learning strategies and motivation of the NEI students. However, as stated in Report 1 in Appendix I, we could not find significantly different patterns between the two evaluated populations.

Finally, we would like to highlight the results of the CETEI reports on **basic competencies, achievements, and students who repeat years**. They clearly show that the cognitive abilities of NEI students as measured by official competency tests are maintained at high standards. This is a fundamental element to us, since while these results are maintained at high standards, we also have evidence that we have added other skills that are very important and that aim towards an improvement of personal and social abilities of the students. We can observe clear signs that NEI has not affected academic achievements negatively; the same high levels have still been obtained in external tests while incorporating other elements included in JE's education mission.

Reflections by the Families

From the external perception study with the families, the first piece of data that we want to highlight is that 58.3% of participants in the survey agree or agree completely with a statement regarding the development of their children in terms of being more competent. When asked to give examples of this feature, the families said that now their children are more competent regarding their learning, adaptation of new technologies, and/or when searching for information. Some of their comments are, "He has completely assimilated the learning method and the tools he has to use"; "I have seen her showing a higher degree of autonomy when overcoming the difficulties she has when doing

homework”; and “She is more autonomous when managing daily information and obtaining the information and material that she needs for the projects on the Internet”.

Reflections by the Teachers

The teachers’ point of view here reinforces the importance of the NEI projects since they add meaning to the students’ learning. This new methodology, teachers say, enables transferring knowledge to other learning spaces and environments. Likewise, since multiple intelligences and individual differences are taken into account it expands the offerings for ways to convey competencies: “It now is easier for students to find their own ways of moving forward and to see what they can contribute to different activities; it is easier for them to discover their abilities”.

Activities (Essentials) that Promote a Competent Person

Of the nine essential activities included in NEI, three are closely related to the competent person: competency-based and meaningful learning, focusing on the beginning and end of the week, and shared teaching. With regard to the first one, working in meaningful contexts for the student enables learning and aids understanding and information acquisition. At the same time, working on competencies helps transfer learning to other contexts and situations since the students’ comprehension is higher. Moreover, it does not prohibit learning the contents themselves.

Working on projects enables competency-based learning, and it also allows students to control and regulate their own learning processes. Therefore, tools that encourage self-evaluation and transfer (alongside self-perception as a learner) help students to acquire one of the main competencies of NEI, which is learning to learn.

The focus on the beginning and end of the week reinforces this idea, since it promotes the idea that students should have their learning objectives clearly in mind to autonomously plan, regulate, and evaluate their activity with a greater chance of success. For this reason, at the beginning of the week we allow some time to clearly set forth any personal and group milestones for the week. At the end of the week, the students revisit these objectives to see if they have been met and then make

suggestions for the following week’s work. Having weekly objectives improves motivation, commitment and consequently, learning. It also helps the students acquire knowledge, understand new learning processes, and make decisions while still allowing them to transfer these skills to other contexts by setting abilities and strategies of personal and collective management. Moreover, focusing on the beginning and end of the week provides a more global and contextualized approach to the teaching and learning process.

Finally, shared teaching puts the teachers forward as role models for their students. The students see teamwork up close, and they are then able to identify and utilize their classmates’ competencies. Therefore, the effect of modelling teamwork for students makes it clear that divergent thinking helps us solve problems and promotes innovation.

Interpretation of the Results and Conclusions

Since we have conducted a global analysis of all the results, we can state here that we have defined the requirements needed to move towards the model of a competent person as defined in JE’s mission for Horizon 2020. Similarly, the new role of the teachers in the classroom has set forth a scenario for improvement for classroom environments and an improvement in the relationship between teachers and students. This in turn aids us in the transition from teaching centres to learning centres.

This change in role of the teachers is a window of opportunity that enables students to modify their roles in the classroom to gain more autonomy, protagonism, and power in learning; it also aids them in their development of those relevant abilities and values to become ever more competent.

Therefore, we can conclude that these changes in the participants’ roles for NEI have a positive impact on the students regarding objective management and metacognition, the transfer of knowledge, and relevant thinking; this is all while maintaining good results in tests in basic competencies.

6.2. Conscious Person

Definition

Conscious people are those who are aware of the changes in themselves, in others, and in their surroundings and that have criteria to evaluate these situations.

The conscious person exhibits the following abilities, competencies and values: autocriticism, empathy, integrity, understanding of the complexity, perseverance, self-efficiency and resilience.

The expected impacts of this definition can be summarized as:

- A student who is able to learn about themselves (strengths, weaknesses, interests, etc.).
- A student who effectively manages their incomprehension, insecurity, and uncertainties.
- A student who believes that their learning at school is useful for their life.
- A student who believes that competencies can be learnt.
- A student who accepts that there are many ways of doing the same thing.
- A student who likes reading.

Main Results of the NEI Evaluation Tools

One of the conclusions of FLACSO's research includes all the results we expected to see. This conclusion brings forward the idea that learning is directly related to **individual and collective systematic work** with all available resources, prioritizing this connection to the personal talent of teachers and students. Therefore, this implies that competencies are not something that we have been given by virtue of our genetics but are things we can learn.

As a matter of fact, this model encourages the use of **multiple perspectives** by presenting open and complex situations to the students, which results in more integrated knowledge and with the need for some answers of their own to find consistent solutions. The cases presented to students do not seek an automatic use of set rules, procedures, or specific information; to the contrary, they promote working with all available information and using a number of different strategies.

The Blanquerna research group's study aims at tracking possible changes in self-perception of the students' own behaviour towards learning and personal relationships. We must highlight here some conclusions that reinforce the development of the conscious person.

