

**July 15th 2014**

**Innova Schools (PERU)**

**Monitoring Note 2**

Submitted for Strand 3 of the Innovative Learning Environments Project (ILE)

The opinions expressed and arguments employed herein are solely those of the authors and do not necessarily reflect the official views of the OECD or of its member countries.

## Monitoring Note 2

In Innova Schools (IS) Monitoring note two we are offering two types of information: a summary of some relevant aspects about the Innova schools strategy, presented before on Monitoring note 1. This section contains information about our Aims, leadership and partners, strategies and activities and some notes about how is communication and feedback assured.

The second part of this note contains the answer to the evaluation questions that is more at the core of monitoring note two: evidence of effectiveness and efficiency, success factors, tension and impediments. In the context of this second part, we offer a summary of the Theory of Change and the Innova Schools Effectiveness Framework. Both documents have been recently developed as a consequence of the evaluation of the system, and the way Innova Schools is functioning in the context of the implementation of the strategy as a whole. Finally and towards the end of this note we elaborate some conclusions from the information provided in MN2.

### 1. Aims

Innova Schools (IS) has under its vision to offer quality education at a reasonable cost. Our aim is to offer an option that is excellent, scalable and affordable to help narrow the gap of the problem of quality education in Peru. As a private educational system, we are resolved to overcome the learning gap, with initiatives and interventions that have innovation at the core.

#### *The Peruvian educational context and the problem of Quality education in Peru*

The educational system in Peru has been able to overcome issues related to access to education. Elementary Education has 94% of national coverage, while Secondary Education has improved from 68% in 2001, to 77% in 2009. However, the problem of quality education still pertains.

*The problem of quality of education in Peru* can be evidenced in the results of Peruvian national assessments showing that students are underachieving in mathematics and reading comprehension. The *Evaluación Censal de Estudiantes (ECE)* is a nationwide assessment for second grade students on Mathematics and Reading Comprehension, applied on yearly bases. The following tables show the results of *Evaluación censal 2013*.

Figure1: Performance in Mathematics and Reading Comprehension ECE 2012 and 2013

RESULTS IN READING COMPREHENSION			
Levels of achievement	ECE 2012 %	ECE 2013 %	Difference %
On level	30,9	33,0	2,1*
In process	49,3	51,3	2,0*
At initial stage	19,8	15,8	-4,0*

RESULTS IN MATHEMATICS			
Levels of achievement	ECE 2012 %	ECE 2013 %	Difference %
On level	12,8	16,8	4,1*
In process	38,2	32,3	-5,9*
At initial stage	49,0	50,9	1,8*

Moreover, the results in international assessments also prove that students' performance in Peru is a critical issue. Peruvian results in SERCE 2006 and PISA 2009 are in every subject or aspect of the evaluations, below average. In addition to this, according to the results of the PISA 2012 assessment, Peru is in the 65<sup>th</sup> position of the PISA table, out of the 65 countries participating in this assessment. Peru came down three positions in 2012.

Along with the problem of quality education, the economic growth in Peru has caused *Peruvian families to migrate from public to private education* in an attempt to look for a better education for their children. In Lima, just to mention an example of this migration, 43% of schools are private. Nonetheless, *the alternatives of private education at low cost in Peru lack of standards of quality* from the infrastructure up to the pedagogic model itself. The following chart offers an overview of the number of private and public educational institutions in Peru according to recent data from the Ministry of Education (2013).

Figure2: Distribution of Public and Private Schools in Peru  
SOURCE: EDUDATOS



As can be observed and understood from the information presented above, rather than *learning that needs to be changed*, Innova Schools as a system, is focused on a *context to be changed*, more specifically on the possibility to impact in education at the national level offering quality education to a particular segment: emerging middle class families..

The educational service in Innova Schools is offered to students from 3 years old (pre-schoolers) to 17 years old, eleventh grade students<sup>1</sup>. Our students come from “emerging middle class” families, where a family income is somewhere around 900 dollars per month. As mentioned, in MN1, Innova Schools (IS) is determined to offer an option that is excellent, scalable and affordable and help to narrow the gap of the problem of quality education. As a private educational system, we are resolved to overcome the learning gap, with initiatives

<sup>1</sup> Eleventh grade is the last year of secondary school in Peru.

and interventions that have innovation at the core, with the emerging middle class families as the main target.

To perform its vision, IS started as a full-fledged company in 2010 with a carefully designed business plan including the construction of a nationwide network of 70 schools that will serve over 70,000 students by 2020. At the present moment, we have 22 schools, 18 in the peripheral areas of the capital city of Lima, and 4 in the provinces. IS is currently attending a population of approximately 7,250 teachers, and 13,200 students.

*The Innova Schools’ Learner*

In this section we describe, in the context of the families being targeted, who is the Innova schools learner in terms of their strengths and educational needs.

The Innova Schools’ Learner is at the center of both our pedagogical core and our organization. We are determined to help each and every one of our students to achieve all what they need to be successful in life. We believe success in life is a combination of being able to meet the demands the 21<sup>st</sup> century, and to act in an ethical way, which means being committed to the common good of Peruvian society.

We are determined to help our students to be successful in a world we are not a hundred per cent certain as of how is it going to be ten years from now; we understand though that whatever their context in the future will be , our students will always be demanded to continue to learn, to be lifelong learners. We have summarized in the Innova Promise what we want our students to achieve by the end of their school life. The Innova Promise includes four components:

1. *We contribute to develop a leadership based in human values:* We teach our students to be engaged in their communities and to be respectful about other people rights. They will become leaders in their social and professional lives.
2. *We help our students to be successful in life:* They develop all the skills and competencies they need to be successful in the real world. In all aspect of their lives (their higher education, their professional life and their personal life) our students are self-confidente, work in a collaborative way and show creativity and critical thinking.
3. *We meet international standards:* We help our students to build the knowledge and competencies they will need for the 21<sup>st</sup> Century world and country.
4. *We promote lifelong learning:* We help our students to both learn during their school lives and how to learn during their whole lives. They become responsible of their own learning and have the skills they need to learn by themselves.

*Developing 21st century skills*

Following the ideas of the 8 key competences for lifelong learning IS has a student learning profile that signals what are the competences that our students have at the end of their school life. To fulfill our promise we are committed to developing these 10 core competences in our students:

Effective communication	Our students gain the ability to express and interpret concepts, thoughts, feelings, facts and opinions orally and in written form using their mother tongue.
Effective communication in English.	Our students gain the ability to express and interpret concepts, thoughts, feelings, facts and opinions orally and in written form, specifically in the English language.

Mathematical competence.	Our students gain the ability to solve mathematical content in different life contexts – using strategies, reasoning and applying knowledge.
Scientific thought.	Our students gain the ability to refer to domains of science and technology, understand theories that explain the interactions of nature and humans, and develop an understanding of themselves as citizens of the planet.
Technology users	Our students gain the ability and confidence to use all technologies available to them. They are comfortable accessing information and communicating through digital forms.
Leadership, entrepreneurship, & initiative.	Our students gain the ability to transform ideas into action. They develop creativity, comfort with risk, and ability to innovate. They contribute to society.
Autonomy.	Our students gain the ability to work independently, drive vision into existence, and make sound decisions on their own.
Collaboration.	Our students gain the ability to work in teams, effectively negotiate with each other, and work together to achieve shared goals.
Creative expression.	Our students gain the ability to develop creative ideas, shape engaging experiences, and develop their emotions through various forms of media and expression, such as music, arts and literature.
Social and civic awareness.	Our students gain the ability to participate effectively and constructively in social and professional life. They understand the norms and customs of society, and how they fit personally, interpersonally and interculturally.

