

# THE JOURNEY TO INCLUSION

# ¿From School Innovation to Transformational Change in Public Education?

# A discussion note

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Lima and London, September 2022

# **Prologue**

The question-marks in our title point to a paradox at the heart of efforts to achieve radical change in public education systems. It is increasingly recognised that the most important reforms require 'whole system' change that links all levels from the classroom to the education ministry. However, even where there is coherent national leadership for change - and often there is not - it is much more common (and indeed practical) for innovation to proceed through local 'projects' that invest initially only in a school or group of schools or a particular dimension of change like teacher education. Drawing especially on experience of an important UNICEF initiative in Peru (*Más Inclusión*) we consider here how the tension between these two approaches might be bridged.

Let us unpack this paradox in more detail. Education is the most important investment that the state makes in developing the capacity of its citizens to live full and productive lives, starting from pre-school and extending through the life-span. Compulsory schooling takes up many years in the lives of children and young people. This is by nature a big and complex system involving very large numbers of different participants. Across the globe there has been increasing agreement that a better future for today's young people in our diverse societies depends on achieving universal quality education (1). The fourth of the United Nations Sustainable Development Goals expresses this aspiration more fully as *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*.

This is a challenging agenda for leaders at all levels. As an important UNESCO document (2) puts this, implementing the message that *every child matters and matters equally* will likely require *changes in thinking and practice at every level of the education system, from classroom teachers and others who provide educational experiences directly, to those responsible for national policy.* 

Even where national governments are providing strategic leadership for this agenda - for example, by legislating educational rights, making quality, equity and inclusion central to policy, reforming teacher education and investing in change - this framework only provides the direction and conditions for school improvement: real change has to be delivered in many thousands of different classrooms and involve teachers, students and their families. Typically governments lack the resources and methods (and in decentralised systems, also the authority) to make progress everywhere at the same time: instead they are likely to focus effort in some sub-systems and places before others and hope innovation then spreads more widely.

Commonly and quite understandably given the practicalities involved, innovation typically begins from relatively small-scale initiatives - *projects* - that over a limited time period bring extra effort (some investment, technical expertise, new leadership) and perhaps some relaxation in usual bureaucratic requirements, to a particular set of educational institutions. *Más Inclusión* is an example here. (Marcia was the Coordinator of *Más Inclusión*. David

came as an international advisor to its two sites in 2019 and returned with Marcia to study post-project progress in one of these, the region of Ucayali, in May 2022.)

But this is also problematic. If the project had some success but required these extra resources, what happens when the project ends? And if the project institutions needed extra help, how can the progress be shared with others who lack this support? Moreover, if transforming education is a 'whole systems' challenge, requiring attention to issues not controlled at the level of the school, how can projects be transformational?

We don't think that there are easy answers to these questions and dilemmas. But in the rest of this note we reflect on the experience of *Más Inclusión* to explore further how local initiatives like this can be:

- a) made sustainable and further developed in the initial project site(s) once the main project intervention has ended;
- b) widened to include other schools in the area and beyond; and
- c) used to inform policy and system change, locally, regionally and up to the level of national government.

# The Más Inclusión Project, 2019 - 2021

Peru is a large middle income state (population 32 million, more than a third of whom live in the Lima Metropolitan area) characterised by massive inequalities relating to geography, class, gender, ethnicity and disability, with around 30% of all children growing up in poverty. These inequalities are reproduced in education, not least through a binary system of public and private schools, the latter much better resourced. They have also been exacerbated during the Covid-19 pandemic as all schooling relied on distance education. Moreover while there has been steady progress in ensuring access to education for all, its quality remains an important problem: only 15% of students joining high school have the expected standards in literacy and 9.5% in maths.

In relation to inclusive education, national policy in recent years has taken steps to advance a more inclusive curriculum and strengthen attention to inclusion in the professional development of teachers. It has also revised the legal framework to promote the access of students with disabilities to mainstream schools although there remains a parallel investment in 'special education' for students with more complex disabilities.

