

OECD Tohoku workshop – Tokyo, August 2013

Overcoming the Earthquake Disaster

Toward the Creation of New education

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In March, we were part of the 3rd OECD Tohoku workshop organised in Kesenuma. At the request of Fukushima University we have written a report on the concept, the format and the organisation of the project and workshop. We have tried to understand the driving forces behind a large scale innovative project such as the OECD Tohoku School(OTS). We have tried to give justice to the commitment, the passion and the enthusiasm of students, teachers and other stakeholders.

Professor Gabor Halasz and myself have been invited by Fukushima University to attend the 4th workshop in Tokyo and write a research paper on the OTS.¹ As a participant to both workshops I thought it may be useful to write about my own experiences, report on the progress participants have made since March and which are the challenges ahead. I have made 10 policy recommendations for a successful follow-up of OTS. As such it is complementary to the research paper.

Introduction

The OTS has so far been a fascinating emotional, intellectual and educational journey for all participants: students, teachers, principals, local leaders, empowerment partners, university staff and OECD experts.

The OTS started as an educational response to a threefold disaster: the earthquake, the tsunami and the nuclear disaster. Children and adults were psychologically and physically damaged by the disaster: loss of friends and family, loss of relationships, loss of homes, isolation in a new environment, loss of means of livelihood. Many schools were lost or damaged and stakeholders had to start from scratch. But the educational policymakers and stakeholders who launched the OTS wanted to go beyond physical reconstruction of the schools? They wanted the Tohoku schools to participate and take the lead in a creative recovery of the region, reform of schools and the education system. The organisation of a large event in Paris in August 2014 will showcase the recovery and the attractiveness of the Tohoku region. And preparations for the Paris event will have been an educational journey as well.

In their intellectual and educational journey, participants in the OTS project have travelled from contributing to physical and economic recovery, to the organisation of the Paris event, change and innovation in schools and the education system. Some participants are still focusing on the physical recovery of the region and future leadership, others are focusing on the Paris event, some want dramatic changes in schools and others blame the education system for its rigidity and its focus on knowledge transfer and entrance examinations to the universities. Still others focus on community building and renaissance of traditional culture. The journey has been an enriching and rewarding experience for all participants : students, teachers, principals, local leaders, empowerment partners, Fukushima University and MEXT. As the research paper makes abundantly clear, the outputs and outcomes of the TS project are likely to be important input for future educational policymaking, to make schools more relevant to societal demands from local communities and for innovation in the Japanese economy.

Along the road all participants have acquired important skills and competencies.

During the Tokyo workshop activities of teachers, students and empowerment partners focused on feedback of the study trip to Paris, coordination of the team events for the Paris journey, preparation for an academic session with members of the royal family and meetings with business men. Enhancing fundraising skills of students was high on the agenda. The workshop was very much a joint effort of all the stakeholders. The 4-day Tokyo workshop

¹ The draft research paper has been made available to Fukushima University.

concluded with a seminar for adults on education reform in Japan with important input from leading OTS teachers.

Sense of urgency

For any major reform and innovation to be successful, policymakers need to create a sense of urgency, or such sense of urgency must be readily available. The threefold disaster in the Tohoku region was such an urgency. Many students and teachers were killed, many schools were destroyed and the education system in the Tohoku region was in a shock. Policymakers had 2 options: business as usual -exclusive focus on physical recovery of the school system – or use that specific situation to go beyond physical recovery and focus on reform and innovation. In the chaos lots of teachers had shown strong commitment to their students' lives and their schools and such drive and enthusiasm could be harnessed for efforts to re-create schools, to innovate teaching and learning.

The threefold disaster as a catalyst for educational change!

A coalition for change was established. That diverse partnership of teachers, principals, teachers, community leaders and business men was very much aware of broader urgencies facing Japanese society: ageing population, a shrinking workforce, future shortages of skilled people, weak economic growth over the past 20 years and a huge national debt. Lack of innovation in Japanese businesses is of special concern to many policymakers. Japanese companies have lost their innovative edge. *'Japanese firms losing out in smartphones; NEC to stop production after being blindsided by foreign competitors'*². This decision underlines Japan's shift from electronics industry leader to laggard over the course of the past decade.

Many policymakers in general, and educational policymakers in particular, are acutely aware of the need to reform school and innovate teaching and learning to face those societal and economic challenges head on. High quality education and creative schools will be major players to achieve these ambitious objectives.

