REINVENT THE CLASSROOM INTERNATIONAL (RTCi)

EDUCATION DIGITAL TRANSFORMATION FRAMEWORK

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INTRODUCTION

Thanks to the Fourth Industrial Revolution, the skills needed to succeed in the global workforce are redefined. Today's workplaces require workers to come prepared with new ways of thinking and solving problems. As the skills needed for new careers evolve, employers, governments, educational leaders and their citizens are calling for education systems to better prepare their students with future-ready skills so they will be able to get ready for jobs that still do not exist.

Therefore, educational models and practices need to evolve and focus on other paradigms in which the main objective is not only the transfer of knowledge, but the development of skills and competence that will be relevant for when students will be joining the workforce.

According to the Brookings Institute[1], the introduction of information and technology (or "ed-tech") in teaching and learning has been identified as a potentially game-changing disruption for schools systems. This is in part because of its comparative advantages, relative to traditional "chalk-and-talk" classroom instruction. It can, among other things, scale up standardized instruction, facilitate differentiated instruction, expand opportunities for practice, and increase student engagement.

However, in spite of the relentless optimism that has characterized the movement for education technology, the Brookings Institute says its results have been mostly disappointing. Most notably, evidence from randomized experiments, which are designed to estimate the causal effect of programs and policies, suggests that merely equipping a school or a student with hardware (e.g., tablets, laptops, or desktop computers) has had little effect on student learning—and, in some cases, has distracted students from schoolwork. In short, the potential of education technology has not yet been realized.

The Brookings Institute argues for a simple yet surprisingly rare approach to education technology that seeks to:
• Understand the needs, infrastructure, and capacity of a school system
• Survey the best available evidence on interventions that match those conditions
• Closely monitor the results of innovations before they are scaled up

To respond to these challenges, HP has proposed a framework for digital transformation in Education that we call *Reinvent The Classroom International* (RTCi) that integrates all of the components proposed by the Brookings Institute into a sustainable, scalable and structured process to have technology enable and empower the reinvention of educational experiences in schools around the world.

By assessing the needs, challenges, infrastructure and capacity of a school system, we can assist our customers to develop their Leadership and Vision Framework. To Reinvent their education experiences, modernize their teaching and learning processes and develop their technology blueprint. Helping enhance project management capabilities, support the change management process and finally help monitor the results of these innovations for teachers, students and their families.

Education has a critical transformative role in the development of people and communities, HP believes that the right improvements in the education system will produce a significant increase in human capital capabilities. Producing citizens who are agile lifelong learners, with strong globally valuable foundational skills. Reflected for their nation in strong socio-economic improvement and growth. Building nations that can capitalise on global and local opportunities posed by the 4th Industrial revolution whilst avoiding the pitfalls of disruption and vast workforce change.

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1 Brookings Institute (2020). Alejandro F. Ganimiam, Emiliana Vegas and Frederick M. Hess. Realizing The Promise: How can education technology improve learning for all?

SUMMARY

Facing a digital and pedagogical transformation project requires educational institutions to make important and high-impact decisions. Having a framework of reference such as the RTCi, helps throughout the implementation process. From how to lead change from within the organization itself, to how to design and execute new digital learning experiences in total harmony with the pedagogical; something that is very difficult and rarely happens. We noticed that the institutions that followed the RTCi model managed to reach the preestablished institutional and academic goals with greater success.

The RTCi model is showing positive results that directly impact the development of students' skills, especially on those institutions that opt to actively transform their learning experiences and spaces, because it motivates them toward a cultural change that accelerates the incorporation of more active methodologies as part of their pedagogical project. The student ceases to be a passive subject and becomes an active contributor in their learning process. This is clearly a game changer!

In addition, we know that one of the keys to success of any educational system is the ability of its teachers to collaborate with each other. The RTCi model empowers teachers to share their learning experiences inside and outside their educational institution, creating a knowledge network available to thousands of teachers around the world.

This document aims to present the RTCi Education Digital Transformation process, its components and benefits to the educational community and, consequently, to society. We will also share some relevant success stories and their impact data. After analyzing the meaning of Digital Competence in an international perspective, our digital transformation framework will focus in four key areas:

1. Leadership and vision
2. Innovative learning spaces
3. Modern teaching and learning
4. Technology blueprint

Based on a diagnostic analysis (RTCi Readiness Assessment) in which different educational stakeholders (leaders, teachers, and students) participate, we will identify the situation in which any school finds itself within the aforementioned framework, to propose a strategic action plan according to their needs.