### *Peruvian society.*

We have also come to the understanding that our students have some particular strengths and needs that come from the specific context they socialized and grew up and that we must take into account in order to meet those needs and use their strengths as opportunities to learn. The list below summarizes some of the characteristics of the Innova Schools learners and their contexts:

#### *Strengths*

- Our students’ families come from the “emerging middle class” in Peru. One of the most important characteristics of this social group is the fact that families have had to struggle hard to increase their incomes. Most of our parents work independently in small businesses of their own.
- Most parents belong to the first or second generation of people that moved from other Peruvian provinces to Lima. Our children come with a diverse, deep and rich cultural background.
- Context demands our students to develop their autonomy faster than children who belong to other social groups.

#### *Needs*

- Most of the children we admit in Innova each year come from low-quality public or private schools and they may have problems to achieve to an expected level in Innova Schools.
- An important number of our students come from single-parent families and may have an unstable emotional environment at home.
- Our students usually spend many hours without necessarily being supervised by an adult person.
- Our students are exposed to vulnerable contexts. In the areas most of our schools are located, social problems, such as crime or drug use in teenagers, have been increasing in the past few years.

## 2. Leadership and partners

Innova Schools has been creating some important partnerships with different local and international organizations. The table below shows the most important partners and the different projects or initiatives we have been working on with them.

Intercorp	<p>Innova Schools belongs to Interbank Corporation, one of the most important corporations in Peru. Intercorp is trying to provide high quality services to Peruvian middle class families, such as banking, insurances, retail, education, etc.</p> <p>Innova Schools works closely and receives consultancy services from different organizations within Intercorp. We count with the support for professional development from UCIC [Universidad Cooperativa de Intercorp] which is the Corporate University of the Interbank Corporation.</p>
Ministry of Education	<p><i>At the educational system level</i>, Jorge Yzusqui our CEO was a member of the National Council of Education [Consejo Nacional de Educación-CNE]. The president of Interbank Corporation, Ramón Barua, has recently been named as member of this National Council of Education.</p> <p>We have come to the understanding that a strong relationship with the Ministry of Education is a key success factor for Innova Schools. We are now trying to find different ways of working together with the Ministry and share with them all the good practices Innova Schools has been implementing and vice-versa.</p>
Ontario Principals' Council	The Ontario Principals' Council (OPC) is delivering the International School Leadership Program for Innova Schools' Principals. This program is focused on building instructional leadership capacities in our principals.
IDEO	IDEO is an innovation international consultant firm with which we have developed some of our innovative strategies in terms of use of space, pedagogy, construction model, use of technology and others. For 2014, we will work with IDEO in developing a scalable teacher training and a capacity building model.
Pontificia Universidad Católica del Perú	We have an agreement of cooperation with PUCP [Pontificia Universidad Católica del Perú] from which we benefit from all the educational technological innovations that the university develops. This university is also delivering a teacher training program for mathematics teaching, focused on improving subject knowledge in these teachers.
Universidad Peruana Cayetano Heredia	This university is delivering a teacher training program for science teaching. This program is also focused on improving subject knowledge in our science teachers.

### 3. Strategies and activities

#### *A standard-based curriculum*

The IS curriculum contains the Peruvian mandated curriculum and includes standards from international frameworks like Australia, Canada, and other countries in the region: Chile and Colombia. Another difference with the Peruvian mandated curriculum is that we have developed standards for each school year in the core curriculum areas: Language Arts, Mathematics, English as a Second Language, and Science. We have also identified “power standards” per grade to help the teachers focus on the critical and essential standards: those that will allow students to build further knowledge as they move on from one school year to another. These standards are also provided to the Area of Quality Assessment in back office and are used to elaborate the standardized tests by which we assess the system in the component of Teaching and Learning.

Inspired in the Understanding by Design (UbD) framework, in 2014 we started a curriculum innovation that implied establishing for each grade, in the core courses<sup>2</sup>, the expected learning standards. This was done to clarify, for every main pedagogical actor at Innova, what the learning expectations in these core areas for each grade were. The UbD framework offers an instructional design model designed under the following premise: design curriculum “backwards” from two ends, understanding and learning transfer.

Drawing also from the concept of “learning outcomes” we have done the instructional design of the core courses in our curriculum establishing not only standards for each grade, but also the learning outcomes aligned to these grade standards. The learning outcomes have been established for each school term.<sup>3</sup> The following are some interesting definitions of learning outcomes that have been very useful facing this instructional design innovation:

- Learning outcomes are statements of what is expected that the student will be able to do as a result of learning the activity. (Jenkins and Unwin, 2001)
- Learning outcomes are an explicit description of what a learner should know, understand and be able to do as a result of learning. (Bingham, 1999)
- Learning outcomes are statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of learning. (ECTS Users' Guide, 2005)
- A learning outcome is a statement of what a learner is expected to know, understand and be able to do at the end of a period of learning and of how that learning is to be demonstrated”. (Moon, 2002).

#### *The TRC*

At IS, we have moved from an instructional design that was not presenting clearly enough the learning expectations to all the pedagogic actors, to an instructional design that expresses fairly clearly: what the learning standards for each school year are, what the

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<sup>2</sup> At Innova Schools we have divided the courses into two groups: (i) the core courses: Mathematics, Language arts, English as a Second Language and science and (ii) enrichment courses: Social Studies, Arts, Physical education and religion.

<sup>3</sup> A school year at IS includes four terms that approximately last three months.

expected learning outcomes for each school term in all core courses are, and how students are to demonstrate their learning, either through products or formal assessment. Therefore, a product based assessment and a more formal assessment based on End of Unit Tests, and End of Term Tests, have also been established for the four core courses: Mathematics; language Arts, Science and English as a Second Language.

Based on these standards, lessons have been revised, refined, and in some cases re-elaborated in the IS repository of lessons: the Teacher Resource center (TRC)

The TRC is the online home for the Innova learning curriculum lessons. It contains a comprehensive set of quality lessons aligned to the grade standards and term learning outcomes, for each subject across every grade. These lesson plans are authored by Innova, and are specific to the learning model. The lesson plans, and the aggregation of them in one central resource, allows Innova to distribute quality teaching resources to every teacher. It simplifies the process of lesson planning and creates standard-based lessons across the Innova Schools network; with the TRC Innova wishes also to create a community of practice where teachers can build on the initial materials and upload and share new resources.