One conclusion underscores a higher degree of **organizational autonomy** of the students who have taken part in this pilot experience for two years as contrasted with the comparison group.

The latter organizes their school workload around the role of the teacher; the former organizes their workload while considering their own task, which we consider to be the focus of knowledge.

As we mentioned above, there is not any statistically significant difference stemming from the mental frameworks study of the students who have undergone the pilot experience. However, some tendencies can be observed and will have to be confirmed in the future. One of them has to do with the students' self-awareness. After studying in NEI for two years, they state that they are more inclined to accept the idea that **setting personal goals** helps them feel better and be better people. This statement coincides with the features of a conscious person as according to NEI.

The students' self-awareness when considering their potential and their limitations is also reflected in the conclusions of the questionnaire that measures **perseverance and long-term objectives** carried out by Caterina Calsamiglia's group. The results show statistically significant differences between the samples from both schools. The mean value of the results of the intervention group is higher than the one for the comparison group. Further, even though the differences are not many in number, data tends to show that in terms of their interests NEI students are more persistent and they put more effort into achieving their objectives.

The report on classroom climate offers some relevant data regarding the tools used by CETEI. The results confirm that there is a higher predisposition to participation and a more satisfactory relationship between students and teachers in NEI classrooms. This is a necessary condition for the creation of mutual trust in which the students can express and **manage their incomprehension, insecurities, and uncertainty** and move forward along their path to **personal awareness**.

On a different note, the report regarding the Reading Project also shows that the students who have taken part for two years have acquired a taste for reading. We must highlight that this statement is a tendency rather than evidence; therefore, we will have to keep track of its development in the future. We must mention that the evaluation of the Reading Project was done without having access to the registry of the number of books read per student for either the intervention or the comparison

group. However, aware of this limitation, we found some data that showed the aforementioned tendency: the results of the survey show that 40.7% of the NEI students who said they had read over 5 books had actually read over 8 books.

Reflections by the Families

We gather our first remarkable fact from the external perception study of families regarding the development of their child's consciousness: 63% of the participants say they agree or strongly agree that their child's consciousness has increased. Further, most of the families positively highlight the development of emotional intelligence in their children. Parents have said, "He seems much more confident and he can make informed decisions"; "She has begun to understand how to organize her workload and priorities"; and "I see she is more involved in the reality that surrounds her and she has a stronger opinion regarding values and decisions".

Additionally, three-fourths of the participants have a positive opinion of the contents of the new report published at the end of each term since it encourages a dialogue about their children learning; this is a fact that reinforces growth. A person who is able to have an honest and sincere conversation about their weaknesses and strengths is able to as a direct consequence of having a sufficient degree of self-awareness.

Reflections by the Teachers

The data provided by the teachers for this report on NEI's impact sheds some light on the growth of the conscious person that we are describing. Increasing the time the students and teachers spend together, their new roles, and—above all—how they get to know each other better in NEI. Consequently, the teacher's ability to guide the students improves. This new reality helps the conscious person learn, since it provides an environment that favours self-awareness and the management of doubts and insecurities.

Secondly, teachers state that the students' life projects are promoted in NEI classrooms, considering the conscious person: "Working on projects focuses more on the students' life projects. We talk about more emotional and moving topics; topics that are relevant". This contributes to a higher

awareness of one's person in relation to their surroundings.

Activities (Essentials) that Promote a Conscious Person

Out of the nine essential actions that are featured in NEI, three are closely related to the conscious person: shared teaching, the Reading Project and guidance of the student.

The first idea shows the students that there are many ways to do the same thing and that this diversity enables us to understand and live more effectively in the world around us.

Secondly, the Reading Project gives students the opportunity to choose the books they want to read, making reading more pleasant and increasing the number of books they read.

Finally, we would like to discuss student guidance. In NEI, new spaces are allocated for pausing, discussing, reflecting on, giving and receiving feedback about the activities, and for talking to parents (during the report for each term), all in order to guide students towards self-awareness.

Interpretation of the Results and Conclusions

After conducting a joint analysis of all the elements that pertain to the conscious person, we can state that the bases for the students' growth as conscious individuals have been divided into three well-defined areas: the relationship of growth to oneself, to others, and to the environment. NEI provides the students with the necessary tools and spaces to move forward in this process of improving their self-awareness and to shape them into people capable of judging their immediate environment.

It is important to highlight the fact that NEI students see a direct link between learning and systemic work (both individual and collective) using the available resources, placing this connection between learning and systemic work ahead of the personal talent of teachers and students.

Our results show NEI's positive impact on the improvement of persistence, organizational autonomy, and on the capacity to set life goals in the long run. These features foster some of the abilities we wish to develop in students so that they can lead their own lives and build their own life projects. This confirms that in this educational stage we are moving forward toward the main objective of Horizon 2020.

6.3. Committed Person

Definition

A person who leads their life in such a way as to take part in the improvement and transformation of the world from both social and ecological points of view.

A committed person exhibits the following abilities, competencies and values: social abilities, integrity, relational abilities, communication, teamwork, and respect.

The expected impacts of this definition can be summarized as:

- A student who believes that they can learn more and better when working in team.
- A student who believes that learning is a collective activity.
- A student who works for and with others.
- A student who believes competencies can be learnt.
- A student who is able to have responsibilities in a group.
- A student who values being able to give their opinion(s) on readings.