UNICEF in Peru, as elsewhere, is committed to improving the lives of all children, especially those who are disadvantaged. Against this background, it sought and gained international funding for a substantial project addressed to improving primary education for children and young people in two of the poorest parts of Peru: two districts in the Ucayali region around the town of Pucallpa in the Peruvian Amazon (outside the town, this area is very rural with limited access to basic services and home to a significant indigenous population); and the Carabayllo district in Metropolitan Lima, an urban setting that receives many migrants from more distant and rural parts of the country, as well as from Venezuela. Initially 7 mainstream

primary schools accepted the invitation to be the focus of this project in Ucayali and 8 in Carabayllo.

*Más Inclusión*, started from the philosophy that *inclusive education* is a right that every child should enjoy and fundamental to the quality education required to address the widespread deficiencies and inequalities in the experience of students. Conceptually the project team understood inclusive education as a process of continuous improvement by which the educational community reflects on its capacity to serve the diverse range of students, identifies barriers to access, participation and learning, and seeks to address these through strengthening *inclusive cultures*, *policies and practices*.

Accordingly the project focused its work on developing the capacities of schools and teachers to successfully include diverse students, especially those living in situations of disability. But from the outset it understood that schools are embedded in two wider environments. Locally, schools are embedded in their communities: the students and their families need to be partners in the educational enterprise; and they, as well as teachers and other staff live and participate in the communities from which they are all drawn. Nationally, public schools are also embedded in a multi-level policy and management system that defines, or certainly shapes, the conditions for local action. Given this understanding of the interconnections between *school*, *community and system*, the project aspired to find ways of both enhancing community support for inclusive schooling and improving how government and the state system establishes the local conditions for success.

The resources available allowed the project to recruit a mixed team that changed over time to meet new challenges but started with five school 'facilitators', based wholly in one or other of the two areas - all teachers who knew their respective communities and had some experience of diverse classrooms - and two others offering support across the project (a pedagogical coordinator and an educational psychologist, with knowledge of special education), plus Marcia herself as the general coordinator .

Initially the project was funded for two years. However, less than one year into its work, the global Covid-19 pandemic - which was especially damaging in Peru - radically changed not the purpose but the requirements of this work. The schools closed for two years and relied on distance education; the project had to respond to this new reality and itself shift to largely being delivered 'virtually'. Fortunately the funders were willing to extend the project for an extra year with the aim of getting past this health emergency and consolidating the achievements of the first two years.

The team started with a plan for developing the approaches and skills of teachers and the support required from school principals. The team was also responsive both to what they were learning from this work about what best supported transformational change and also to what participants in the schools and elsewhere requested. Of course, the shift to distance learning during the pandemic was a critical factor here. Students, teachers and families needed to learn how to learn and support learning in this unfamiliar context. Increasingly the project team came to understand that although traditional training and awareness raising

methods have an important part to play in reaching many participants, changes in culture and practice were much more likely where supported by experiential and reflective processes tailored to the individuals involved, notably mentoring, peer learning and other kinds of 'in service' support. (Indeed, the project team used exactly these sorts of learning processes to develop their own skills during this work.) They also came to see the importance of investing in the development of school principals as leaders in inclusive education, a major focus for the project's third year, as well as engaging directly with education managers above the level of the schools.

The team was industrious. It built partnerships with public and other agencies (including civil society organisations) relevant to these tasks, undertook a large volume of training and development activities across school, community and system, and produced an extensive collection of resource materials on inclusive education for wider dissemination.

So at the level of the project schools, the team created a substantial training programme for teachers, mostly delivered remotely, as well as a more intensive programme of 'in service' support based on mentoring by more experienced practitioners. This later developed into more autonomous self-help networks (e.g. among teachers, among principals) or *communities of practice*. These investments sought to develop an understanding of inclusive education, change mind-sets towards a broad pedagogical perspective concerned with welcoming diversity and helping all students to succeed (rather than attending mainly to students with disabilities), strengthen skills in remote education and promote the teaching strategies (e.g. based on Universal Design for Learning, UDL) required to address this diversity.

To join the project, these schools needed some commitment from their principals and other school leaders. Increasingly (especially in 2021), the project invested effort in their development, again mainly through 'in service' support and peer learning, to strengthen their roles in driving change, supporting collaborative work among teachers, and making inclusive education central to school policies and improvement plans. A small part of this investment was financial: UNICEF paid each participating school (US)\$375 to use in assisting students especially at risk of exclusion (e.g. to widen access to the internet).