The report concludes with a set of recommendations and actions that are aligned with the overall Leadership and Vision guidance, how to redesign education experiences to bring a more active learning experience to life, how to better enable and empower teachers with the right skill set, inspiring and creative ideas to boost student academic productivity and to select the most appropriate technology tools to get it done.

DEVELOPING 21ST CENTURY DIGITAL SKILLS IN TEACHING & LEARNING

HP's Education Digital Transformation Framework and the logic behind the RTCi experience, find their origins in the digital competence of the individual, and therefore, of organizations. To streamline the process and focus on the areas where digital competence should be taken into account when planning, let's focus on four key areas: educational policies that promotes digital transformation, digital competence of schools, teachers and students.

Educational policies promotive of digital transformation

The starting point of digital transformation lies in governments and their education policies[1]. For this to come about, it is the administrations that must provide the necessary resources. According to the OECD (2018), education policies that favor digital transformation are those that work to improve the following two key ideas:

1. Increase educational equity and quality, paying particular attention to students at risk of exclusion, special educational needs, and gender equality
2. Provide students with the necessary skills to face the present and the future, facilitating their transition to the job market, and paying particular attention to early school drop-outs, among other measures

For this, it is necessary for education administrations to:
- Have efficient programs for the deployment of technology in schools, to ensure the success of the investment and the end user's satisfaction
- Distribute resources equitably to minimize the impact of the digital divide on society
- Keep tracking data in mind when rethinking investments

These types of actions will allow them to lead and advance successfully in digital transformation. When educational activity-planners build a vision and identify steps to achieve it, it is helpful to consider a couple of important concepts:
- The first is Adaptability: a future-oriented model makes educational planning move from short-term solutions to long-term strategies
- A second related concept is Solidity: Technological resources must be easy to access and use, adaptable to various learning modalities, and able to withstand the passage of time

New technologies need to provide reliable and secure access to learning resources and help ensure richer and more active learning experiences that build skills for the future.

Digital competence of schools

The level of digital competence of an organization is marked by different aspects that we must pay attention to. Their degree of compliance to a greater or lesser extent will allow for identifying the profile of the organization and, from there, start a strategic improvement plan. The following parameters are common[2]:

- Leadership and governance of the institution from a shared leadership model to ensure the commitment of members of the educational community
- Professional collaboration and well-structured exchange networks to promote peer work inside and outside schools
- Continuous professional development aligned with the strategic needs of the institutions and individual teachers
- Teaching and immersive learning practices that favor students in the development of competencies for the 21st Century
- Learning resources accessible to all, ensuring equal opportunities
- Assessment and personalized guidance that contribute to educational inclusion
- Personal and portable devices in a one-to-one model, which ensures user mobility and allows hybrid or semi-face-to-face learning
- Support services to users to ensure the upkeep and maintenance of the devices
- Digitized and versatile learning spaces that allow users to develop different skills and competencies

In future-ready classrooms, technology must encourage active engagement of teachers and students in skills development. The technological needs of educators and students increase as students develop higher-order cognitive skills and move from passive learning to active learning.

1 Education Policy Outlook 2018. Putting student Learning at the center. OECD. https://read.oecd-ilibrary.org/education/education-policy-outlook-2018_9789264301528-en#page9

2 Kampylis, P., Punie, Y. & Devine, J. (2015); Promoting Effective Digital-Age Learning - A European Framework for Digitally-Competent Educational Organisations; EUR 27599 EN; doi:10.2791/54070. https://publications.jrc.ec.europa.eu/repository/bitstream/JRC98209/jrc98209_r_digcomporg_final.pdf

Digital competence of teachers

The level of digital competence of a teacher is determined by the greater or lesser skill they have in how they integrate technology into their educational practice.

To identify the key aspects that identify digital competence in teachers we have resorted to various reference frameworks from which we extract the following:

- Leadership and professional commitment through an ethical digital identity, in accordance with the values and principles that govern educational institutions
- Continuous professional development as part of lifelong learning
- Digital management of teaching and learning processes in collaborative work platforms for schools, which guarantee information security
- Collaboration and exchange networks with other professionals, inside and outside the institution
- Use of digital resources according to learning situations, favouring hybrid or semi-present learning models
- Carry out personalized education, starting from mentoring and individual accompaniment that guarantees educational inclusion in the classroom
- Implementation of active and collaborative methodologies in which students have the opportunity to learn together

In summary, we need to update what we teach by managing curricular change to enable new modes of instruction (like 3D and the maker movement, blended learning, personalized learning, social and emotional learning, vocational, technical and modular learning) that will focus on the development of skills for the jobs of tomorrow and improve how is taught by making learning relevant, accessible and convenient for all.