Japanese schools

Average performances of Japanese schools in the PISA surveys administered by the OECD since 2000 have been excellent. And there has been great consistency of performances across surveys. Yet, many policymakers are critical of the Japanese schools and the education system. They pretend the national curriculum, the guidelines and the lesson studies are hurdles to creativity and innovation at the school level. The teacher is 'the sage on the stage' and not 'the guide on the side'. Teachers often focus exclusively on transfer of knowledge and preparation for the university entrance examinations. The workload is too heavy according to many teachers and students. Teaching and learning do little to enhance 21st century competencies such as defining and solving problems, communicative and creative skills, proficiency in foreign languages, etc. And such are the competencies most needed in a vibrant economy focused on innovation.

During their educational journey through the OTS project, students and teachers have become critical of their schools as well. By working in partnership to achieve the objectives of the project they have learned to work in team. In the OTS project teachers have become

² International Herald Tribune, August 1, 2013.

the 'guide on the side'. *'Schools in the Tohoku area had to change and students have become more independent since the start of the project. Teachers must teach but students and teachers are more equal in OTS: we are team mates.'*

Objectives and expected outcomes of the OTS project

The people who launched the project were ambitious and had outspoken objectives : *'the students in Tohoku will learn to take initiatives, they will learn from the process and they will think about the future of their own communities and their country. They will participate in the recovery of the region. Organisation of a major event in Paris will offer the students opportunities to acquire competencies and skills such as leadership, critical thinking, creativity, communication skills and international awareness. The project aims to develop the resources needed to foster innovation for the economic and social development of the Tohoku region.'* Individual local teams often have their own objectives to participate in the OTS project : going to Paris, community building, revival of the agricultural and horticultural industry, re-engineering of the fishing industry, etc.

A project-based approach to the organisation of the Paris event is used as a methodology to engage students to take initiatives. During the project they face problems and there are no set answers to the problems the students/issues the students identify. There are no manuals for teachers or students to organise such an event, so together they must think and find solutions

Principals, teachers and local leaders stressed the importance of nurturing students to become leaders who contribute to the recovery and renaissance of their villages and cities. Some see the OTS project as an ideal tool to nurture talents.

The local OTS teams : No one size fits all

The local teams (or event teams) are a diverse lot! Some teachers and students come/came from junior and senior high schools, students have been selected through different channels (student councils, student summit, members of extracurricular clubs, etc.), some teams are embedded and integrated in schools while other teams have few links with schools, local leaders can be teachers or members of school boards or community leaders, involvement of principals of teachers can be limited or strong and in some cases there is strong opposition against the OTS project, support in the schools for the teams may be weak or strong and the teams may have different objectives. And some students and teachers have left the schools where they joined the project.

All teams look different. But all students and their teachers feel they are on a mission : overcome disaster, chaos and death and contribute to recovery , renaissance and community building.

Community building in Togura : a joint effort of adults and students

Most local teams are embedded in schools or have links with schools. The Togura team looks different as it is very much a community team.

Togura, a fishing community was particularly hard hit by the tsunami. 3 consecutive waves

hit the village and the waters reached 35 meters. Houses and the school were destroyed and of the 500 fishing boats only 10% remained. Lots of fishermen stopped business and those who continued shared their equipment. And they are very proud of their collaborative scheme.

The disaster created a sense of urgency but business as usual was not an option in the current situation! The old fishing industry had been destroyed and they started re-engineering the 3 pillars of the fishing industry : oysters, scallops and seaweed.

Apparently, awareness to re-engineer the fishing industry was the output of discussions between adults and students. The latter encouraged their parents to make a new start.

They have a mission : *Quality will make up for lost quantity!* Quality and size of the oysters and scallops have improved greatly. As there are fewer ships and equipment is being shared among the remaining fishermen, production is limited but more cost-effective.

After the disaster, there was no school left in Togura and students went to distant schools but they were happy to join the adults on fishing trips. The young people enjoyed experiential learning and community building. The adults wanted to give their children a message : engage with the world, improve your skills and show how attractive Togura is. Hence, their ambition to find new markets for their scallops and oysters.