Main Results of the NEI Evaluation Tools

The conclusions of the FLACSO study resulted in elements that reinforce the features related to the concept of a committed person. From analyzing the gathered data, researchers identified that NEI students have introduced a **cooperative methodology** of work into their lives which they consider having a positive impact on managing their learning. This methodology implies (among other aspects) teamwork, task assignment, and use of strategies for knowledge (mental maps, for example). The researchers observed that these students also have a positive opinion about teamwork and believe that knowledge gain is a collective activity.

There are other conclusions relating to that last point that regard how knowledge is presented, discussed and shared. By looking at these conclusions we can observe that NEI students value **working methodologies based on peer collaboration**, thereby highlighting the guiding role of the teachers. According to these students, the role of the school is to help students reach genuine perspectives on comprehension through interaction between the students and their classmates.

In the report by the Blanquerna research group which aims at identifying possible changes in the students' self-perception of their own behaviour towards learning and personal relationships, there are some indicators pointing towards the development of a committed person. These indicators are most focused toward those aspects regarding cooperative work (such as positive interdependence) and individual responsibility.

NEI students also state that the projects allow them to be more organized in terms of managing their own learning. Through cooperative work, there are **separate roles** in which each student is responsible for a set part, and then each student writes their part down on the dossier for the following follow-up. Likewise, we have also observed that in this pilot experience students state that one of their **motivations to learn** is the possibility of working in teams.

If we focus on the management of interpersonal relationships, the Blanquerna study observed a positive trend in NEI students regarding the role of **trust in their relationships with their classmates**. Further, the students state that working on projects and working in teams helps communication and generates an atmosphere of respect and an acceptance of diversity. This promotes the way to solve problems in school as a collective group activity.

The same happens in the results of the classroom climate analysis carried out by CETEL. The data on group cohesion—especially about class atmosphere and cooperation between classmates—outlines a strong sense of **co-responsibility** between teachers and students. Generation of this positive classroom climate is a result of the teachers' changed roles; however, it is also a result of a change in the students, who work to maintain it as a path toward learning more and in a better way.

The conclusions regarding classroom climate are in agreement with some of the results of the research group led by Caterina Calsamiglia. Even though the main conclusion of their report is that there are no relevant differences between the students in both schools from their results, they have still found some evidence that we are going to highlight below. In their test to measure **prosocial behaviour**, useful differences can be observed in the fact that NEI students show a lower tendency toward argument.

Lastly, there is CETEI's tool which was used to evaluate the Reading Project and which also shows some tendencies that must be verified in the future. From the expected impact on the students' commitment to **recommend and give their opinion(s) about the books** they read, we must highlight that according to the answers in the survey over half of NEI students state that once they finish their reading they give their opinion and recommend the book to other students, if appropriate. This nascent tendency is also observed in the research conclusions provided by Blanquerna, which emphasize that NEI students show a higher predisposition for reading and the subsequent recommendation of books.

Reflections by the Families

From the study on the external perception of families regarding the development of commitment of their children, we should first of all highlight that 59.7% of the participants agree or strongly agree that their child's commitment has improved. When asked to give examples, most of the comments provided by the families are related to teamwork and the values that stem from it: "She has improved her interpersonal relations with her classmates"; "He understands teamwork and he worries about his classmates"; "Teamwork has developed [commitment] since they have to trust the answers and work of the others"; and "He has empathy towards the others' situations".

Reflections by the Teachers

Teachers confirm this positive attitude towards teamwork and collaboration between classmates. Actually, they understand that the NEI model (which is based on co-teaching) make them role models for students since they see a team that is always cooperating, both inside and outside the classroom. One of the interviewed teachers stated, "We present them with an activity to work on as a team, and one of the best ways to do so is by exemplifying it with our own performance". Further, as said by one of the NEI directors, "We have a true learning community before us".

Likewise, teachers also agree and emphasize that there is an atmosphere of trust and strong bonds in NEI classrooms. The decrease of lecture-like lessons, teachers guiding the group throughout the process, and working on projects enables this classroom climate; everybody feels responsible for it and works to maintain it.

Throughout the process, and working on projects enables this classroom climate; everybody feels responsible for it and works to maintain it.

Activities (Essentials) that Promote a Conscious Person

Out of the nine essential actions that feature NEI, three are closely related to the committed person: cooperative learning, the CREA project, and the Reading Project.

Firstly, NEI has designated many resources for enabling cooperative work, from the physical spaces (flexible and adaptable) to the design of projects that encourage the use of cooperative structures in learning. This is especially true if we consider the assumption that building collective knowledge results in more relevant and meaningful learning, improves social abilities, and promotes personal growth through interactions with others.

Secondly, the CREA project also promotes these cooperative abilities. The students are grouped with students in other grades according to their interests with the aim of deciding on, designing, and producing a collective creation that results in a show for the families.

Thirdly, the Reading Project gives students the opportunity to choose the books they want to read to make reading more pleasant and increase the number of books read overall. Some tools (such as the Reading Project blog) were even made available in order to increase the interaction between reading and readers.

Interpretation of the Results and Conclusions

The introduction of the educational model promoted by NEI has changed the way we learn. There has been a break with the old model by which expositive instruction was almost the only vehicle of transmitting knowledge, and we move now to another model based on projects (which include many resources to guide teamwork).

According to the results described above, it seems that knowledge based on continuous interaction with classmates builds a stronger commitment to others, an improvement in social abilities, and greater in-class motivation in students.

Indeed, the idea that learning is better when it is a collective activity seems to have settled into students in NEI, who are integrating this new methodology into their lives by incorporating diffe-

rent roles and responsibilities into their cooperative work teams with the individual and collective co-responsibility that this implies.

Even though NEI has doubled the number of students per classroom, the results show positive indicators about the environment and the relationships between classmates and with teachers. Positive indicators also appear in changes to the students' mental framework pertaining to the importance of learning and cooperative work.