Locally, the team - working with relevant civil society organisations - used a variety of methods to increase understanding of inclusion and the rights of children among families and their communities and offered direct support to a small number of families designed to strengthen their capacity to support their children's learning during these difficult times - work which the schools took up themselves as the project continued.

The project sought to complement and reinforce these efforts in the wider system, including nationally. As a global agency, UNICEF routinely seeks to influence policy changes by working with governments, in this case especially the Ministry of Education. The project had a head start in this collaboration because Marcia had previously been a senior Ministry official. Accordingly the team invested in work to raise awareness of the policy and management requirements to advance inclusive education - and made similar efforts with education managers at the regional and local levels. Importantly, UNICEF drew on the

project experience to assist the Ministry in developing a new regulatory framework that clarified the meaning of inclusive education for the whole system and established the duty of government to provide in-school supports to *all* students. In partnership with the Ministry, the project created multiple resources designed to strengthen the capacity of teachers and families, including some distilling good practices established in the project schools. The team also succeeded in creating a series of podcasts on the experience of disability within education, made widely available through a telecommunications-sponsored on-line resource.

Also complementing the work with communities locally, the project engaged the leadership of national civil society organisations both in developing the agenda for inclusive education and strengthening their roles in advocacy on behalf of disadvantaged children and families.

# Observations on Ucayali, 2022

In pursuing these three inter-related areas of work, the project team kept in mind the aspiration both to establish sustainable change at the local level and to see the wider spread of inclusive education, although clearly the project could be no more than a starting contribution to what this would involve nationally.

In the work with the schools, the team sought to help principals and their staff establish a 'model' of inclusive schooling characterised by:

- Principals providing visible leadership towards an inspiring vision of inclusive schooling that engaged all stakeholders.
- Staff together promoting a culture in which all students feel welcome and equally valued.
- The school addressing barriers to full student participation and directing resources towards necessary adjustments and supports.
- A strong focus on developing the capacities of teachers to successfully address diversity in the classroom, continually amplified in everyday practice through sharing and reflection among colleagues.
- Positive involvement with families as partners in their children's education.
- Schools sharing their learning with other schools and drawing lessons for local educational management.

As we say above, the team sought to reinforce this progress through raising expectations about children's rights and the importance of inclusion within the wider local community. The third strand of the project work aimed to enhance the conditions for success through strengthening the understanding and commitment to inclusive education in national policies and education system management.

In May 2022, about 18 months after the more intensive work in the schools had been mostly completed, we (Marcia and David) had the opportunity to return to the Ucayali project area. This was not long after students had resumed face-to-face schooling as pandemic restrictions were partially lifted. In a period of four days: we visited two rather different schools to hear about progress; Marcia led a workshop on UDL with 30 teachers from a number of schools;

and we had separate meetings with two of the teachers who had been project facilitators, a group of school principals who were still supporting each other in strengthening their leadership roles, and the top team of the regional education authority, including its newly-appointed director.

Of course, this visit was not a systematic follow-up study: what we report here are just our impressions from this variety of discussions and observations but these impressions do provide the stimulus for the more analytic discussion that follows.

We were largely encouraged by what we learnt. The return to school had been difficult for many students after almost two years 'studying at home' and also for some teachers. The education ministry recognised these difficulties and encouraged schools to find ways of supporting both teachers and students in addressing the social and emotional challenges arising from such a long disruption in normal education.

In our visit to the two schools, the workshop with teachers and the meeting with principals, we were impressed with the extent to which the model of inclusive schooling developed during the project was being sustained: indeed it seemed to us that important characteristics of leadership, culture and teaching practice we list above had become taken-for-granted parts of 'what we do around here'. Notably the principals were celebrating their roles as inclusive school leaders, the schools were emphasising that inclusion is about everyone (and everyone benefits) and teachers were clearly expressing their new 'mind set' about inclusion and supporting each other in strengthening classroom strategies that help every student to develop their individual talents. Moreover the schools were also sustaining their efforts to involve families as partners in their children's education.