### *The Innova Schools Learning and Teaching model*

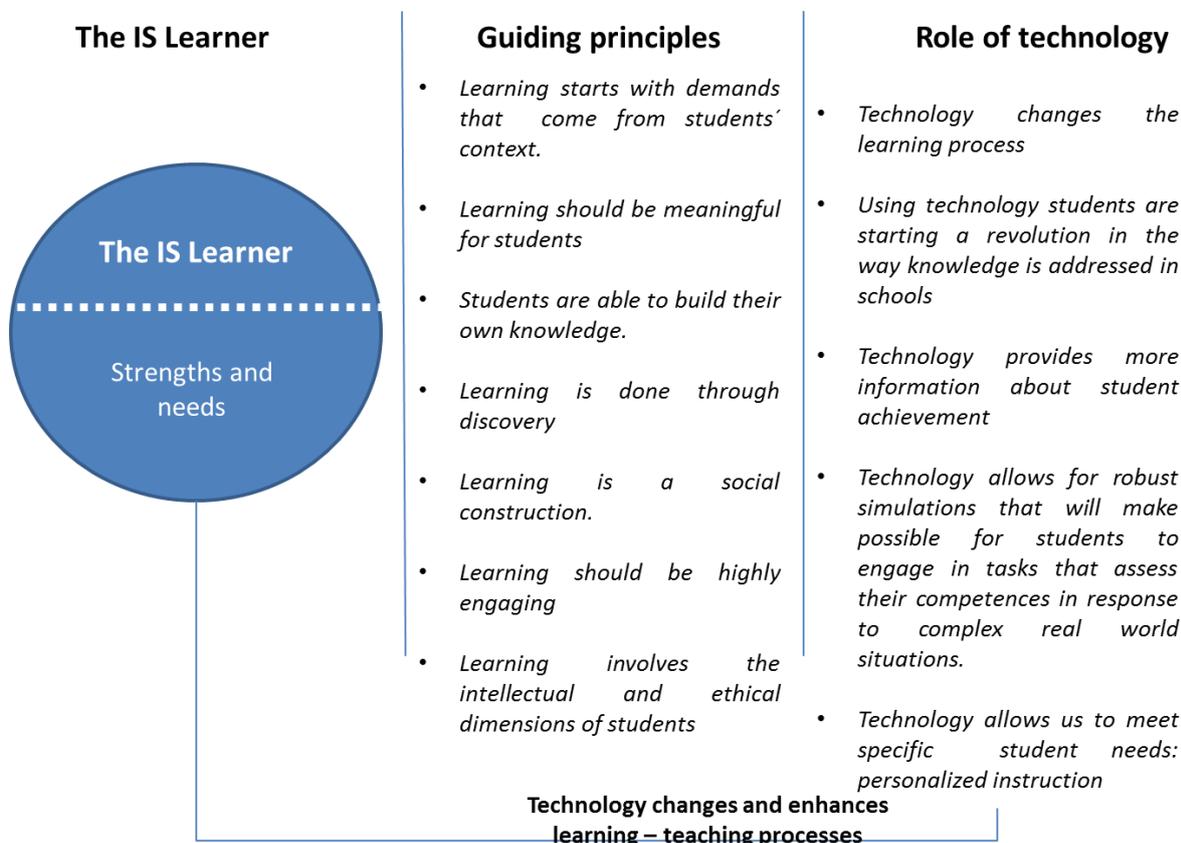
Innova Schools is implementing a paradigm shift: from teacher centered schools, in which teacher's knowledge is basically transmitted to students, and teachers are the main source of learning; to schools that are student centered. In a paradigm centered on student learning, students actively engage in learning interacting with different sources of learning: e-books, internet, the teacher, the other classmates, with guidelines provided by their teachers. In this paradigm, technology is regarded as an important tool. Our learning process promotes that students use technology to learn efficiently, and that teachers facilitate this process accordingly.

### *A social constructivist approach to learning and instruction*

A social constructivist learning model is an approach to learning by which students build their own knowledge. The socio-constructivist approach to learning is highly effective: it allows students to seek knowledge and construct their own understanding. The following conditions take place when teaching in a socio-constructivist classroom: a challenge engaging students in inquiry, the use of tasks promoting collaborative learning, questions that active cognitive activity, high cognitive demand tasks and problems that promote debate and collaboration among peers. However, it is costly to achieve and requires special teaching talent, both barriers to scale. Teachers need to be robust in the use of pedagogy, and also in the discipline they teach. They need to be self-confident to elaborate on the questions students pose and on the discussion that take place in the classroom, and allow students different ways of reasoning. Therefore, in order to implement a socio-constructivist approach IS needs: strong teacher training, a strong mentoring system and not very large group classroom arrangements.

Starting from a socio-constructivist learning model, we have found the need to put into place some specific guiding principles by which we summarize what we call our Pedagogic Core, which means the way we understand both the nature of learning and the nature of teaching. The uniqueness of the Innova model is that we use technology not only as a tool, but as the most important vehicle for learning by which we give students the opportunities they need to achieve at a high level. The graphic below shows the relationship between the Innova Schools' learner, the guiding principle of our pedagogical core and the role of technology in this process:

Figure 3: Guiding principles and role of technology in Innova Schools



As figure 3 tries to emphasize, the uniqueness of the Innova Schools model is in the way we use technology through continuous innovation as the most important strategy to enhance learning and teaching processes and improve student's achievement. We have developed and put in place different models that embed technology in the learning process: the Blended Learning model and the Flipped instruction model which we will now refer to briefly.

### The Blended Learning model at IS

At IS Blended learning combines direct hands on experiences in the classroom (social constructivist learning) with digital learning in which students use computer based tools to discover and work through core academic concepts.

The most precise and simple definition describes blended learning as the learning model that combines face to face teacher and students interaction with learning spaces with technology where students are working one to one with an electronic device. As Coeten (2003) and Marsh (2003) suggest: a learning approach "which combines face-to-face and virtual teaching".

The Blended learning model at IS is made up of two modes: Group learning and solo learning.

- In group learning students collaborate with each other, often in small groups that are led by a teacher to discover new concepts and develop high order understanding through projects and exercises. While group learning is key to helping students develop academic knowledge, it supports the development of competences such as collaboration, teamwork and leadership. This usually happens in classes of around 30 students.
- Solo learning is a new format of independent, student-led and self-paced learning often enabled by technology. Students construct their own goals, paths, and work flows, with teachers providing targeted support as needed. Solo learning is a major differentiator for IS, here the student learns to develop autonomy, focus, and responsibility for their own learning. Solo learning usually happens in a large format, with groups of around 60 students.

### **The Flipped Instruction Model**

The Flipped instruction model is a form of Blended Learning in which students learn new content online starting by watching videos, lectures, or interacting with digital resources usually at home. In this reversed instruction, what used to be homework (“assigned problems”) is done in class with teachers offering more personalized guidance, scaffolding and interaction to students. Thus, at home students explore content that turns into prior knowledge that students will later use in the classroom. This shift: exposure to content at home first, and application in the classroom later, allows students to confront, in the classroom, higher order thinking tasks.

The Flipped Instruction model is being used at Innova Schools to enhance the socio-constructivist paradigm. As the theory and research about socio-constructivism suggest: the more robust the prior knowledge, the greater the possibilities to transfer, and apply knowledge into different and new situations.

There are four key elements of the flipped classroom that contribute to enhance learning<sup>4</sup>:

- The possibility to give students an opportunity to gain first exposure prior to class.
- Give students incentives to come better prepared to class
- Provide mechanisms to assess students understanding
- Provide in-class activities that focus on higher level cognitive demand due to the fact that prior knowledge has been taken care of at home.

During the 2014 school year, we have started to pilot Flipped Instruction in two schools: Chiclayo and Comas; in two content areas: Mathematics and Science; in two different grades: 7th and 8th. This year, we are piloting Flipped Instruction in one school in Lima and one in the province, with four teachers, and approximately 80 students.

#### **4. How is communication and feedback assured through the schools in the network?**

In terms of school management, we have realized that we need to move forward from a type of school management that comes from understanding ourselves as a central office operating a network of schools; to a type of school management that arises from an understanding of Innova Schools as a System.