Saving traditions such as the lion dance and rebuilding the community were major challenges after the disaster. The literature on the lion dance had been destroyed but the equipment for the dancers had been saved. Loss of history and traditions was looming but oral history classes helped save the tradition of the lion dance. The revival of the lion dance, which had been dead for a long time, by students stands as a token for the revival of the community and for their resilience to hardship. The dance was connected to death and the past but students want to look forward to the future. The lion dance has got a new meaning in a new setting with old props and traditional costumes and rhythms. The children are a symbol of recovery. And the opening of the new elementary school was an emotional moment.

The Togura students will perform the lion dance in Paris as a token of recovery and rebirth of their community. And finding new markets for their scallops and oysters will seal the recovery of the fishing industry.

The lion dance is just one project in Togura. They also plan to set up an oyster bar but legal obstacles have postponed the project. Students designed a creative menu for the oyster bar. Adults learning from children.

Such community building do we also find in Yanagawa junior high school in Date City. The earthquake and the tsunami did not destroy buildings but students were feeling really bad because the disaster in the Fukushima nuclear plant dealt a severe blow to the local agricultural and horticultural businesses. A delicious fruit, dried persimmon, is forbidden because of radiation danger. The students wanted to do something for the community and helped develop and market a fruit jelly. It was a joint effort of the students and the business community. They joined OTS and in the beginning the prospect of going to Paris was a real thrill but later on working for the community became much more important. They are passionate about their work and want to show the world in Paris what they can achieve in the face of hardship. They want to share their achievements, their passion and their suffering with the world. Participation in OTS has had a great impact on students and teachers alike. But Mr Kakuta, who was a teacher in this school and has been heavily

involved in the workshops, has been transferred to another school and *'still cannot talk about the project to the people in his new school. It is too new! Too tricky!'*

Challenges for local teams

Some local teams have been supported by all local stakeholders : principals, teachers, students and city or prefectural boards.

But for some local teams participation in the OTS project has not always been an easy ride. Continuity among important stakeholders has been hurt by job rotation of teachers and principals, by students moving from junior to senior high school or from senior high school to university. Through job rotation teachers lose badly needed links with the students as preparations for the Paris event depend on their close cooperation. Mr Kakuta, a former teacher of Yanagawa junior high school and a local leader of the Date team , asked whether he disseminated the objectives of OTS in his new school, said : *'I cannot tell the people in my new school about the project. I am too new and it is too difficult for the time being.'* Sometimes there is opposition from parents because they are concerned about their children's future : they want them to focus on their studies, cramming schools, and more particularly, on entrance examinations for university.

In other schools teachers and students have been isolated and the project has not been embedded strongly in the schools because of sheer opposition. The Okuma local team is supported by an NGO as opposition in school against the project is too strong. The principal and the teachers of Okuma high school question the relevance of the project and do nothing to motivate the students who have joined the project. At the start of the project 9 students joined but since then 6 have left. The need for fundraising by students happens to be a particularly sensitive issue and many teachers are hostile to such practice!

Some teachers complain it is often difficult to communicate the value and output of the OTS to a wider audience. The heavy workload of teachers was often used as an explanation for lack of support.

Too often such resistance may lead to isolation of the project and the participants in the local educational community! A local leader from Kesenuma, himself a former principal, said : *'More can be done for OTS at all levels!'* And Mr Nagi, an empowerment partner, had similarly strong feelings : *'In some schools there is strong opposition from principals and teachers. People in the community should support the students.'*

The day to day operation, leadership of the project and communication among the teams in-between workshops and with the wider educational community are major challenges : effective leadership and communication are critical for successful planning of the workshops. Obviously, there are no manuals to help run such ambitious project. Neither teachers nor students have all the answers!

The many challenges are a burden on the management and the logistics of the local teams. Successful preparation of the Paris event and lasting educational outcomes of the project depend on the wholehearted support of all educational stakeholders.

To many educational stakeholders, the OTS project is an uncommon project and happens to be a threat to many established constituencies.

Iwaki City : involvement of all educational stakeholders

The City of Iwaki was hit by the tsunami : some schools were completely destroyed and some students have been scattered all over Japan. But the city can be looking forward to the future as it is not hit by radiation from the Fukushima nuclear plant.

The disaster had a great impact on students and teachers alike and contributing to the recovery of Iwaki persuaded them to join the project. Participating in the OTS was a no-brainer and some of their teachers such as Mr Yoshino are real pillars of the project. The students in the local teams have been recruited from all junior high schools in town. Being a student leader and as such a member of the Student Summit made you a member of the Iwaki team. The objectives and the activities of the Student Summit happen to match the objectives and activities of OTS very well. Currently, the Student Summit supports the construction of a school in Thailand and it has an exchange programme with a school in Korea.