Digital competence of students

As organizations evolve, employment expectations are changing from the traditional function-based to project-based work, from technical skills to collaboration skills focus, from 40 hours per week to anytime/anywhere jobs. By popular estimate, 65% of children entering primary school today will ultimately end up working in completely new jobs thata don't yet exist[1].

This means that we must not only teach them for today's challenges, we must also focus on developing the skills they will need to join the future workforce like critical thinking, communication, collaboration and creativity as well as information, media and technology literacy.

The profile of a digitally competent student is one capable of performing responsibly in digital environments with greater or lesser ease.

The characteristics of a digital student are collected from various frameworks[2] that converge in the following:

- Exercise committed citizenship, acting with responsibility and ethical sense
- Know how to manage the process of self-learning, to grow as an autonomous individual
- Be able to collaborate with others and interact from diversity and foster an inclusive classroom model
- Create and co-create knowledge to contribute to society
- Manage in different learning situations and multidisciplinary environments

1 Mcleod, Scott and Karl Fisch, "Shift Happens"
2 Trujillo Sáez, F., Álvarez Jiménez, D., Montes Rodríguez, R., Segura Robles, A. y García San Martín, M. J. (2020). Aprender y educar en la era digital: marcos de referencia. Madrid: Fundación

HP'S REINVENT THE CLASSROOM DIGITAL TRANSFORMATION FRAMEWORK PILLARS

The pillars of the HP's education digital transformation framework are structured around the four key areas where a digital educational plan should focus: Leadership and Vision; Innovative Learning Spaces; Modern Teaching and Learning and Technology Blueprint. Our goal is to help our customers develop their digital transformation framework to focus on meaningful outcomes and provide insight regarding strategic plan development; reinvent the learning experiences to better enable new modes of instruction to be used when need it, to improve how and what we teach to focus on the student, not the content; to enable and empower teachers with the skills and tools they will need to make each learning experience relevant and engaging and finally to select the right technology to bring these experiences to life. Let's review them.

LEADERSHIP AND VISION

One of the biggest challenges that any education transformational project faces is to define and execute your strategic vision. To successfully execute it we must be able to define your goals, strategy and plans, and then effectively communicate it to a multidisciplinary team that engages and focus their efforts towards the same common long-term objective. To help develop your leadership and vision framework, we will focus on these four key areas:

Culture of Change
Its purpose is to define a vision, the strategic planning, and share the implementation process which reflects on all this. This allows the educational community to cope with the changes, understand why they are needed, and align with the technological educational project strategy.

Strategic Planning
Its purpose is to work systematically to promote the implementation of the various steps that are intended to be carried out. This allows for the defining and development of clear goals, to promote high levels of participation, encourage continuous communication, monitor progress, identify problems, and develop solutions.

Exchange Networks
Professional exchange networks are necessary to establish peer contact and facilitate the growth of organizations. All this allows for collaborative work and the exchange of experiences that offer vision, and favor innovation in the educational community.

Inclusion and Accessibility
Equity and quality of education are strategic lines for improving a country's education policies. Technology helps narrow the inequality gap and improves inclusive educational practices for successful integration, allowing for an increase in our society's awareness and well-being.

INNOVATIVE LEARNING SPACES

Schools will have adequate ICT resources and infrastructure to support specific learning environments.

These areas of development are:

Accessibility
The adaptation of spaces and materials is part of the challenge faced by schools and teachers to make accessible what is not yet accessible. This will allow the educational practice to become truly inclusive.

Open Design
Open and multifunctional spaces are proposed, equipped with adequate technology to adapt as needed. Natural light, ventilation, or spaciousness are favorable to the right environment and enrich the school spirit. This, in turn, will improve students' performance and motivation.

Smart and Safe Spaces
Smart spaces are places where users can interact with technology in a friendly manner.

Digital Management
Digital management refers to the design of processes supported by digital environments. This will allow for the interaction and participation of various users in real-time and, consequently, greater efficiency when executing actions.

BEFORE

AFTER

MODERN TEACHING AND LEARNING

Modern pedagogy includes renewed teaching and learning models, where the protagonist is the student, and the teacher's role is to provide everyday, meaningful learning experiences.

These areas of development are:

Professional Development for Educators and Leaders
Defining professional development plans that continue to be aligned with the institution's strategy and teachers' needs will favor quality education and the satisfaction of professionals.

Personalized Education and Well-being
Faced with a high student per teacher and masterclass ratio, technology represents an opportunity to change that model through personalized plans, task planning, flexibility in formats, accessibility to information, and collaborative work, among others. It will allow for personalized education that favors inclusion and educational quality.