In order to work as a System, we needed to get a deeper understanding about the underpinning theory of change and action we should adopt in order to inform all decisions in our organization. Discussion about the underpinning theory of change and action at Innova

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<sup>4</sup> Taken from Flipping the classroom. University of Vanderbilt Center for teaching  
<http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom/>

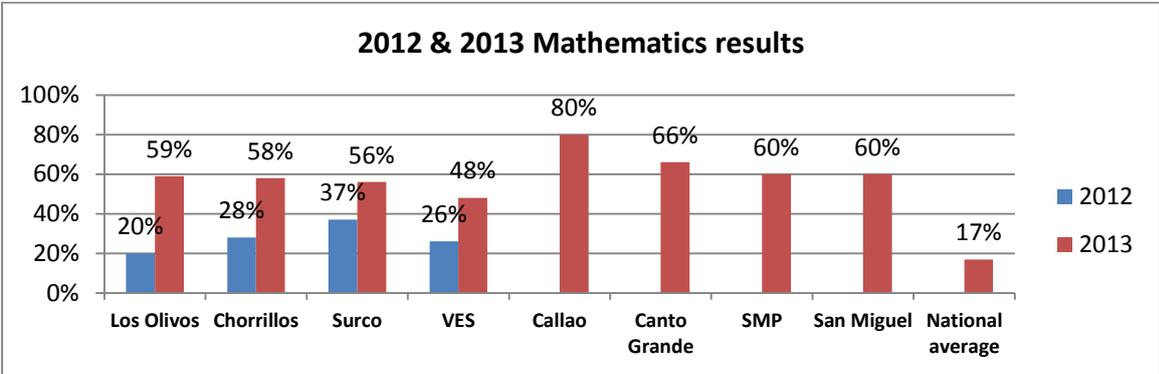
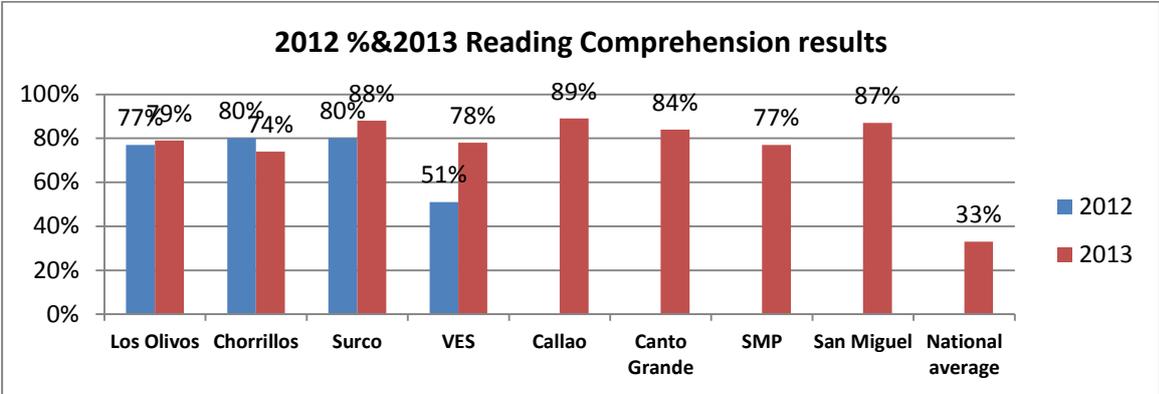
Schools as well as the presentation of our framework will be addressed in the “Success factors. Tensions and Impediments” section of this paper.

**5. Evidence of effectiveness and efficiency**

Having blended learning as the strategy to assess we now present data that refers to changes at different levels: student achievement, the school leaders, the teachers, the students themselves, the parents, and change on learning environments.

**Students’ learning outcomes**

The *Evaluación Censal de Estudiantes* (ECE) is the only nationwide assessment for students of second grade which is applied on a yearly basis in Peru. In terms of student performance in this test, there is evidence of success at IS. The following charts show the 2012 and 2013 results in both Reading Comprehension and Mathematics:



Along with these results, our Quality Assessment Department collected during 2013 information about the impact of the Blended Learning Model in students’ achievement. For this purpose, standardized tests were applied in the schools that had implemented the Blended Learning model and schools that did not.

The following chart shows the levels of student achievement in Mathematics in 7<sup>th</sup> grade. The group that learned Mathematics using the Blended Learning Model (BL) got better results than those who did not use this model.

	Number of students	Pre - test		Final test	
		Min - Max	Median	Min - Max	Median

<b>Without BL</b>	220	0-15	8	2-16	9
<b>With BL</b>	298	0-16	9	3-16	10
<b>sig</b>			0.003*		.000*

Similar results were found in Reading Comprehension. The following chart shows that 8<sup>th</sup> grade students that used the Reading Comprehension software for their Spanish classes got better results than those who did not use the software.

	Pre - test		Final test	
	Min - Max	Median	Min - Max	Median
<b>Without BL</b>	2-20	11.4	4-20	12.8
<b>With BL</b>	3.6-20	11.6	1.26-20	14
<b>sig</b>		0.053		.032*

Although learning in secondary education seemed to improve with the Blended Learning Model, students in primary education did not show the same results. The following chart shows that there was no difference between 4<sup>th</sup> grade students that had learned Spanish using Blended Learning and those who had not.

	Pre - test		Final test	
	Min - Max	Median	Min - Max	Median
<b>Without BL</b>	0-16	10	0-16	11
<b>With BL</b>	0-17	10	0-17	11
<b>sig</b>		0.83		.432

### Teacher performance

Improving teacher performance is a shared responsibility among school principals, the Teacher Training system and the Teacher Monitoring system. A teacher coaching and monitoring system was implemented during 2013, through this system all teachers were continuously observed during their classroom performance using some specific indicators. Each observation was followed by a feedback meeting in which each teacher had the opportunity to reflect upon their performance and received suggestions for improvement.

Results show that teacher performance improved consistently during 2013. The table below shows the percentage of teachers classified under low, medium and high performance at the beginning of 2013 and at the end of that same year. The data shown below is from eight schools, seven of these schools were in Lima and one was outside of Lima.

Teacher performance	April 2013	November 2013
<b>High performance</b>	3%	43%
<b>Medium performance</b>	23%	52%
<b>Low performance</b>	74%	5%

Along with the Teacher Monitoring System, the Teacher Training programs are an important strategy for improving teacher performance in Innova Schools. At its initial stage, meaning a teacher first year in Innova Schools, Teacher Training Programs include six main components:

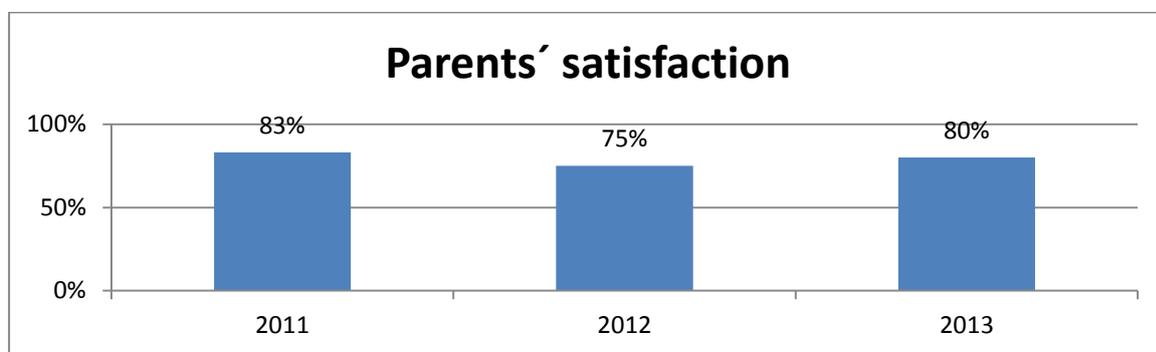
- An introduction to Innova Schools' Guiding Principles

- Highly effective Teaching and learning strategies for each subject in our curriculum
- The blended learning model and the effective use of each software for the teaching and learning processes
- Effective classroom management
- Subject matter knowledge for the core areas
- Personal development

These six components are organized in modules, delivered before and during each school year. The number of training hours an Innova Schools’ teacher receives during the first year could go from 52 to 170 hours a year.

### Parents’ engagement

We have been collecting data from a consultant marketing firm (“Arellano Marketing”) that has been inquiring about parents’ levels of general satisfaction. The following chart shows the percentage of parents’ that felt satisfied with the educational service Innova Schools provided by 2011, 2012 and 2013.