All educational stakeholders are heavily committed to the OTS project and the City Board of Education wholeheartedly supports the project. They understand the general objectives of the project and think it can be very beneficial to Iwaki, Japan and the world. Mr Yoshino, an Iwaki teacher: *'I want students to be responsible leaders for Japan and the world. OTS must contribute to Iwaki as well. OTS can nurture students and help develop skills such as giving instructions and leadership, solving problems without the help of teachers, flexibility, better self-reflection, coordinating skills, ability to plan, creative thinking, etc. Students learn different things and the project gives them a more global perspective. And teachers in the project must leave their comfort zone.'*

The City of Iwaki runs junior high schools and some of the students have transferred to other schools and so have teachers because of job rotation. So coordination of the Iwaki teams is a major challenge. Workshops must be prepared, new teachers must be introduced, events for the Paris trip must be thought out and realised. But students in the Iwaki teams are supported by a wide range of teachers : teacher trainers, pedagogical advisors, principals, etc.

Asked if students had changed during the project was not an easy question for the Iwaki people and the answers were not straightforward. *'Our students have grown a lot over those 2 years. Some of them have grown as leaders but not all should become leaders! Their lives have changed, they can better relate to other people. Talking to different people and learning different things lead to better self-reflection. They feel they can contribute to physical and spiritual recovery. This is a great asset! Disseminating the outputs of the OTS project depends critically on the Boards of Education but it is hard to see whether it is having an impact or can be implemented in regular schools.'*

The Iwaki educational stakeholders are very committed and enthusiast about OTS but communication about the project is not obvious. Colleagues and fellow students are not always interested! Many are unaware of the project. Identifying the impact of the project on teachers or students is not always easy.

Empowerment partners

The empowerment partners are a diverse lot as well: schools, a TV crew, NGO's, companies such as Yahoo, Microsoft and Softbank, a telecom operator. Their role in the project is straightforward : support OTS in different ways. Their motivations are different!

Obviously, students and teachers from the senior high schools in Tokyo and Nara wanted to show solidarity and compassion with their colleagues from the Tohoku area. Student councils and some teachers have been instrumental in joining the project. Mr Futada, a teacher from Nara, and his students joined because Mrs Taguma, who spoke at their school about the OECD activity on Early Childhood Education and Care, was so passionate about the project. *'We want to show we care, even after 2 years. We volunteer for humble jobs, such as logistics during the workshops, so that the Tohoku students can focus on the more important jobs and challenges, such as preparing the Paris event.'*

Obviously, companies support the project because of their commitment to corporate social responsibility. But there is more in their commitment: some are very critical of the Japanese education system. A Yahoo employee: *'Education and training provided through regular schools is not relevant enough. Teachers have all the answers. In companies, identifying and solving problems, creative and communicative skills are very important but students do not acquire such skills and competencies in regular schools. As a company we are involved because the outputs of the project may contribute to better students and better graduates. And we do not want to focus exclusively on technological skills.'*

Mr Nagi, a TV producer, is rather unhappy about the lack of support for OTS among principals and teachers in some schools. *'Often, they are unaware of the objectives and do not understand the value of OTS. They are very conservative. Dissemination of good practice is still lacking, which makes people resistant to innovative projects. OTS should have a larger impact on teaching and learning in schools.'*

Other empowerment partners such as NGO Kidsdoor not only coordinate the fundraising activities but they train the students to have the skills needed to make an impact on potential sponsors. A successful event in Paris is the main concern of this NGO and fundraising is critical to achieve that objective.

OTS and other approaches to teaching and learning in schools

Principals and teachers often compared the project-based approach of OTS to other practices in Japanese schools such as integrated studies, extra-curricular activities and social projects or community service.