6.4. Compassionate Person

Definition

An open-minded person with regard to their surroundings, who uses their own experience and who feels moved by situations of poverty, pain, or unfairness. S/he feels angry about injustice and takes action.

The compassionate person exhibits the following abilities, competencies and values: solidarity, empathy, seeking the common good, and sensitivity.

The expected impacts of this definition can be summarized as:

- A student who is interested in the others and the environment.
- A student who looks up to Jesus as a role model.
- A student who identifies the project of the Gospel as a fair and possible ideal.
- A student who is sensitive towards the world.
- A student who is moved by pain and need in their surroundings.

Main Results of the NEI Evaluation Tools

An exhaustive revision of the conclusions reached by all the external research groups and from CETEI shows that there was not enough relevant data that provided us with information on the development of a compassionate person, which leaves us with no clear evidence regarding the impacts of this feature as defined in JE's mission (at least in this first evaluation). This displays the difficulty and complexity involved in finding the criteria or tools to measure the features included in the idea of a compassionate person. Having said that, we still must undergo some reflection as discussed below.

From the Blanquerna research group's report (which aims to identify the possible changes in self-perception of one's own behaviour regarding

learning and personal relationships), there is some evidence that could shed light on the students' degree of sensitivity towards current issues.

Since they're most relevant when striving for a better understanding of the world, when talking about the topics, activities, and experiences that are studied in school, the students emphasize those that carry **social component** related to current affairs, giving as an example the NEI's project on an NGO.

Reflections by the Families

Despite not having much objective evidence from the different evaluation tools, we do have subjective data that was gathered through a survey sent to the families. The section on personal growth with regards to compassion is the one showing the highest percentages of agreement with the provided statements. Up to 77.7% of the participants agree with the idea that their children show more sensitivity in situations of injustice now as opposed to before the introduction of NEI.

Some examples of this growing sensitivity are, "She seems very angry about the situation of refugees"; "He stands against the social injustices that appear on the news"; "She contributes to the conversations on current affairs when having lunch, issues that have a negative impact on the socially and politically less advantaged (Syria, refugees, victims of terrorist attacks, aid given to developing countries, etc.)"; or "He has chosen topics related to social injustice for two years in a row for projects at school".

Reflections by the Teachers

Among the teachers there is a generalized opinion that the NEI experience and especially the shared teaching in all the projects) provides a much stronger bond between teachers and students which increases empathy between them and their sensitivity towards others.

Teachers also have a very positive opinion on the interconnection between the students' life projects and their own life projects. The interconnectivity is through a simultaneously personal and collective exercise of analysis of themselves and the world that is carried out at the beginning and end of the day. Teachers state that the predisposition and interest in participating in this activity is higher in

NEI, as is the degree of awareness of the students regarding the disadvantaged situations of those less fortunate.

Activities (Essentials) that Promote a Compassionate Person

Out of the nine essential actions that NEI features, three are closely related to the compassionate person: the beginning and end of the day, the life project notebook, and student guidance.

At the beginning and end of the day, this important first and last part of the school day is used to create a relaxed atmosphere and to generate an easy dynamic to look at the day that is just beginning or to review the activities that have just finished. Listening to a song that carries a message, praying, or talking about a current affair from the news are some ideas for this activity; it focuses on interiority and awareness of the factors that cause poverty, inequality, and violence, through both individual and collective reflection as well as looking at our own acts and intentions from our day in the context of the community.

The life project notebook is based on that same idea. It is a personal space where students gather their experiences, feelings, and wishes. By writing down a feeling, it is better remembered and more important. This tool enables working on the students' life projects and on their spirituality.

Finally, student guidance is a main pillar in JE schools and so, therefore, of NEI. Students have two or three tutors who are in charge of their group and so have more than one adult as role model. Moreover, the flexible organization of NEI allows us to help these students whenever it is needed, which provides time for monitoring the students and encourage their well-rounded development.

Interpretation of the Results and Conclusions

The results obtained using our various tools in regards to the compassionate person and the impacts that contribute to this part of the JE mission are not enough to highlight any particular trend on whether our actions to promote compassion in our students are achieving the desired results.

Having said that, we cannot state that they are causing any negative effects, either. This report showcases the difficulty we have in finding the tools that will allow us to deal with this aspect of the ideal model of person in an objective way. How-

ever, the contributions of the families and teachers with regards to an increase in empathy and sensitivity towards situations of injustice indicate that the students are developing are features characteristic of a compassionate individual.

6.5. Creative Person

Definition

A person who can find new answers and ideas and who creates imaginary scenarios resulting from disruptive processes.

The creative person exhibits the following abilities, competencies and values: innovation, flexibility, curiosity, assertiveness, and confidence.

The expected impacts of this definition can be summarized as:

- A student who learns to build knowledge collectively.
- A student who can use divergent thinking.
- A student who accepts that there are many ways of doing the same thing.
- A student who can find creative solutions to a given need.
- A student who believes that including somebody else's thought in the creative process is valuable.

Main Results of the NEI Evaluation Tools

We have results provided by the Blanquerna research group—who conducted the Torrance Test of Creative Thinking to measure this aspect of JE's mission—that relate to measuring creativity. The test they administered includes two subtests (figurative expression and verbal tasks) and provides us with information on four dimensions in each subtest: originality, fluency, flexibility, and elaboration. The results are presented as percentiles, with 50 the number that refers to the reference population's mean score.