Parents’ engagement and satisfaction with the service provided by Innova Schools had also had an impact on students’ enrollment rate. While at the end of 2012, only 20% of students left Innova Schools and moved to other private schools, at the end of 2013, only 12% of our students left Innova Schools. Both the improvement on parents’ satisfaction and the decrease of the dropout rate seemed to be related with some important factors or variables such as:

- The role of principals, their relationship with parents and the perception parents had about Principal’s leadership.
- The school work environment and teachers perception about the emotional climate in each school.
- Parents’ perception about teacher performance and the emotional climate in the classroom.

### Schools performance

Regional Directors play a very important role in the Innova Schools system, working mainly in capacity building within each school and giving ongoing feedback to schools’ principals in order to improve school performance.

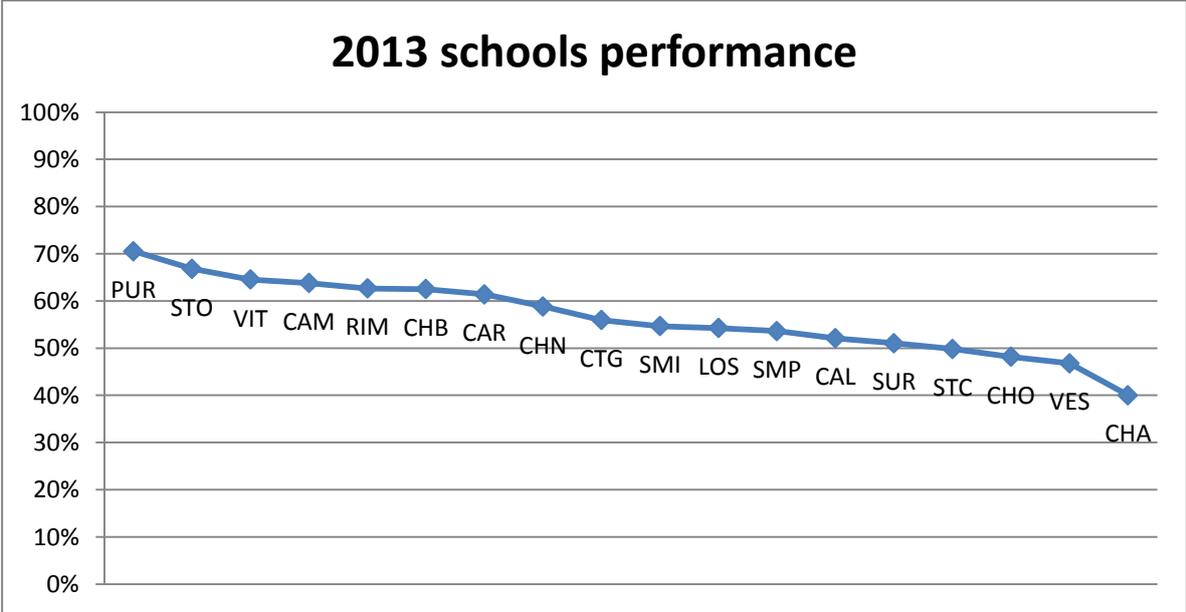
At the end of 2013, our Regional Directors put in place a school performance assessment process, by which they gathered information from different aspects of school functioning drawing from different sources of information. This process allowed us to see which schools were really creating the right conditions for students’ learning and which schools needed

special intervention in order to create these conditions. The table below shows the information used for this analysis.

*Table 1: Information used by the Regional Directors in the evaluation process of the Schools*

- School improvement plan implementation
- Number of expected indicators from the Innova Schools Effectiveness Framework achieved in each school
- Parents’ satisfaction rate
- Re-enrollment rate
- School climate survey results
- Teacher performance appraisal results
- Parents’ perception about teacher performance
- Innova Schools standardized tests results

The chart below shows the overall result for each school obtained at the end of the assessment process in 2013.



It is important to mention that the school performance results allowed us to differentiate the kind of support and supervision each school needed from the part of the Regional Director. This process also helped the regional directors figure out the different levels of autonomy Principals can manage successfully, according to the school performance: the higher the score of the school in this assessment, the less supervision the school needs and vice-versa.

Implementing Professional Learning Communities (PLC) is the strategy by which we have managed to build social capital and capacities in the school leaders in order to improve schools’ performance. We have been building PLCs with schools’ principals and academic as a way to improve their instructional leadership skills, in a collaborative environment. School leaders’ meet once a month with Regional Directors, who lead these PLCs. Table below shows some of the topics schools’ principals will be working on during 2014:

Month	Topic
January	School improvement plan: SMART Goals

February	2013 standardized test results: analysis Highly effective teaching and learning strategies
March	School improvement plan Highly effective teaching and learning strategies
Abril	Parents' engagement: sharing responsibility about learning
May	Effective communication and meeting with teachers
June	School performance self-assessment
August	End of term tests: data analysis and improvement plan
September	Tri-level intervention
Octubre	Teacher stress
Noviembre	End of year school performance assessment

### **Changes in the learning environments**

In this section we focus on the changes in the learning environments produced during the implementation of the Blended Learning. This implementation required three stages of deployment: first pilot, medium scale deployment and large scale implementation.

#### *A) First Pilot*

During the third and fourth term of 2012 two pilot projects on Solo Learning were conducted, one for Mathematics and another one for Communication in two of our Schools: Surco and Villa El Salvador. The objective of this pilot project was to understand the functioning of Solo Learning sessions in order to design the large scale implementation for 2013. The pilot project was designed to retrieve information on the following aspects: the requirements needed for solo learning, the teaching competencies and the teaching profile required for this type of teaching.

We had encouraging results in the 2012 pilot in terms of increase of students' achievement using Khan Academy in mathematics instruction: 97% of the students showed an increase on math performance in the post test; 65 percent of the students doubled and even tripled their mathematics results in the post test. All the observed measures were statistically significant.

#### *B) Medium scale deployment*

In 2013, we decided to implement blended learning in 8 schools, 6 of them just started to operate that year: Puruchuco, Virreyes, Rimac, Santo Toribio, Nuevo Chimbote, and Chinchá; and the other two schools were schools that participated in the pilot: Surco and Villa El Salvador. We selected 2 subject domains (Mathematics and Reading and Comprehension). Khan Academy, the piloted software, was used for mathematics and a program developed by a prestigious university in Peru "Leo PUCP" –also a previously piloted program- was chosen for Reading and Comprehension for Primary. We requested a prestigious publishing house in Peru with headquarters in Spain, to design for us a Literature Based Program "Leo Todo" for Reading and Comprehension for secondary students. We decided to work with students from 4th to 8th grade. Participants in this second deployment included a population of approximately 2,000 students, 80 teachers, 8 principals and 8 academic coordinators.

#### *C) Large scale deployment*

On 2014, we decided to implement the Blended Learning in all our 22 schools. We selected two more subject areas to be part of this model, English as a Second Language and Science, besides mathematics and Reading Comprehension. Participants in this third

deployment stage included a population of approximately 7,000 students, 200 teachers, 22 principals and 23 academic coordinators.

During this whole process, the Teacher Monitoring and Support and Quality Assessment areas gathered information about teachers and students performance during the Solo Learning session. Here is a summary of the information gathered until now.

*Teachers’ role during the Solo Learning*

The following table shows some findings related to the teachers’ role during the Solo learning.