According to quite a few teachers and principals, integrated studies is the pedagogical setting where the Tohoku approach could be embedded : *'OTS is an extension of integrated studies.'* Integrated studies have a 2-hour time slot in Adachi senior high school and cover topics such as 'Education for sustainable development' and the 'Scientific study of nuclear radiation'. Students discuss a topic in groups and report to their fellow students. Apparently, in quite a few Japanese schools teachers use a project-based approach but at the same time some are cautious and warn for too much optimism. Many teachers are struggling to adapt their teaching in integrated studies as they are not at all used to innovative approaches. Mr Hidake, the principal of Soma senior high school, is proud about the work of his team in OTS

but warns many teachers and principals are not happy with the OTS. And he wonders if he would find enough teachers who volunteer for an OTS approach in their integrated studies. *'Japan has not changed after the disaster. But some schools in the disaster area have.'* Moreover, in senior high schools the time slot for integrated studies is often used to prepare students for the university entrance examinations. Only teachers with a rich repertoire of teaching techniques may embed the Tohoku approach in the integrated studies.

Other people compared the OTS approach to what was happening in extra-curricular activities or social projects. Quite a few schools engage in care activities for the elderly, working with disabled children, working in companies and shops as part of career education. Giving students a real life experience is an explicit objective. OTS has strong international features and can as such be compared to international activities in schools and student summits : raising awareness for developing countries (e.g. supporting the construction of a school in Thailand) or through cooperation with JICA (Japan International Cooperation Agency).

Some principals in the OTS project would want participating students to share their experiences and teachers to implement the OTS approach into their daily practice. Mr Watanabe, principal of Adachi senior high school: *'I do hope students share their experiences and what they have learnt. I do hope to implement the OTS approach in my school: make it happen in my school. Teachers should teach in such a way as to encourage students to think for themselves, identify problems and solve them. To make this happen, teachers must be trained. But I have no idea what kind of professional training they need. I could organise such training but I have no idea how! Encourage teachers to try out new solutions is not impossible.'*

Communication and dissemination of the OTS approach among principals during meetings at the prefectural level looks difficult as *'colleagues may not be interested and we usually do not talk much during these meetings.'* Any genuine discussion of problems such as the entrance examinations to the university or curriculum reform among principals is difficult. Not only communication about the OTS approach is difficult among headmasters, it is difficult among teachers as well. Mr Kakuta, a former teacher at Yanagawa junior high school and since transferred to another school, cannot tell about the project in his new school. *'My new principal cannot believe it is true we have achieved so much in OTS.'*

Obviously, high quality training for educational leadership in Japanese schools and professional development of teachers must be strengthened.

Challenges for the Paris event

Many would consider the organisation of the Paris journey a logistical nightmare : preparing events in a city almost 6,000 miles away, coordination throughout the Tohoku region of the separate events on the Champs de Mars, fundraising to pay for trips and accommodation, etc. Fundraising is a special challenge for these young students as such activities are not every day practice in Japan. Some educational stakeholders do not want their students to engage in activities where money is involved. Coordination and communication among the local teams and the management teams in-between workshops is critical and time is running out. In a few months' time the logistics of the Paris event must be finalised. And tried out in Japan.

Absence of clearly identified and recognised leadership is another problem. Making this journey a great success is a major challenge by any standard. With the support of external French partners, the Tohoku teams will eventually succeed. A failure would be disappointing for all participants and may have a negative impact on future innovative educational projects.

Outputs and outcomes of OTS

In their presentation, OECD Tohoku School. Educational Project for Creative Recovery through the OECD Key Competencies and Project-based Learning, the speakers, professor Miura from Fukushima university, and Mrs Taguma, a senior policy analyst at the OECD, had a list of expected outcomes for students : *'satisfaction, motivation, academic skills and attitudes (reading, math, economics), 21st century skills (critical thinking, problem solving, collaborative skills, conflict resolution, initiative taking, management, self-efficacy); for teachers : team teaching, authentic assessment, teacher education; for schools : reform of whole school, contribution to the community.'*

OTS is completely new in Japan and at this stage it is difficult to assess whether the project has had a great impact on teaching and learning in participating schools or on teachers. (In the research paper you can find more information on teachers' perception of the impact of OTS on their teaching.) Quite a few teachers told us they have changed their teaching. Their teaching has become more student oriented and more problem-based. They are more respectful for their students and their opinions. Teachers experience they can learn from students but at the same time they are acutely aware there are few such teachers. Quite a few teachers have great ambitions for their students. Mr Futada, a teacher from Nara : *'My students should be able to change the world!'* but at the same time he wonders if *'his students will ever be able to use these new problem solving skills.'* Some teachers are really optimistic and confident the new approach to teaching and learning will be common across schools in Japan.