Immersive Experiences
It is not always possible to move to real contexts, so technology is presented as a great ally. Virtual reality, 3D printing, or a Chroma, among others, will take us to realistic scenarios that will bring students closer to immersive experiences. These types of authentic contexts will make educational experiences a real and fun learning experience.

Curriculum and Assessment
Completing the national curricula is one of the main concerns of teachers in schools. Student autonomy and adequate monitoring will allow us to grasp each situation in real-time and apply strategies to improve their performance.

TECHNOLOGY BLUEPRINT

The technology framework involves a customized solution that includes selecting platforms to improve both teacher and student productivity, selecting cross-platform devices, ICT management, and data usage.

These areas of development are:

ICT Operations and Management
By making technology available to the education system and institutions, it will be possible to design much more efficient management and decision-making models, allowing users to know what is happening in schools in real-time.

Collaborative Learning Platform
For collaborative networks to exist between students, it is necessary to have collaborative learning platforms that allow students to interact inside and outside the school. That is, making hybrid-learning possible and empowering students to work together.

Data-driven Knowledge
Having evidence of students' digital activity allows for monitoring their progress and defining personalized goals that enhance individual capabilities and prevent school failures. Virtual classrooms are an ideal space for this.

Learning Devices
The one-to-one model must complement projection equipment or technology to share screens in environments, when working in groups. This model allows each student and teacher to access their personal work environment inside or outside the institution, favoring hybrid learning.

In conclusion, the lines of action of the **HP Education Ambassadors** regarding the Learning Spaces Transformation Framework, implies the pedagogical transformation of spaces and technology in the form of workshops for management teams, tailored training plans, adequate infrastructure, furniture, and equipment, among others.

WHY USE THIS TRANSFORMATION FRAMEWORK?

Once the Learning Spaces Transformation Framework is presented, five reasons are given below for facing the challenge of digital transformation through the RTCi project.

1. To achieve digital transformation, well-structured and sustainable plans are necessary over time
2. Pedagogy and technology are meaningfully connected. Giving focus to the correct integration of ICT in the institutions aimed at teaching and learning improvements and Industry relevant digital skill development
3. Agile Hybrid models of learning and inclusion become possible, connecting students in the institutions and remotely (at home) and allowing teachers and students to become agents of learning innovation
4. Support by professionals is critical .Trained HP Education Ambassadors provide support and Industry perspectives
5. It measures the impact

Benefits
All educational stakeholders will benefit from the implementation of the RTCi Project at different levels:

LEADERS

- The RTCi project allows educational leaders to face the digitalization of their institutions and their sustainability
- Its distinction will serve as a reference in government administration and as a recommendation for other cities, regions, states and countries
- The evidence of digital activity will allow for remote monitoring of the institution to know what is happening in real-time
- Improvement in academic results is expected in the medium term

PRINCIPALS/DIRECTORS

- The RTCi experience drives digital management in schools, and therefore allows access to information in real-time
- RTCi spaces make learning experiences engaging and inclusive
- The digitization of schools allows the community to offer hybrid learning models (in-school and remote)
- An RTCi school is always connected and online with its community, so it promotes active participation
- The possibility of measuring the impact implies the immediate identification of aspects for improvement

TEACHERS

- The RTCi experience allows for uniquely connecting with students to implement other types of classroom dynamics.
- It allows for exploring authentic settings for immersive learning experiences
- It facilitates the exchange of experiences with other professionals
- It promotes interdisciplinarity and the development of projects in the institution
- Because of its extensive versatility, the RTCi experience supplements teachers' continuous professional development and gives it meaning

STUDENTS

- The RTCi experience allows the student to manage their learning process
- It shows evidence of progress and learning outcomes
- It offers room for interaction between various students
- Its inclusive character integrates all people and enriches experiences
- Its openness, in all its dimensions, gives meaning to learning

PARENTS

- It allows for sharing information in real-time about what their children are doing
- Investment in Technology (one-to-one) is justified
- The connection with the school in real-time favors transparency in the processes
- It invites families to participate in training plans
- The satisfaction and happiness of their children is the greatest reward

THE RTCI EXPERIENCE

An RTCi experience is a education digital transformation framework that provides institutions with innovative educational experiences.

The RTCi experience must be developed in suitably equipped spaces. They are usually divided into four developmental zones that favor the face-to-face interaction of students with technical support.

Thinking Zone
For open and flexible student relaxation and reflection, where they can ease their minds.