	The teacher helps develop autonomy in students	The teacher constantly supervises the students’ performance using the software’s dashboard	The teacher gives feedback and support to the students that need it
Always	33%	38%	57%
Very frequently	36%	24%	21%
Occasionally	26%	17%	19%
Never	5%	21%	2%
	The teacher identifies the needs of the group and provides support to the whole group accordingly	The teacher shows mastery of the software being used	The teacher moves through the classroom paying attention to the student’s needs
Good	55%	54%	69%
Fair	32%	39%	21%
Poor	13%	7%	10%

During the second half of 2013, the Department of Quality Assessment provided data in terms of students’ performance and students’ and teachers’ levels of satisfaction with Blended Learning. In terms of the general perception coming from teachers of Solo learning sessions, the following findings speak about how the autonomy levels reached by students and the “learning pace” were perceived by the teachers:

- 66% of the teachers participating in the study considered that almost all students worked autonomously during the SOLO learning mode.
- 71% of the teachers recognized that students were more motivated during the SOLO learning mode.

Teachers’ also talked about some requirements for a better implementation of SOLO learning. Among those requirements, the following were some of the requests teachers made:

- Demands for solving technical issues were at a rate of 54%.
- Demands for TRC session’s revision were in a proportion of 25%.
- Teachers’ claim: “Too many students, not very pedagogical” reached levels of 18%.

- Demands from the teachers to include grades for the Solo learning mode in the students' report cards reached levels of 4%.
- Finally we list some aspects related to Solo learning in which teacher's claimed they would have preferred to receive more training:
  - Training on how to use the dashboard: was requested by 39%.
  - Training on technical issues: was requested by 24%.
  - LEO assessment: was requested by 15%. They requested the use of rubrics for formative assessment, and summative assessment tools.
  - KHAN Academy user experience: 9% requested a more friendly view from the user experience perspective.
  - TRC sessions: 3% requested the delivery of sessions, surprisingly these teachers did not know that the sessions were uploaded for them to use, in the TRC.
  - Finally, more effective strategies for class management in Solo were requested by 3% of our teachers .

### *Changes in students' role during the learning process*

The following data concerning the students' role during the learning process was also collected by the area of Teacher Monitoring at the beginning of 2013. The data was gathered through the specific observation instruments prepared by the Quality Assessment Area.

	The students are involved actively in the task. No student is distracted nor exploring other web pages	The students work in an autonomous way	Students show mastery of the software being used
All of them	33%	29%	36%
Almost all of them	62%	50%	52%
Some of them	5%	19%	10%
None of them	0%	2%	2%

From the data gathered during the second half of 2013 by the Department of Quality Assessment we have got interesting findings in terms of students' performance and students' levels of satisfaction with Blended Learning.

Blended learning was proving to be more helpful in terms of increasing student achievement in secondary grades, rather than primary grades, were non statistical differences were found neither in Mathematics nor Reading and Comprehension. In secondary though, levels of growth were found on students' levels of achievement in the post tests for Mathematics and Reading and Comprehension. This growth proved to be statistically significant in Reading and Comprehension for students in secondary, using the software that was elaborated under our specifications with SM Publishing House: "Leo Todo".

In terms of the general perceptions coming from students regarding the Solo learning mode, the following findings speak about how students experienced their participation in Solo learning specifically regarding autonomy:

- More than 65% of students from all grades recognized that SOLO allowed them to move forward, at their own pace.

- More than 74% students from all grades would like to have more hours of SOLO learning in the media lab; while teachers' opinions were divided: 49% of the teachers considered the number of hours as suitable; 46% considered that the number of hours for SOLO learning should be increased.
- More than 65% of students from all grades preferred to have classes in the Media lab and 71% of the teachers considered that it is in the Media lab, where students like to work.
- Khan Academy was the platform that students used more at home after school (54% of students).
- 58% of students considered that they learned more in the group sessions.

#### *Changes in school physical environment, schedules, organization and IT*

Physical environments were also changed; the media lab is an example of this. It integrates two classrooms in one; this is why a sliding door is needed. Opening this sliding door transforms two classrooms into one that contains the mini-notebooks, two projector screens, and two multi-media projectors that help project in both classroom screens the goal for the SOLO session in a particular session.

We also had to arrange classrooms schedules´ to make two classrooms coincide together for Math, English, Language Arts and Science SOLO classes from 4th to 11th grade (i.e., 5th grade "A" with 5th grade "B"). This has not been an easy task with 23 schools operating with the Blended Learning Model. Making this schedule arrangements work once a week for each SOLO learning class, has been quite a challenge. Another important aspect that changed because of connectivity has been band width. We have had to install from 8 to 10 megabytes in each media lab to get enough connectivity for our software to run smoothly during the SOLO learning sessions.

All these changes have brought not easy to solve challenges and more questions are arising as we continue to implement blended learning in our schools. For instance, we are asking ourselves now: What would happen if we should decide to include more solo learning sessions for courses like mathematics and English? Should we then need to construct more Medial Labs in our schools; or maybe is this already a time for us to start considering the "Bring your own device" solution. Now, if we do so; will we put our children in danger in the peripheral areas of Lima where our schools are located, exposing our children to robbery because they are bringing a technical device to school? How much more band width will be required if the amount of SOLO learning hours should be increased? Should we start thinking on software solutions that run in servers of Innova schools, rather than using web-based solutions? These are just a few of the questions and challenges we are facing as we continue and move forward with the implementation of Blended Learning at Innova.

## **6. Success factors. Tensions and impediments**

Most of these factors are still a potential risk and represent important challenges we need to overcome in order to fulfill our mission. The impediments reported in Monitoring Note 1 were basically external conditions, some of these *external factors* are:

- The lack of professionals in education in Peru that count with the qualifications and experience that is required to lead the educational initiatives at Innova Schools.
- Difficulties regarding land and constructions costs in Peru, that could mean an important obstacle to open the number of schools we have planned for each year.
- Distances between schools and transportation difficulties, which shape the way we organize meetings, implement teacher training programs and organize other logistic aspects.

- Internet penetration in Peru, which presents a problem for implementing a pedagogical model in which innovation through technology has a crucial role.

However after the analysis of the Innova Schools model implementation process and the evaluation of schools' performance at the end of 2014, we have been able to identify also some *internal factors* related to the challenges we still need to overcome as a system that could be key for Innova Schools' success.

As we have already mentioned, for the purposes of this document, we are looking at the Blended Learning Model implementation to illustrate some of the *internal factors* we still need to address. During this implementation process, we found two major difficulties:

- a) Schools' leaders commitment to the implementation of the Blended Learning model in all classrooms
- b) Capacity building in both schools mainly leaders and teachers, for delivering this model.

We will now briefly refer to each of these external factors.

### **Schools leaders' commitment**

During 2013 the Quality Assessment Department observed classes and collected data on students' performance from the schools that were implementing Blended Learning. Also, at the end of 2013, our Regional Directors carried out a process to assess our schools' performance, regarding a number of indicators chosen from our School Effectiveness Framework (ISEF).

An important finding regarding Blended Learning was that most principals did not show a sense of ownership towards the implementation of Blended Learning in their own schools. As a consequence, most principals did not include Solo Learning sessions as a part of their Teacher Monitoring Plan. Another finding was that most schools did not include in their improvement plans strategies to improve Solo Learning lessons, such as the use of available data from the dashboard incorporated in the software for Solo learning. Finally, neither the principals nor the academic coordinators were able to make connections between the two components of Blended Learning (Group and Solo Learning) to improve instruction.

### **Capacity building**

#### *Teachers*

Few people in our system have already developed the experience and capacities needed to implement a blended learning program successfully. The number of people prepared to deliver teacher training programs in Blended Learning methodology is far from the number we would need in order to guarantee the sustainability of this program.

The table below shows the number of schools and teachers we have on 2014 and the number of people prepared to deliver teacher training programs to implement Blended Learning:

Number of schools	Number of teachers	Trainers for Blended Learning programs
22	768	24

The small number of trainers and some other issues such as schools' activities, transportation difficulties, etc., are serious obstacles to meet teachers training needs efficiently.