We noted that, while the two facilitators had returned to teaching jobs after the project ended, they were still acting as champions for inclusive education and more informally supporting the continuing development of better teaching practice.

We were also told at the meeting with regional leaders that these achievements were recognised and the new director was keen to build on this work, not least to help in addressing the growing inequity that had been one result of the pandemic and related economic challenges.

However it wasn't all good news. Some local policies, for example, on school admission, had not fully incorporated the inclusive philosophy; some schools not involved in the project continued to redirect families towards the 'inclusive schools; and we sensed at least the risk that the broad approach to inclusion might regress to focusing only on students with disabilities. There was still a need for the local education bureaucracy to find ways of being more supportive to the principals and their schools so that their attention was not diverted by administrative tasks from what was most important for students. And at the level of the ministry, national leadership had lost some focus through disruption following the change of government.

Accordingly, we are rather less optimistic about whether the learning from this project will either seed change in other schools or inform the national strategy for transforming education, notwithstanding the contributions to policy-making and educational resource materials we summarise above.

#### Discussion

The timing of this project, 2019 -2021, much of which was during the global Covid-19 pandemic and school closure, was uniquely challenging - for the schools and education system as well as for the UNICEF project team. Nevertheless we both think that the *Más Inclusión* initiative adapted well to this context, making a significant impact in strengthening inclusive education in the project areas as well as informing wider policy and education management. At the level of the schools at least, there is some encouraging evidence that these new ways of working are becoming self-sustaining, although of course we can't yet judge for how long. All of this we describe above. However we also know that this is unfinished business: a lot more will be required if this work (and how it is subsequently taken forward) is to better address the three challenges we identify in our **Prologue**, sustaining new ways of working in the project areas, spreading innovation more widely and informing education policy and management.

In this discussion section, we reflect further on these questions and offer an interpretive account of what we now understand as the *keys to transformational change*, both the keys to what we think has already been achieved and what more may be required to magnify the impact of this work in an uncertain future.

We have identified eight main requirements:

# 1. Responsive project design/delivery

The project sought to address a complex change process in poorly resourced areas during very challenging times. It brought a number of significant assets to this endeavour. UNICEF is an independent global agency with a good reputation in Peru: it was able to establish interest in this work with the Ministry and local education authorities and accordingly the project team started with a positive mandate. UNICEF is able to attract international funding, including in this example to extend the project for an extra year, so it was possible to sustain the work at different levels over three (disrupted) years, a longer investment than many such projects manage. Partly for these reasons, the project was able to recruit an excellent team, including the teachers who already knew the two areas and became facilitators at the school level.

Beyond this, the project team was able to demonstrate very intelligent responsiveness to what unfolded as the work proceeded. It is common in development projects, especially those that have obtained independent funding, to write a project plan that uses a 'logical framework' to show how intended activities will produce desired outcomes on a specified timescale and for what budget. *Más Inclusión* had such a plan. Unsurprisingly it didn't foresee the global pandemic or indeed other things that emerged during the project

experience. To their credit, UNICEF, the funders and the project team itself all demonstrated considerable flexibility in adapting this plan to the 'art of the possible'. Indeed the team gained further credibility with the schools and other partners by their willingness to help with whatever was most important to the partners, including strengthening emotional support to teachers experiencing the loss of loved ones during the pandemic and helping them address the challenges of distance teaching/learning.

# 2. Developing effective practice

It is widely, and correctly, assumed that transformation in education requires major reform in teacher education and training. And indeed, the project invested heavily in awarenessraising and training activities. For example, more than 500 teachers took in-depth courses addressed to understanding inclusive education and identifying teaching strategies that strengthen attention to diversity in the classroom. But the team understood that this investment was a necessary but not sufficient means of transforming practice. (It may be an overstatement but it is sometimes said that such courses are like 'trying to fill a bath with the plug out'.) Rather, there was equally a need to invest in support for experiential learning processes - mentoring, group facilitation, peer support etc. 'on the job' - that valued the existing experience of teachers (and indeed principals) and encouraged them to become 'reflective practitioners', creating their own routes to greater classroom and school effectiveness. It took a lot of time during the project to create sufficient confidence for many teachers to shift a preference for 'expert' didactic instruction towards appreciating these forms of experiential learning. In building capacity in these ways, the project also laid the basis for the schools and others to continue this approach to professional development beyond the project, notably through solution circles, action learning sets and wider communities of practice.