Design Zone
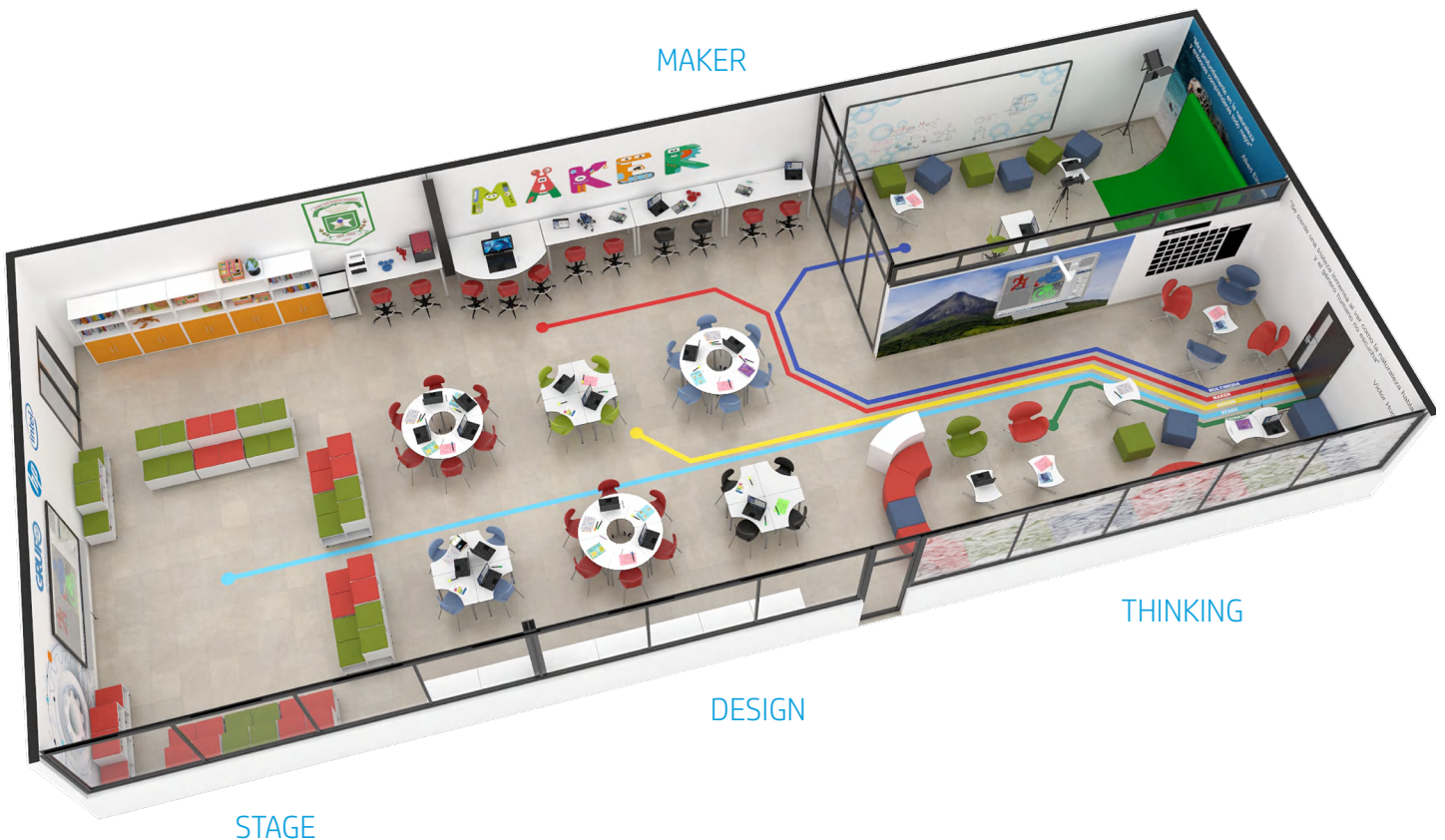Inspired by "Co-working" environments, where greater benefit is obtained through teamwork.

Maker Zone
To encourage creativity, design, and innovative materials in the classroom.

Stage Zone
Not only to explain and present, but also to collaboratively research and experiment.

MAKER

THINKING

DESIGN

STAGE

These types of spaces are not static; they can be customized, adapting them momentarily to any need. They are versatile and multifunctional and are fully equipped with technology. They are spacious and flexible in terms of freedom of movement and students' autonomy.

Connecting Pedagogy with the Learning Space and the Technology

RTCi experiences are determined based on the four zones or environments: Thinking, Design, Maker and Stage. The didactic strategies proposed for the different areas are:

Thinking Zone

Focuses on the student as an individual. Activities such as brainstorming, discussion panels, debates, and forums can be generated with tranquility and small group dialogue.