### *School leaders*

As we reported on MN1, we have had encouraging results in the pilot we did on 2012 in terms of increase of student's achievement using Khan Academy in mathematics instruction: 97% of the students showed an increase on math performance in the post test; 65 percent of the students doubled and even tripled their mathematics results in the post test. All the observed measures were statistically significant.

To reach such an increase in students' achievement, school leaders, mainly school principals, should be able to use Solo Learning features to improve instruction and use available data to inform decisions about learning processes in their own schools. However, principals still lack of the knowledge and capacities to use Solo Learning as a tool for improving instruction and students' achievement.

As an example of that, from a sample of 8 principals interviewed at the beginning of the school year, 6 principals declared that they did not really know how to implement an effective Solo Learning lesson successfully, and that they had never used data from the Solo Learning software to analyze student achievement, or to make decisions for improving instruction.

### **Strengthening Change Theory and Strategies: How is this relevant?**

The challenges Innova Schools still need to overcome presented us the need to define and strengthen a Change Theory to inform all decisions we take as a system. This was also a lesson we learned from the ILL meeting in June 2013, during the presentation of our School Effectiveness Framework: we were not fully satisfied with our theory of change and experienced a sense of incompleteness along these lines. After a research process, we found Fullan's Theory of Change and Action, as an important input to strengthen our own Change Theory.

Fullan (2012) explains that all change processes, and particularly change in educational contexts, require a sense of purpose at both individual and collective level. He calls this sense of purpose a "moral purpose", understood as acting with the intention to make a positive difference in the world. This whole idea seemed very appealing considering the problems of leadership we were facing in the schools during the implementation of the Blended Learning Model.

The following table shows Fullan's seven principles for an effective change process and a small definition for each of these.

<b>Principles</b>	<b>Definitions</b>
<b>1. A focus on motivation</b>	This is a clue fundamental piece: if a theory of change does not motivate all actors to implement actions at an individual or collective way, the implementation of change will just not be successful
<b>2. Capacity building, with a focus on results</b>	These capacities are oriented towards results (to raise the bar, to reduce the gaps). The experience a positive pressure, one that motivates, one that is perceived by all actors as fair and reasonable, considering the circumstances: "we are focussed on results".
<b>3. Learning in context</b>	Giving the teachers the possibilities to be involved in a more continuous and sustainable reflection of their own practice, by observing classes and being observed by their colleagues in their own classrooms.

	Cultures do not change by mandate; but by the establishment of norms, structures and processes. <b>The process of cultural change is supported by modelling new values and behaviours that will eradicate the previous ones.</b>
<b>4. Changing context</b>	At one level, from the school into the system, the broader space beneficiaries from the changes that are produced inside a school due to two main forces: <b>motivation and internal capacity building.</b> At the next level: system to school, the benefit comes from the implementation of lateral capacities built in other schools, schools beneficiaries and learn from each other to face proactively, the distractors that come from the system.
<b>5. A bias for reflective action</b>	Prompting in the main actors important levels of involvement allows to act in a more focused way by. Behaviors usually change before believes, the latter changes as a results of processes of reflection upon actions and their consequences.
<b>6. Tri-level engagement</b>	These three levels in Fullan’s theory refer to the school and the community, the district and the state. This means basically the prosecution of strategies that promote mutual and influential interaction among and through these three levels of action.
<b>7. Flexibility and persistency to stay in the task</b>	<b>A strong resolve</b> is necessary to stay the course. It takes Resilience, which Fullan’s recognizes as “persistence plus flexibility”. Rigid persistence begets pushback in equal or greater measure, and failure to keep going in the face of inevitable barriers, achieves nothing. Being flexible is built into the action theory: the theory is reflective and inquiry-based, and it is cultivated in the minds and actions of key players operating with a similar theory of action, there is plenty of self-correction and refinement built-in.

The first principle, according to Fullan, must be motivation: “If a change theory does not motivate people to make the effort – individually and collectively – needed to obtain the desired results, improvement is impossible” (Fullan 2006: 8). As a consequence of this, if change strategies do not incorporate strategies to get and keep people motivated, change will not be sustainable.

Capacity building with focus on results is a consequence of motivation and also a need for keep people motivated. Capacity building is a strategy that increases schools collective efficiency in order to increase students’ achievement. However, capacity building makes no difference in students’ performance if it is not directly oriented to improve instruction and narrowing learning gaps. In this sense, capacity building is not exactly the same as improving principals or teachers performance; furthermore, it is a strategy to improve learning that must be articulated to other strategies, such as instructional leadership developing.

As we have already explained, schools’ leader’s commitment and capacity building are the main challenges we still need to overcome to make our innovations successful. Because of that, we believe that Fullan’s principles such as focus on motivation and capacity building, are an interesting possible answer to our needs and will help us strengthen the strategies for the full deployment of Blended Learning and other innovations in the system.

**The School Effectiveness Framework: a tool to help us understand ourselves as a system, as opposed to a central office operating a network of schools**

We have put into place the Innova Schools Effectiveness Framework (ISEF). Designing and implementing our own effectiveness framework is helping us to clarify how excellence looks

in our own system and which are the conditions we need to put into place to improve students' learning and achievement throughout all our schools to be scalable and sustainable.

The Innova Schools Effectiveness Framework is a dynamic tool that offers all our leaders a common vision to inform all decisions, processes and actions. It also defines the roles and conditions we need to put in place in order to accomplish IS mission. The ISEF uses Fullan's principles as its underpinning change theory.

*The ISEF main purposes are:*

- To share a common vision and articulate decisions and actions inside each school and between schools and our central office
- To build coherence and a shared vision about how excellence looks like in our system
- To define the role of each person in Innova Schools, together with the capacities we need to build in order to accomplish our mission
- The SEF is a self-assessment tool for schools. In that way it helps schools' leaders to identify strengths and needs in their own schools
- It offers support for school planning and improvement

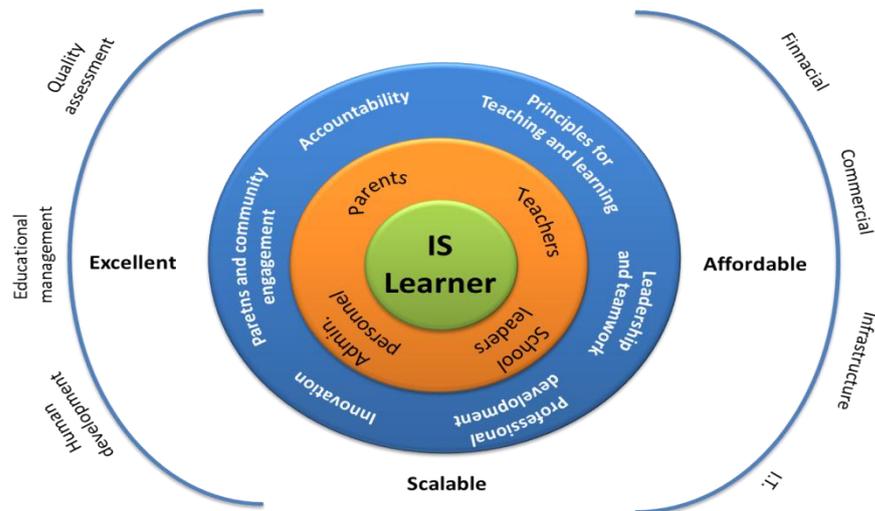
*How does the ISEF influences schools?*

We expect ISEF to influence our schools in three main aspects:

- As a tool for self-assessment, helping principals to identify strengths and needs and to develop an efficient school improvement plan
- To inform decision within schools, providing principals with some examples of best practices they can implement to develop the conditions every effective school needs
- By providing schools with descriptive feedback to inform improvement processes, using the ISEF criteria to assess each school performance on a regular basis.