The main conclusions that they reached is that the means between the intervention and comparison groups are statistically significant in a 95% confidence interval in all the evaluated **degrees of creativity: figurative, verbal, and total**. This means that NEI students obtain higher results on the measurements included in the test that relate to creativity.

This difference can be observed in the four dimensions of the test regarding verbal creativity.

Similar results are obtained in terms of figurative creativity except for in the dimension related to elaboration, where results point in the opposite direction. The same happens with the results showing percentiles over 80 and under 50. The percentage of NEI students who place **over the 80th percentile is higher than before, and the ones who are place under the 50th percentile are less common.**

When compared to the general Spanish population, the data shows similar results. For the verbal creativity test, our students' results are way **above the mean** in all four dimensions, both in the intervention and in the comparison group. In regard to figurative creativity, the students in the NEI group obtained results above the 50th percentile in three out of the four dimensions. It is in the elaboration dimension that shows results under the Spanish mean.

From another report by Blanquerna that aims at identifying possible changes in self-perception of the students' own behaviour towards learning and interpersonal relationships, we can gather evidence that supports these results. From the answers in the focus groups where they were asked about the capacity to approach a project or learning from different perspectives, NEI students state that it is mainly through group projects that they feel they develop their **creativity and divergent thinking.**

Some conclusions from the study conducted by FLACSO relate to the way in which projects have promoted the use of spaces in order to help creativity flourish. Placing the students at the centre of their own learning (as opposed to the teacher in the centre) transforms their roles and empowers them. Consequently, the students are more **autonomous** and have a higher capacity to use divergent and creative thinking for their suggested challenges. The methodology of cooperative work introduced in NEI calls for multiple strategies and for solutions designed by the students in order to help develop creativity.

Reflections by the Families

From studying the external perception of families with regard to the development of creativity in their children, we should first highlight that 65.7% of the participants agree or strongly agree that

their child is more creative. The students show an increased ability to look for alternative solutions to problems.

However, this is also the feature of JE's mission with the highest percentage of families who disagree with the fact that NEI is improving creativity, and 14.4% of parents do not consider their children to be more creative than before starting NEI.

Some examples from parents to exemplify this development in creativity are highlighted as follows: "He is able to look for different solutions to an everyday problem"; "Art is developed with the projects"; "She has always been creative, but lately she is surprising me because she is able to break the mould"; and "My daughter is part of an adapted learning plan and NEI has allowed her to develop her creativity in terms of how to use her capacities without underestimating them".

Reflections by the Teachers

The contributions from the teachers do not present many direct references to the ideal creative person, except for some notes on the opportunities provided by NEI to bring innovative solutions to similar situations. In this regard, the teachers do mention that the work on projects—with special emphasis on the CREA project—has created relevant opportunities to stimulate the students' creative responses.

Activities (Essentials) that Promote a Creative Person

Out of the nine essential actions which feature NEI, there are three that are closely related to idea of a creative person: the CREA project, meaningful and competence-based learning, and cooperative learning.

Firstly, the CREA project allows students to choose their areas of interest and helps improve their self-awareness and capacity to work and create at their own discretion. They have a great deal of autonomy in their chosen project in terms of its development (planning, elaboration, and presentation).

NEI has also allocated many resources to enable cooperative work, from the physical spaces—which are flexible and adaptable—to the design of projects that encourage the use of cooperative structures in learning. It is by accessing these structures that the students become the centre of their own learning and they are given autonomy

for creating their own projects and making creative final products.

Interpretation of the Results and Conclusions

NEI has introduced areas to boost students' creativity and has generated situations where disruptive thinking is required. The methodology we used asks for answers to given questions that must be discovered by means of creative thinking, and the suggested answer usually includes others' opinions rather than simply isolated work.

The results obtained via the different measurement tools for the NEI students' creative thinking growth confirm that working on projects in general (and CREA, in particular) stimulates the development of divergent thinking, builds collective thinking skills, and fosters the ability and desire to search for creative solutions.

7. Results of NEI's First Impact Evaluation

We have now analysed the results on student impact that we gathered from a variety of evaluation tools for each of the five C's in the Pilot Experience in the New Intermediate Stage. This last section includes the final thoughts we have drawn up after blending all the data and evaluation results together.

Since this report is unique, it has resulted in many ideas, perceptions, and considerations of a diverse nature. We have decided to organize these in the following three consecutive sections: our conclusions, recommendations, and prospective and future research questions.

7.1. Conclusions

By way of summary, we are now going to list, the ten most important conclusions that can be drawn from all these studies. This is a global approach based on all the evaluation actions conducted by the four groups, which includes elements observed in each of the C's as well as their relationships and any established correlations.

1. Opportunity, strength and limitation of the first evaluation of NEI. Opportunity, since this exercise shows JE's commitment to educational innovation. We consider evaluation an essential part of the innovative transformations that are

being introduced and that are destined to contrast the impact they generate in the whole educational sphere (values, competencies, abilities, and curricular contents) of our students; this has to let them fully develop as individuals. Strength, because evaluation should be the true motivating force of educational improvement since it provides information on the changes that should be reinforced and the ones that do not work and should therefore be modified. And limitations, because in this first stage solid evidence couldn't be found; the results were only an approximation that let us measure the tools and advance in solidifying a culture of evaluation. Therefore, the importance that this impact evaluation has must be highlighted here, since it represents in and of itself an important innovation in the educational scene—both internationally and nationally—and it leads the way toward consolidating the current impulse of educational innovation.