# 3. Peer facilitation

In this context, it is worth adding that the decision to employ experienced local teachers (rather than, for example, education psychologists) as the school facilitators - and indeed the willingness of some of these to continue contributing informally when they had gone back to being teachers - was an important reinforcement to the idea that continuing progress depends on teachers learning from each other through these different varieties of everyday experiential learning.

#### 4. Reaching out to all learners

This is the title of an important UNESCO toolkit (3) for advancing inclusive education. The project had begun with a focus on ensuring that students with disabilities are fully included in the schooling available to all children and young people. There were good reasons for this focus: these students are especially likely to experience exclusion in various ways and indeed there is some tradition in Peru of creating 'special' (and therefore segregated) schools to serve those with the most intensive special needs. However this focus also has disadvantages, first in that to be labelled with a disability often leads to a 'deficit' bias in education ('What is wrong with this student?'), and second, it promotes the

assumption that such students need 'special' teaching. Of course, *Más Inclusión* continued to be very focussed on students with disabilities but understood the importance of shifting mind sets in education towards the idea that inclusive education is designed to ensure that *all* students do well and needs to start from this broad pedagogical perspective, before addressing the barriers and adjustments required to ensure that students with different disabilities are part of the 'all'.

Accordingly, teachers showed particular interest in the approaches and strategies embodied in the concept of 'Universal Design for Learning' that helped them clarify their responsibilities and design/deliver educational experiences that benefit all learners (i.e. starting from the question, 'What does each student need to best develop their own interests and talents and become successful in living their lives?').

# 5. Strengthening school leadership

In Peru, there is a tradition of seeing the functions of school leaders (principals and their deputies) as essentially administrative, important to managing the work of the school but with limited autonomy (for example, not themselves appointing teachers and being rotated to other schools every few years). However, advancing inclusive education is a challenge that requires whole school leadership in developing a vision for the future and skilled management in making inclusion central to school culture and policies as well as strong support for developing the capacities of teachers. In this project, principals themselves invited training and in-service support to develop their leadership roles and strengthen their confidence in representing their schools 'upwards' in the wider local and regional management systems. Especially important here was peer mentoring from another school principal, from Argentina, recognised for the leadership she demonstrated in her own school. One significant product of this stronger leadership was that each project school produced its own story of their *journey towards inclusion* (4).

#### 6. Building partnership with communities

Each school is both a small organisation and a small community: hundreds of people - teachers, students and other staff - meeting every weekday (when schools are open) for several years. But, as we have argued, the school community is embedded in much larger local communities, of course including the students and their families. Schools can lead in the journey to inclusion but progress depends on the active participation of students and families and growing support more widely for what this means in practice. Students need to be active participants in their own learning and an important source of mutual support to each other, not least in sustaining the culture in which everyone is made to feel welcome. Families (especially but not only during the pandemic home-schooling) need to be partners in developing each student's personal educational programme and they will be helped in this if there is also family-to-family support. In turn, civil society associations with a commitment to advancing inclusion can be an important source of information to students and families about their rights and how best to speak up for necessary

improvements - as well as encouraging school leaders to believe they are heading in the right direction.

#### 7. Managing transformation in the wider educational system

Each school is also embedded in the local and national system of education which in Peru includes local, regional and national (i.e. governmental) levels. The project schools were granted some additional freedom to innovate with UNICEF support but sustaining this transformation process and, certainly, extending it to other schools require both management support for innovation and gradual efforts to ensure that all aspects of policy and implementation (concerned for example, with legislation, financing, curriculum, teacher education and performance monitoring) are consistent with a shared understanding of inclusive education.

As we have seen, *Más Inclusión* over its three years worked hard to address and mobilise all these keys to change. Of course, its most intensive work was undertaken at the level of the project schools where the facilitators were in frequent virtual contact during the pandemic and regularly present in the schools when they were open. The local communities are, by nature, more diffuse so while schools reached out to students and families and the project worked to raise awareness of inclusive education, gaining fuller understanding and support from communities is necessarily a longer process in which school success in attending to diversity is probably the most influential factor. Similarly, while the project worked both locally and nationally to engage managers and build a common understanding of inclusive education, including gaining Ministry policy commitment to a new regulatory framework, the education system is a large bureaucracy in which, even with UNICEF backing, the project was a small player.