Obviously, OTS has made a lasting impact on students in the local teams and the management teams and on teachers who have shown leadership skills during and in-between workshops. Again and again, we heard about greater self-reliance, more autonomy and greater independence, better networking among schools, teachers and students, acquisition of 21st century competencies such as identifying and solving problems, collaborating with teachers and students from other schools, communicative skills (students make presentations on OTS for colleagues and on special occasions), taking initiatives, technological skills, awareness of the importance of proficiency in foreign languages, etc. Riku, a student leader from Iwaki said : *'In regular school we have a heavy workload and focus on knowledge transfer is boring. In OTS we learn things we cannot learn in regular school!'*

A local leader from Kesenuma told us *'Boards of Education can do more to communicate the results of OTS!'* At the same time he admitted Fukushima university could do more to disseminate the results of OTS. The launch of the Innovative Learning Laboratory at Fukushima University will undoubtedly contribute to better supporting and monitoring of projects. And better communication.

Professor Kiyomi Akita on OTS.

She is a professor at Tokyo University and a former member of the school curriculum reform committee. She is a critical friend of OTS and in favour of radical change in Japanese schools. She tells us the ideas and objectives behind the project are sustainable and transferable. It is a unique and attractive project. Students participate in the reconstruction of their own communities with their feelings and emotions.

Usually, Japanese students do not actively participate in their own learning but in OTS they do. As such they contribute to reform and innovation in Japanese education. Several features of OTS such as active learning and networking can be input for broader educational reform.

At the same time she is critical of the project.

Not all teachers participating in OTS fully understand the objectives and the value of the project for their own teaching. How to relate the project to their own teaching is a major challenge and they cannot put the project in a wider educational perspective. Building their own learning communities is the way forward for school teams but in OTS she cannot find teachers who feel they are part of such a group. Teachers should document their own teaching but they do not have the necessary competencies to do this. They are too traditional. For a learning community to be effective a minimum number of teachers must be involved. Innovative schools need at least 3 change agents : a strong teacher innovator, somebody who monitors and supports the change process. At the same time, innovative schools must be supported by the principals and the Boards of Education.

Boards of Education are key in the Japanese education system and as such they should fully support OTS and improve its visibility in the local educational community and its sustainability. Too few teachers and parents know about or understand the project. And Fukushima university should take a stronger lead of OTS.

Potential of OTS approach beyond 2014

Mr Kakuta: *'Passion is a driver for change.'*

Outputs and outcomes of a limited project such as OTS are promising enough for this approach to teaching and learning to be continued. Both students and teachers have been learning a lot beyond preparations for the Paris event. And in some places strong links have been established between schools and the local communities. But still, policymakers need a fair and balanced evaluation of OTS as this is critical to identify strengths and weaknesses of the project.

Several options for projects along the lines of OTS can be pursued. They have been listed in the research paper and the pros and cons have been considered: full repetition, smaller scale realisations across Japan, creating a movement or an NGO, establishing a new experimental school or mainstreaming.

Whichever option is being preferred a successful implementation hinges upon some important factors : strong integration in schools, which means full-hearted support of principals, teachers and the educational boards. Universities also have a stake in comprehensive reform but without dramatic changes to the concept and the content of the entrance examinations deep changes to teaching and learning are likely to be doomed from

the outset. Policymakers at the national level, MEXT, and the local level must be at the steering wheel of the innovation along with strong innovators at the level of schools. The objectives for reform and innovation at the national, the regional (City of Prefecture) and school level must be aligned. A sense of urgency understood by all educational partners should accompany a twofold approach : bottom-up and top-down. Innovation supported in a small number of schools by a small number of voluntary teachers/principals is likely to die out after a few years. A comprehensive innovation strategy must underpin any such reform. Development of such strategy by MEXT is critical to have a rationale and a framework for wide-ranging school reform. Moreover, for any reform or innovation to be sustainable, MEXT or Cities of Prefectures will have to invest additional human and financial resources. Without adequate support promising reforms will have a difficult start and may not mature.

A clear and dynamic leadership of any follow-up project is a major pre-requisite for an effective process and successful outcomes. When we asked teachers or students or principals who was leading we got quite different answers. Lots of stakeholders in the OTS project have no idea who is leading the OTS project.