2. Methodological innovation in the approach and materialization of evaluation.

In order to carry out this exercise, we have designed a logical model derived from the study of transformations in the social field and we have adapted it to NEI. This model for change has allowed us to design the pilot experience and at the same time to set the basis for its subsequent evaluation. Through the use of this instrument we have provided ourselves with a global methodology for designing, planning, observing, and evaluating transformations and innovations that allows us to move forward toward achieving our goal and improvement of our educational proposal. The progressive implementation of innovations in our schools presents us with the opportunity to conduct a quasi-experimental study, and to have both an intervention group and a comparison group. This provides us with a stronger methodology and more reliable results. Finally, the fact that this evaluation process is organized in two different phases—in the first, the process evaluation; in the second, the impact evaluation—reaffirms that it will be used as a tool for permanent improvement, especially in a field with little experience in the use of these instruments.

3. Direct impact on our model of person according to age. The process of adapting the educational Mission of JE (by means of the competent, conscious, committed, compassionate, and creati-

ve person) has traced a line that joins the actions of educational innovation introduced and the results in the students in terms of impact. This adaptation has been carried out through logical methods, MIRARI, and through the definition of seventy-five impacts that will be noticeable by the end of the stage. This is a very important advance in terms of the design, follow-up, improvement, and evaluation of the innovations introduced in the schools. We must keep on working towards a stronger connection and spreading it to all of the C's, but certainly the path we have begun upon improves the possibility of redesigning the whole student-centred process of teaching and learning and the impact we wish to produce on the students after they have completed a certain stage.

4. *The importance of placing the student at the centre of the learning and teaching process.* Data shows that the decentralization of the teacher's role in NEI has empowered students and has been the driving force that has moved the other elements toward success in the innovation we analysed. In this regard, the evidence for the growing autonomy of the students, the fact that the students and the teachers (and the students themselves) are closely bound together, the evidence that improvement of the classroom environment benefits education, and confirmation of the positive effects that cooperative work has on students all represent a highly significant advance in NEI's innovation. They also signal the strategic importance of placing the student at the centre of the process. The conclusions reached by our analysis and interpretation of the results of the committed person are a good example of this.

5. *The change must be disruptive and yet still coherent in terms of its tools.* The new approach to the teacher's role has also proved to be a positive change since it has happened alongside the new models of pedagogy, organization, and of the physical spaces. These new models have provided us with more tools and spaces to serve our goal. Elements such as content prioritization, curricular revision, shared teaching, and large groups (among other features) have enabled us to introduce new activities and provide different timings for the transforming educational project we introduced. In this sense, the multiplying effect that the different tools and observations have shown us seems

to be proven here, according to the conclusions regarding the conscious person.

6. *Academic results are held to high standards.* The report underscores the good academic results in NEI even though the methodology, organization, and roles in the education process have undergone a deep transformation. We would like to highlight that these positive academic results happen alongside fundamental elements for the development of the students' life projects and all necessary abilities, competencies, and values for individuals living in the 21st century. We must also highlight that according to the aim of Horizon 2020 and the theory of change we considered when designing NEI, there has never been the intention of consciously improving academic scores since these were already high. The aim—which has clearly been achieved—was to maintain those academic levels while moving towards setting new mental frameworks, learning, and behaviours in the students at the end of this stage that will most likely have effects on the individuals we want to teach in the intermediate future and in the long run.

7. *Positive results in classroom environments, creativity, and the importance of cooperative work.* The best results that derived from all the tools used in this evaluation are related to classroom environments, students' creativity, and the importance of cooperative work. Even though it could seem otherwise, the classroom environment improved despite the increased number of students. This is an incredibly significant change for education and learning. Finding a way to improve creativity and the students' mental frameworks regarding teamwork becomes an important step in consolidating the innovations we have introduced. These results shed light on some of the objectives defined when we designed NEI's disruptive innovation, and they also confirm many of the hypotheses on which those objectives were built. We will have to keep an eye on the evolution of these indicators in future evaluations; this is especially in regard to those indicators related to the creative person, which have quite significant results.

8. *Teachers and families support the observed tendencies.* In terms of the development of the students' personal growth, we achieved a positive assessment from the data gathered from NEI

teachers and parents. Moreover, the life and professional projects of the educators have also undergone changes in very positive ways. This compels them move forward toward becoming better role models. This is in spite of the fact that there are some emotional and personal losses, which are common in any environment where the relationships between people have become closer and more intense.

9. *We are at a stage where we measure innovation.* Impact evaluation of the students in the NEI pilot experience has brought us very important information to advance spreading NEI to the rest of schools in the JE network and the world. While considering this, we should take into account some warning indicators that have appeared. The most important ones are some emotional exhaustion in the teachers, the sustainability of the model in terms of resources, and how to improve the involvement of families. And at last but not least, we need to find more and better tools to improve evaluation of these seventy-five impacts that we defined and linked to NEI's educational mission (especially those related to the compassionate person).

10. *We have to keep moving forward to obtain future evidence.* Some of the hypotheses we had when starting our disruptive innovation in the NEI pilot experience have been confirmed, either as conclusions or as patterns. These confirmations have been determining steps in the process and are not widely seen in education, which encourages us to continue working to improve the experience and move forward with more capacity, more experience, and more knowledge towards a second impact evaluation of NEI in June of 2018. By then we will have the first cohort that has completed all four years in NEI. This has always been the basis on which we have carried out evaluation. Even though we do not expect great differences in the impacts we analyse, we must state that this has given us strength to face a second stage and to move towards establishing an evaluation culture based on our current and any future evidence and educational innovations.