Design Zone

Encourages group learning to produce or create information. Critical thinking and problem-solving skills will develop from a teamwork perspective: design thinking, problem-based learning, mind maps, and collaborative work.

Maker Zone

It focuses on developing creativity, creating ideas, teamwork, prototyping, planning, and the like. The infrastructure allows for developing specific skills through project-based learning, Tinkerlab, computational thinking, teaching by inquiry, and learning by doing.

Stage Zone

It focuses on sharing skills and knowledge acquired among students by promoting debate and feedback. With the help of projection equipment, there can be exhibitions, presentations, case studies, collaborative work, and the like.

SUCCESS STORIES

In continuation are the testimony and impact of institutions that have already embarked on this journey with HP's Reinvent the Classroom – Education Digital Transformation Framework.

Colegio San Ignacio
Pamplona, España

Colegio San Ignacio de la institución Jesuitas Pamplona
Javier González Gallo, Administrator
1800 Students
60 Classrooms
80 Teachers

Web: https://www.jesuitaspamplona.org/

"We do not want to be the best in the world, but to be the best for the world"

Father Arrupe

After five years of transforming schools in Spain, there have been countless experiences, stories, and anecdotes encountered with management teams, teachers, students, and families. The RTCi Spain project is an immensely enriching and productive undertaking. It has been challenging to choose a single institution for this document, but we consider that the case of San Ignacio School reflects, in all its dimensions, the purpose of this project.

The Starting Point

Pamplona is located in the northern part of the country and is the capital of the autonomous community of Navarra. With its vast cultural and gastronomic wealth, it is internationally renowned for "San Fermines." The results of Navarra in PISA 2018 placed it first in Mathematics.

With more than 400 years of history, San Ignacio School has always had as its mission, the objective of becoming a highly recommended educational institution, at its various stages in this context. So, five years ago, with that purpose in mind, it began the transformation project "CAMINA," the result of profound reflection by the teaching faculty concerning the type of student/person/ citizen they wanted to train in their Institution.

The CAMINA Project involves the student's vision of the 5C's: Conscious, Compassionate, Competent, Committed, and Creative. Two lines of action were simultaneously initiated to conduct such an ambitious initiative: methodological change through the restructuring and adaptation of the learning spaces, with technological renewal assisted by Group AE and HP.

The Project

For the curriculum project, the significance for each of the five C's was mapped by students' age group. The school's pedagogical project was redesigned, orienting them toward a model based on competencies from active methodologies such as Project-Based Learning, among others. A plan was set up for continued professional development for all teachers based on the needs of the project and professional concerns. This preamble generated the lengthy development of new classroom materials, produced with interdisciplinarity and collaboratively, which are still valid and revisited each year.

When rethinking the spaces, it began with an RTCi classroom, including the four zones (Thinking, Design, Stage, and Maker). However, they soon realized that it was not enough for their 1,800 students and extended the transformation proposal to include the institution's remaining areas.

- The one-to-one model, for students and teachers, is already a must that has no going back
- The furniture has gone, and continues little by little, to be replaced, in the search for flexible, mobile, height-adjustable solutions that guarantee accessibility for everyone
- There are far fewer walls, and wider spaces are sought that favor other models of interaction between students
- Connectivity and charging points have become hot spots in the institution
- Bright and pleasant spaces that have varying decorative elements that are integrated into the learning experience, (walls with various textures, motivating vinyls, signage, etc)
- Devices that allow interaction and sharing from hybrid learning models
- Of all that is done in the institution, there is digital evidence; something that allows accompanying the processes at all times, and guarantees the quick interventions

Its commitment has allowed the institution to be better prepared to manage the challenge to provide a hybrid learning experience (in-person and/or on-line), without diminishing the quality of its educational model. With the support of their teachers, the students themselves took on various initiatives in the face of the new learning situations presented. Without a doubt, an example to follow!

100% digitized infrastructure

Rated[1] at 4.3 / 5 by customers, they highlight the commitment of the faculty, modern facilities, and the educational project.

Impact and Achievements

Many barriers had to be broken down, but it is clear what this transformation is achieving in the educational community. The results can be quantified.