### **Innova Schools Effectiveness framework its layer and components**

Our ISEF is organized in concentric circles and has six main parts. The model we are using at the moment tries to emphasize the relationship between its parts. Figure below shows the different elements that compose our Effectiveness Framework:



### *Our moral purpose: the Innova learner*

The Innova Schools' Learner is at the center of both our pedagogical core and our organization. We are determined to help each and every one of our students to achieve all what they need, to be successful in life. We believe success in life is a combination of being able to meet the demands the 21<sup>st</sup> century, and to act in an ethical way, which means being committed to the common good of Peruvian society.

As mentioned, we are determined to help our students become successful in a world we are not a hundred per cent sure as of how it is going to be ten years from now. We understand though that whatever their context in the future will be, our students will always be demanded to continue to learn, to be lifelong learners. We have summarized in the [Innova Promise](#) what we want our students to achieve by the end of their school life. The Innova Promise includes four components:

1. *We contribute to develop a leadership based in human values:* We teach our students to be engaged in their communities and to be respectful about other people rights. They will become leaders in their social and professional lives.
2. *We help our students to be successful in life:* They develop all the skills and competencies they need to be successful in the real world. In all aspect of their lives (their higher education, their professional life and their personal life) our students are self-confidente, work in a collaborative way and show creativity and critical thinking.
3. *We meet international standards:* We help our students to build the knowledge and competencies they will need for the 21<sup>st</sup> Century world and country.
4. *We promote lifelong learning:* We help our students to both learn during their school lives and how to learn during their whole lives. They become responsible of their own learning and have the skills they need to learn by themselves.

The Innova Promise is a summary of the commitment we have made to our families and students. We try to make the Innova Promise the main motivation for all people that work at Innova. All the other parts and components of the ISEF articulate in order to create the conditions needed to keep the Innova Promise.

The Innova Learner is the main, purpose and motivation of our organization. As explained by Fullan, motivation is the first step for an improvement process. As he explains, every organization has both an individual and collective soul. Most people in any organization want to take part in it and are eager to make a positive difference with their actions. When this individual purpose is connected to the purpose of the whole organization and when this purpose is understood as the piece that will really make a positive difference in society, then people realize they can actually contribute to a bigger purpose and their motivation increases.

All people at all levels of the organization should be connected with the purpose of helping each and every one of our students to achieve all what they need to be successful in life, particularly our schools' principals. Principals should be both an excellent instructional leader and a change agent in their own schools and should be able to inspire personnel, especially teachers, to stay focussed and motivated.

### *People*

The second part of the ISEF is composed by the people who work at Innova Schools Parents, teachers, schools leaders and administrative personnel should work together in order to fulfil the Innova Promise and help our students to be successful in life.

We strongly believe that sharing responsibilities towards learning and students development between schools and families is a key success factor for our organization. Schools work hard to establish strong relationships with parents and keep them engaged in their children education.

The second part of the ISEF also emphasizes the role each one of them plays and the capacities we need to build in order to be a high performing system. The ISEF is therefore related to other documents which define the role of every IS member, such as our School Leadership Framework, our Teacher performance Standards, among others.

### *Components for schools' success*

The third part of the ISEF defines six key components we consider essential for Schools' success:

- Guiding Principles for teaching and Learning
- Leadership and teamwork
- Professional development
- Parents and community engagement
- Innovation
- Accountability

Each one of these components is built by a number of criteria, which define the main characteristics or conditions any school should develop in order to be effective and increase students' achievement. Each one of this criteria is also composed by some best practices that a school might implement in order to develop these conditions.

The components for schools' success have been developed along with leaders from different levels of our system. It has also been compared with the national school standards proposed by IPEBA<sup>5</sup> and international standards proposed by AdvancED<sup>6</sup>.

### *Scalable, Affordable, Excellent*

The fourth part of our Effectiveness Framework is composed by three concepts: Scalable, Affordable and Excellent. These three words summarize the principles that inform all our decisions and actions at an organizational level that come from our business model.

As mentioned, our aim is to offer an alternative that is excellent, scalable and affordable, in order to narrow the gap regarding the problem of quality education in Peru. IS is trying to answer to this problem with the creation of a network of private schools through an initiative that has the ideas of: "excellent", "affordable" and "scalable" at the core. All projects, programs or initiatives should address these three ideas or principles, meaning that every action in Innova must help us to reach a high quality education for children and, at the same time, must be affordable, regarding the costs we charge parents, and scalable or capable of being implemented in each one of the 70 schools we are supposed to open up until 2020.

### *Support areas*

The fifth part of our ISEF is composed by what we call support areas. These areas, which belong to our central office, are responsible for designing and implementing along with our schools all the initiatives we put in place to improve students' learning.

These areas are supposed to provide schools with support regarding instructional or administrative needs and help to build capacities within each school. They also provide feedback in order to inform schools' improvement plans and processes. These areas include: Finance, Commercial, Human Resources, Infrastructure, IT, Quality assessment, educational strategic planning and educational management.

## **Conclusions**

Innova Schools' model is based on providing an affordable and excellent education, and scaling up its activities across Peru. This is challenging in a country where the average gross domestic product (GDP) per person is just USD 10,240 a year and middle-class household incomes are limited. Therefore, IS needs to stay focused when implementing innovation, control its costs and meet its targets. This is particularly challenging when Quality Education is the most important problem to overcome.

As Innova Schools starts to understand itself as a system, tools and frameworks are required in order to inform all the decision making processes, to have all actors speaking the same language, to clarify expectations for all actors, and to understand from our own perspective "What does excellent look like"; in short, what does Innova Schools understand by Quality Education.

The analyses provided in MN2 come from a closer look at the implementation of the Blended Learning Model. However, looking at the implementation of Blended Learning in the schools in the network, has given us plenty of grounds to look at the whole network and clarify and strengthen our commitment to move from an organization that used to understand itself as a

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<sup>5</sup> IPEBA: national accreditation board for schools in Perú.

<sup>6</sup> AdvancED: international US accreditation board for schools, Innova has stated a process of accreditation with AdvancED to be accredited as a system

back office operating a network of schools; to a system that has a strong moral purpose at the core: the Innova learner.

The Innova Schools' Learner is at the center of both our pedagogical core and our organization. We are determined to help each and every one of our students to learn and achieve all what they need, to be successful in life. We believe success in life is a combination of being able to meet the learning goals, meet the demands the 21st century, and to act in an ethical way, which means being committed to the common good of Peruvian society.

Looking at the process of implementation of the blended learning model has helped us to realize that ownership and leadership are essential when implementing successfully innovations in the system. And in this sense, Fullan's Theory of Change and particularly the ideas of motivation and capacity building, have turned out to be essential. A Theory of change is only meaningful and helpful when it is transformed into action, the processes described in terms of innovations for improving student learning, and assessing school managing, are ways in which Innova Schools is transforming this Theory of Change into actions in benefit of the system itself.

Finally it is important to mention how does being part of the Laboratories of Change with OECD has been helpful for the Innova Schools system. It has been helpful in many ways: it has allowed us to systematize the IS experience; in doing so, we have been able to assess how much we have been moving towards the right direction to meet our goals. We have been able to get a more articulated vision of Innova Schools as a system; for example, we came to the understanding that our theory of change has to be disseminated and become part of our culture, believ

es and values. The connection to OECD network through the Laboratories of Change has also allowed Innova to have OECD as a strategic partner in the academic and educational world, providing our initiative "for profit, for good" with more credibility.

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