7.2. Recommendations

In this section, we gather and organize the recommendations from the research groups and participants after their evaluations. To facilitate understanding,

we group them in two sections: those referring to NEI's development, and those related to scheduled actions of impact evaluation in the future. In each section, we are going to organize the recommendations in terms of their source, and we also add our recommendations at the end of each one that have been drawn from the data blending (the subsections on general recommendations).

7.2.1. Recommendations Regarding the NEI Programme

This section includes the recommendations referring to the NEI programme and that come from the reports and actions we conducted. We must note that process evaluation already generated a number of recommendations regarding NEI's introduction to better its development.

Report from the satisfaction survey given to families

- From the information gathered, we can infer that we should revise the tool used to obtain information about the jobs, hobbies, and personal interests of parents; this is because they can be useful participants in NEI projects or any other activity included in the teaching and learning process. Therefore, from the families' point of view their collaboration could be increased.

Report on NEI's impact on teachers

- Within the focus groups and interviews, we observed teachers' emotional exhaustion that resulted from the now more-demanding bond established with the students. We must work on that in order to look for solutions that can be used as an emotional support for teachers so that their new teaching role brings a lower level of exhaustion, naturally without negatively affecting the basis on which NEI is built.

General recommendations

- We recommend analysing the experience in terms of the time management of NEI teachers while introducing measures related to a more efficient use of their time and to their own experiences.

- Revise the initial and continuous training offered to NEI teachers, making sure they incorporate the important elements that were observed during the impact evaluation to their duties and professional tasks: the collaboration of the families, emotional support, time management, and proper use of time.

7.2.2. Recommendations Regarding the Evaluation Process

In this section, we are going to gather the recommendations (both those in general and relating to each report) in regards to process evaluation, placing special emphasis on those evaluations yet to come. In order to do so, the recommendations are grouped into five points: (A) reliability of records; (B) improvement or suitability of the tools; (C) the need to look closely into a specific area; (D) future potential for analysis; and (E) the need to look for new tools and approaches to further develop the impacts of the educational mission.

A. On the Reliability of Records

During the evaluation, we have identified a general weakness in the tools that have to gather the records of any activity and relevant results in the teaching and learning process designed for NEI. This is a crucial point, since without a record-keeping system of the activities it becomes very hard to then gather data and conduct an impact evaluation.

Report on classroom atmosphere

- In order to have evidence on our hypothesis of time-based student expulsion from class, we recommend creating a record on their recurrence, both in NEI classrooms (the intervention group) and non-NEI classrooms (the comparison group). When constructing this report, we didn't have access to the data about the number or rate of expulsions from the classroom (if any), which would have been very helpful to corroborate some assumptions on this essential aspect since we could also consider this as an indicator of other things.

Report on the Reading Project

- To be able to deeply evaluate in the future those activities that are as important as the Reading Project, it would be essential to have a more manageable and precise record of the books that the students read from the classroom library and the use of the provided blog. With that, we could see the tendencies regarding the reading habits of the students during NEI. So we would recommend making sure the records of activity for the reading project are clear and accurate.

Report from the satisfaction survey given to families

- An important obstacle has emerged in relation to the measurement of familial collaboration in activities directly linked to NEI's teaching and learning

process (not only informative). Given the importance of familial collaboration, we recommend establishing and keeping a specific and homogeneous record of this participation up-to-date in all NEI centres.

General recommendations

- Establishing the necessary records related to NEI essential activities and the expected results and impacts. Therefore, in future evaluations, we would have the relevant data and activities.

B. On the Improvement or Suitability of the Tool

Report from the satisfaction survey given to families

- The tool used for this report had a highly subjective component, since these were evaluations from parents regarding their own children. Even though it is a highly relevant source of information for the evaluation that we are carrying out, we should continue working towards future actions which would allow us to obtain the information that we need and that can simultaneously provide us with more objective and measurable evidence. This new tool would also have to consider including the families' degree of satisfaction in the comparison group and therefore enable comparison with the families in the experimental group.

Report on MSLQ

- In order to avoid any possible external factors that could affect the results and to make sure the conditions are as similar as possible between all the analysed populations, we would have to make the questionnaire available to all groups simultaneously or at similar moments. We would especially have to avoid doing so at the beginning and end of the school year, when emotional elements would probably have a higher impact on the results. This last recommendation on the most suitable moment to conduct the tests on the students is also relevant to other tests that have been administered (please refer to the report and tests done by FLACSO).

Report of the research group led by Caterina Calsamiglia

- According to this research group, we need to look closely at and improve the interesting tools that they have introduced in order to obtain the more accurate impacts that we seek.

General recommendations

- We recommend including what we call "pre-tests" in our impact evaluation. These preliminary

tests aim at establishing the baseline of knowledge and outlining the mental frameworks, learning, and general behaviour of the groups or cohorts that are to be analysed before NEI begins in order to clearly identify their evolution.

- In the interest of making steps towards evaluation, we recommend developing new tools to measure the impacts included in the MIRARI and reviewing the suitability of those used in this first evaluation.

C. On the Need to Look Closely into a Specific Area

Report on classroom atmosphere

- In a future impact evaluation, we will need a wider and more detailed study to understand how the modifications applied to NEI affect those aspects related to classroom atmosphere. Therefore, despite noticing some correlation between both elements, we are not in a position to extrapolate the different causalities or the direction this is taking.

Report from the Blanquerna research group

- Given the fact that the analysis of disaggregated data also shows differences between the A and B groups of Secondary (in the comparison group) and E (in the intervention group) in NEI, we consider it fundamental to widen the sample size to confirm the results and also study the NEI group when it has followed this model throughout its four years. We also recommend doing a pretest.