Leadership and Vision

- A culture for change is fully integrated into the vision of the institution's project
- There is a shared understanding and overall commitment from the educational community
- It promotes creativity and new roles for staff and students.
- Actions are planned
- Participation in activities and knowledge exchange are promoted

Innovative Learning Spaces

- 80% of the spaces in the center have already been transformed and equipped
- The spaces are accessible, spacious and invite mobility and knowledge exchange
- The freedom of movement and autonomy of students is promoted
- The spaces allow co-working
- The spaces allow for simultaneous attention to students who are in the institution and to those who connect from other locations (home)
- An overall operational plan and basic services are in place

Modern Teaching and Learning

- The level of Digital competence is assessed
- The PBL (Project-Based Learning) is evident in the pre-primary, primary and secondary stages
- Continuous training is aligned with needs
- Self-directed learning processes are supported
- Digital technologies favor collaborative learning strategies
- Digital tools are used to give feedback to students and their families

Technology blueprint

- The wireless connection is good and allows connection to all users with at least one device
- The spaces allow connection from the outside, and remote learning
- Recharge points are sufficient and well distributed
- The digital ecosystem allows for the coexistence of multiple educational technologies
- The one-to-one model is extended to all stages (from the age of 8)

Aware that preschool, primary, and secondary levels have been more facilitating toward this change, the new challenge points toward transformation at the high school level, currently conditioned by dense programs and external tests for entry to universities.

Our HP Education Ambassadors continue to support this transformation and evaluate the impact, so as to offer new lines of work and solutions to the problems that are presented.

% of all classrooms that have been reinvented and redesigned

80

IED Francisco de Paula Santander
Bogotá, Colombia

Willington Gómez, Rector
1,200 Students
60 Teachers

Introduction

The first RTC in Latin America was launch on September of 2018, in one of the public schools manage by the District Education Secretary (SED) in Bogotá. The IED Francisco de Paula Santander is located at Bosa district, in the southwest of Bogotá and is the 8th largest locality and 9th most populated. This district is inhabited by lower class residents who faced many socioeconomic challenges.

The school´s Institutional Educational Plan (PEI) is called "Hacia una formación humanística, integral y dinámica para el siglo XXI" (Towards a humanistic, essential, and dynamic education for the 21st century), aiming the improvement of personal potentialities through these fundamentals: values, communication, and development of thinking skills.

That is why the Reinvent The Classroom framework match their ideals, as being a project that understands the changes needed to a more innovative and disruptive education through the transformation of the learning spaces, teaching and learning experiences and technology.

When planning the deploy of the project, the main objective was to reinforce the pedagogical and curricular strategy of the school through the exchange of knowledge and meaningful experiences supported by the use of the ICTs, which comes with the development of the RTC methodology.

With this in mind and considering the results of the diagnosis of the teachers training, and the PIAF (Annual Institutional training plans) developed during 2018, two lines of instruction were designed for the year 2019:

1. RTC classroom teacher training strategy (Phase III and IV): Develop the skills needed to incorporate the Project Based Learning methodology in the RTC, making use of the zones and the interdisciplinary collaboration. Driving a change in the mindset of the teachers who think of students as Consumers and not Prosumers.
2. Situated Professional Development - SPD (Collaborative Learning): Improve the pedagogical practices via the analysis and curricular assessment, taking into account the needs for professional development of the teachers and the collaboration spaces to meditate, share and debate their practices with their peers in order to improve their role as educators.

For development of the previous lines of training, we had the support of external entities such as HP Inc, Group AE, Microsoft, Intel, and the Ministry of Education, through the SABER digital strategy.

The challenges arising from the implementation of the RTC are:

*   Strengthening of pedagogical practices in dynamic educational environments that favor the permanence of students, because they encourage schoolwork, and their desire to successfully complete their educational process
*   Continue the development of the educational project that responds to institutional needs through the implementation of the RTC classroom and the modification of the curriculum and didactic strategies
*   Improve the academic results of the institution and quality indicators
*   Consolidate academic projects of great impact for the community
*   Improve management processes related to dropout and academic performance

Impact and Achievements

After a year of training in the RTC classroom, the teachers design and apply class activities, developing didactic sequences adapted to the tasks, by zones, through active and innovative learning.

*   The RTC classroom has contributed to the innovative ecosystem of the FPS School; arriving with significant appropriation of ICT
*   The school was in the top position within public schools in the SABER 11 Tests of 2019, placing it in the top 50 Best Public Schools in Bogotá
*   The curriculum structure of the school was modified with the implementation of the RTC classroom; micro designs by areas were consolidated and didactic units oriented to development were developed in the RTC classroom
*   Teachers have developed successful pedagogical experiences that have been recognized in different events developed by the Ministry of Education
*   Collaboration and learning ties have been generated between teachers and students, where teachers can also learn from their students

"With the implementation of the RTCi classroom "Fabricando Proyectos y Sueños" (Manufacturing Projects & Dreams), we have achieved the union of teachers, managers and students around the transformation of our pedagogical practices."