Accordingly, while our return visit to Ucayali provided encouraging evidence of growing resilience in school performance, we suspect that without continuing support, this success may prove vulnerable, for example to significant staff changes in the schools or new priorities in the education policy system. We also believe that consolidating these gains will require visible champions within the schools providing leadership for continuing this journey, themselves strengthened through networking with champions elsewhere. It will also require further investment to enhance everyday support to inclusion, for example through inclusion support teams and more classroom assistants.

Our strong hypothesis therefore is that the best way of building on the progress we observed is to take this transformation further through extending these efforts to other schools in the region (and beyond) and strengthening the national policy framework for inclusive education. Our 8th proposition follows.

# 8. Spreading innovation, strengthening policy

This three year investment has demonstrated what is possible at the level of the schools, built some community awareness and raised interest in the wider system. It has also shown what is involved in achieving transformational change. The project investment ended in

2021. To go further will require action at the regional level in Ucayali and Carabayllo directed to raising the profile of this work and building the 'lateral' networks linking schools, teachers, students and families in ways that spread innovation to many more schools over the next three years (5). *Más Inclusión* was addressed to primary schools. The next stage needs to widen attention to pre-school, secondary schooling and, in due course, tertiary and vocational education so as to achieve inclusive education through the lifespan.

In turn, regional initiative is only likely to be both successful and sustainable if the education ministry learns from this experience about both what are the strengths but also where there are contradictions and weaknesses in the existing policy and implementation framework and seeks to resolve the latter.

In truth, education systems are large and complex. Successful change takes time, probably much longer than three years, and depends on leadership from the 'top' and radical change in practice at the 'bottom'. National strategies for transformation require not only that education enables all students to learn and develop but also that the education system is itself able to learn and develop: that it becomes a *learning system* - organising inclusive spaces within which stakeholders with different perspectives and experiences can safely reflect on what is happening throughout the system and identify the actions required to make a positive difference. *Más Inclusión* offers a model of how an independent development agency working on the ground as well as nationally (in this case under the umbrella of UNICEF) can facilitate these processes. It seems to us that larger-scale progress in Ucayali and beyond would benefit from further such support.

We offer these reflections to the people we met recently in Ucayali as well as to the governmental and civil society agencies, including UNICEF, involved in this project in the hope that they will be helpful in identifying next steps.

We have focused on one substantial initiative, *Más Inclusión*, that we know directly in our different roles. We shall be very interested to hear comments on this discussion note from colleagues elsewhere in the education and development community with a view to improving this analysis from wider experience.

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#### References

- 1. UNESCO and Right to Education Initiative (2019) *Right to education handbook*. https://www.right-to-education.org/resource/right-education-handbook
- 2. UNESCO (2017) *A guide for ensuring inclusion and equity in education.* https://unesdoc.unesco.org/ark:/48223/pf0000248254
- 3. UNESCO/IBE (2016) Reaching Out To All Learners: A Resource Pack for Supporting Inclusive Education.

http://www.ibe.unesco.org/sites/default/files/resources/ibe-crp-inclusiveeducation-2016\_eng.pdf

- 4. For a collection of stories of school improvement told in the form of organisational journeys, see Gordon Porter and David Towell (2019) *The Journey To Inclusive Schooling: Advancing school transformation from within.*
- https://inclusiveeducation.ca/wp-content/uploads/sites/3/2020/02/THE-JOURNEY-TO-INCLUSIVE-SCHOOLING-\_-final-1.pdf
- 5. For an excellent example of a regional transformation strategy that gradually addressed all schooling in the Canadian province of New Brunswick, see Gordon Porter and David Towell (2017) *Advancing Inclusive Education: Keys to transformational change in public education systems.*

https://inclusiveeducation.ca/wp-content/uploads/sites/3/2013/07/Porter-and-Towell-Advancing-IE-2017-Online-FINAL.pdf