Report on basic competencies

- Analysing more academic years will upgrade the results and the possibilities for analysis, which will in turn result in more and better conclusions and tendencies. In this report, only one year out of the four that were analysed corresponds to an entire academic year in NEI. Therefore, widening this base is essential to get a broader understanding of the progress in the basic competencies in this pilot experience.

Report on the Reading Project

- We should undertake a more specific analysis regarding the motivations for reading in Primary and Secondary students to determine if we must take any specific actions. From the data gathered in our survey, we can identify two blocks of answers that correspond to the educational moments of the students (Primary and Secondary). However, it is a first approximation; we need to verify it with tools

especially designed for that purpose in future evaluations. With this information we could respond to one of the motivations that brought us to design this innovation, which is the students' lack of interest in reading when they move from Primary to Secondary.

Report from the research group led by Caterina Calsamiglia

- According to this research group, it is very important to continue working on the approaches that we have already set forth and to observe future results from the tests (such as EEGS) that will be introduced in the coming months.

D. On Future Potential for Analysis

Report on academic achievement and repeating students

- The creation of SAX (the Academic Office of the Network) brings about very important possibilities for future analysis that are not exclusive to NEI. Easy access to massive amounts of data on the students' academic achievements and their homogeneity is an opportunity to conduct very important analyses and studies that should be used in the future.

- Even though we haven't been able to identify any clear behaviour tendencies or patterns in the academic results (within a group and between different groups), we recommend continuing to carry out this type of analysis in the following years to obtain highly valuable and informative time series of data.

Report on basic competencies

- This can prove very useful as a source of information, both for evaluating pilot experiences as well as for keeping track of the results of any school's basic competencies. We should therefore continue gathering and standardizing these results in the following years, especially to identify possible changes in the schools once they have started a pilot experience.

E. On the Need to Look for New Tools and Approaches to Develop the Impacts of the Educational Mission

Report on MSLQ

- We must revise MSLQ thoroughly to determine if it is the most suitable tool to measure the learning strategies and motivation of NEI students. This questionnaire—even though it is consolidated and highly reliable—is thought to evaluate students

with consideration to traditional learning methodologies. If we want to measure these behaviours within the educational innovation framework that is taking place, we probably need a new tool that gathers these different elements together.

- We recommend looking for available alternatives (or creating new ones) that evaluate learning and motivation strategies which better fit the activities and dynamics of NEI students.

Report of the research group lead by Caterina Calsamiglia

- According to the suggestions from this research group, we would recommend improving and polishing the tools and approaches used in this evaluation. These tools can also help measure some of the impacts that are included in NEI's MIRARI, which were not measured in this first evaluation.

General recommendations

- Both teachers and students are the centre of the teaching and learning process of NEI and consequently they should also participate in the evaluation process of their impact in a more straightforward way. In this regard, we recommend considering more direct participation from them in the design of tools for measuring impact; we should also consider making them aware of the evaluation results to introduce the suggested improvements.

- We must also make NEI teachers aware of the need to have specific records on the activities with regard to the NEI essentials that allows us to check on and analyse them later on. Likewise, we have to continue working on other methodological tools to incorporate their points of view in the evaluation processes. We must make an effort so that the teachers are familiar with the processes, that they don't see them just as something that happens at the end of a specific period, and that the teachers become an essential source for obtaining relevant information towards tracking the appropriate development of innovation.

- We recommend continuing to develop the MIRARI as tools for the design, planning, and evaluation of the teaching and learning process. It is also essential that NEI teachers are familiar with this tool and that the Directors use it as a tool for improvement according to the different evaluations.

- Having a permanent management system of NEI's evaluation process in place (and eventually of the other pilot experiences) within Jesuïtes Educa-

ció is the best guarantee for establishing systems for recording and gathering accurate and precise data, which then allows for future analysis. This is currently in the hands of CETEL.

- Maintaining the participation of external research groups, which offer their expertise and constitute an extremely valuable approach to evaluation.

- We must continue working to develop measurement actions and impact evaluations that are linked to the compassionate and creative person, about which we obtained little information in this evaluation. All the efforts that can be utilized to provide evidence regarding the educational mission of this institution will help improve and develop the evidence in terms of the impact on the students.

7.3. Our Forecast and Future Research Questions

This last section is devoted to presenting the questions that have been posed throughout this process of design, data gathering, and analysis and that go beyond the object of this report. With this list, we want to write down and address the research community and encourage new lines of future research. Some of these questions may even be unanswerable; however, we believe that it is important to list them out and to have them as a final goal which we should strive to get as close to as possible.

1. How can we involve teachers more directly in the impact evaluation process of an educational innovation experience?

2. How can we make the students part of the design, data gathering, and conclusions of the evaluation? How do we triangulate a new process and move forward together while reflecting on the results of the evaluation?

3. How can we involve the agents of the educational community in continuous improvement and evaluation?

4. What kind of initial and continuous training best suits the educational model we are introducing?

5. What is the contribution of the teachers to shared teaching apart from their areas of expertise?

6. Which strategies for guiding students are regarded most positively? How are the teachers and students incorporating this guidance?

7. How can we improve time management for the teachers so that they feel released from the heavy workload?

8. How can we isolate the impact of our educational innovation from other external factors on the students?

9. How can we move along established baselines and conduct pretests once the innovation is already underway?

10. What tools are suitable for measuring impacts related to aspects of interiority, spirituality, and/or evangelization in the students?

11. What factors can be changed to adapt NEI to different contexts and realities?

12. How can we trace the impacts included in JE's mission on the students five, ten, or even twenty years after they have finished this innovative educational stage?

13. How can we radically rethink the curriculum for the person living in the 21st century?



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