Willington Gómez

Rector Francisco de Paula Santander de Bosa

RTCi Dashboard

Focusing on measuring what we value and not just value what we can measure.

In the first 12 months of execution, we registered an improvement in all qualitative and quantitative metrics, as we see below. The IED Francisco de Paula Santander improved 28 positions in the Saber 11 exams ranking of the public schools in the Bosa area.
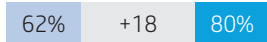
+28

RANKING COLEGIOS PÚBLICOS

2018		2019
71	+28	43

Bogotá: 716 Colegios

802	+289	513

Colombia: 9,537 Colegios

LEADERSHIP AND VISION

53%	+22	75%

Family Satisfaction

62%	+18	80%

Family sense of belonging

71%	+10	81%

Relantionship outside organization

63%	+7	70%

Support Programs for Teachers

TECHNOLOGY BLUEPRINT

50%	+19	69%
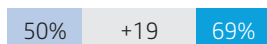
Use of digital tools in class

63%	+9	72%

Teachers digital skills

38%	+14	52%
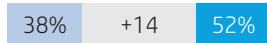
Student digital skills

31%	+46	77%
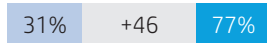
Use of internet

MODERN TEACHING & LEARNING

47%	+13	60%
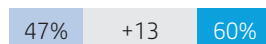
Use of innovative methodologies

47%	+20	67%

Teacher Collaboration

INNOVATIAVE LEARNING SPACES

	N/A	75%

Time spent in RTC

79%	+10	89%

Students engagement and interaction

The journey to reinvent education

STARTS NOW!

Don't wait any longer, to get started contact us and sign up to run the RTCi Assessment in your institution..

Our assessment process has been designed to understand the academic and technological capabilities each school havein place in relation to the RTCi Education Digital Transformation Framework. It is a survey designed to help us understand our customer readiness in regards to Leadership and Vision policies; Innovatitive Learning Spaces (or experiences); teachers capabilities in reference to a Modern Teaching and Learning strategy and the Technology Blueprint required to reinvent their classes. The survey is administered through an online platform to a group of previously identified individuals (leaders, teachers and students) who will have an opportunity to actively participate in the project. HP will provide our customers with a customized RTCi Assessment report summarizing the findings into a set recommendations and actions, all aligned with our four key pilars, listed below.

Leadership and vision
- Predisposition to change in the educational community
- Strategic planning level
- Tendency of teachers to participate in exchange networks
- The institution's degree of inclusion and accessibility

Modern Teaching and Learning
- Effectiveness of continuous professional development for teachers.
- Implementation level of personalized education to assit with well-being.
- Capacity to develop experiences in authentic contexts.
- Compliance with curriculum development and the evaluation of students.

Innovative Learning Spaces
- How adaptable, open and flexible are the classrooms
- How sustainable the spaces are
- Security level standarts
- The institution's image with regards to digital management.

Technology Blueprint
- User satisfaction at the ICT operations and management level
- Community perception of collaborative work.
- Evidence of data-based knowledge.
- Selection of the right computing platform to perform each activity

RECOMMENDATIONS AND NEXT STEPS

From the analysis of the responses provided during the RTCi Assessment process, HP will provide a list of recommendations tailored to the needs of each customer.

These recommendations will be organized in a set of educational consultative services and actions, that will need to be in place to better execute your transformational process. They are:

Consultative Workshops to facilitate the development of a consensus strategy and to give an opportunity to key stakeholders to contribute to the RTCi process, HP can offer a series of workshops to help with the creation of a shared vision that can be used to define policy, investments and action plans. The target audience for our workshops are Senior Managers and Decision Makers.

Learning Space Design: our design thinking approach help each school to completely redesign their learning spaces based on their pedagogical activities.

Professional Development for teachers in digital resources, digital pedagogy, evaluation and feedback, empowering students, facilitating students' digital competence, management of the most popular educational platforms, how to design a RTC educational experience, etc. The training plans can be customized to address the strategic objectives of the school with those of the teachers.

Technology Blueprint: To guarantee the sustainability of the project over time, it is important to have a structured plan for the acquisition of quality devices, which are selected according to the pedagogical transformation and all users (students and teachers).

Project Management: the digital transformation process in schools usually requires coordinating multiple tasks and resources. To facilitate this, HP will offer project management service to reduce the burden on schools and ensure the project is correctly deployed.

Support: HP can provide support during the whole academic year, to ensure technology is used to enhance the teaching and learning experiences being deployed.

BEFORE

AFTER

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