According to professor Kiyomi Akita, for a reform to be successful, you need 3 change agents: a teacher innovator, an agent who monitors the reform and one who supports the reform. Over and above these 3 change agents any educational reform must be supported by the principal and the educational boards at national, City and Prefectural level. Any successful innovation needs critical friends to support teachers and principals. Researchers are part and parcel of these critical friends. And above all : those involved in the reform should be passionate about education.

MEXT Strategic Plan³

MEXT has 4 basic policy directions for the period 2013-2017: *Developing social competencies for survival; Developing human resources for a brighter future; Establishing a learning safety net and Creating vibrant communities based on strong bonds.*

Throughout the document you feel the sense of urgency for Japanese education to contribute to solving major societal challenges : decreasing birth rate and ageing population, globalisation, changes in the workplace, tackling unemployment, Japan's shrinking international presence, reducing disparity, etc.

Throughout this important document the reader can feel the heartbeat of OTS. There are explicit lessons from the earthquake: *'the importance of links between people, communities and countries and of coexistence between humans and nature. Think and act independently based on accurate assessment of circumstances and not to give up.'* The objectives of OTS match really well the vision and mission of the MEXT strategic plan, which may augur well for new projects beyond 2014.

In the mid-term MEXT will have to make decisions based on a fair and balanced evaluation of OTS whether to pursue such innovative projects, what time horizon they get and how to support them.

³ Second Basic Plan for the Promotion of Education. Overview of first section General Statement. Four Basic Policy Directions to Avoid Crisis in Japan.

Policy commendations for educational innovation beyond 2014

The 4th workshop in Tokyo, the questionnaires and the interviews have helped professor Gabor Halasz write an excellent research paper. But as I attended 2 workshops, I think it is useful to make recommendations from a policymaker's point of view : How to move on after the OTS project? Which are the lessons learnt from the workshops and from the many interviews?

OTS may not be a fully-fledged school project, it is an important educational project in its own right, which has the potential to produce important lessons for educational renovation. The Paris event in August 2014 is an important milestone for the OTS project. A successful outcome can be a stepping stone for educational innovation beyond the Tohoku region. To implement major innovations in Japanese schools, legal and organisational roadblocks must be removed and new building blocks must be brought in. Policymakers must identify the most effective tools to continue/implement innovation. And preparations for new innovative projects should start now. Levelling the playing field for stakeholders will increase the likelihood of successful implementation.

1. Launch a fair and balanced evaluation of the OTS

Our research report is only a building block for such evaluation. A research team must identify outputs and outcomes of the project. Did OTS achieve the objectives, did it meet the expectations of stakeholders and policymakers? Which are the strengths and the weaknesses of the OTS approach? The research team should cover the educational outputs but also focus on the contribution of OTS to community building, creative recovery and on willingness in general to implement innovation in Japanese schools. The pedagogical journey to the Paris event should also be the focus of this research, as this event is an important objective of OTS.

2. Create a sense of urgency

Even a very positive evaluation of OTS will not in itself contribute to educational innovation across Japan. A sense of urgency – the threefold disaster – helped launch OTS. Policymakers have no problem identifying urgent societal demands, which high quality education can help solve : ageing population, future skills shortages, skills mismatches, lack of innovation and loss of competitive edge of Japanese businesses, a huge national debt of about 250% of GDP and, until recently at least, poor economic growth. Recent rebounding of economic growth must not lead to complacency.

3. Develop a comprehensive and long-term strategy for education in Japan

Any comprehensive reform effort must fit into the broader picture, hence the need to develop a comprehensive strategy for educational policies and schools. The Second Basic Plan for the Promotion of Education, formulated by the government, is a good start. Its basic policy directions – Developing social competencies for survival; Developing human resources for a brighter future; Establishing a learning safety net and Creating vibrant communities based on strong bonds – and the related 8 missions are an excellent framework to embed reform and innovation. This basic plan is an initiative of the new government but it should be submitted for discussion and debate to the general public. Ownership of the educational community of this

strategic plan is critical for its implementation across all schools. But effective strategic and operational plans for educational reform and innovation must contain : which objectives to achieve, which are the milestones, who can participate, which resources are available, what are the accountability mechanisms, etc.?

4. Build a coalition for change and innovation

Policymakers at the national, prefectural and city level need strategic and operational support if they want to succeed in implementing reform. Obviously, buy-in into the reform effort of the wide range of educational stakeholders is critical. They must agree to support the reform and their involvement in the formulation of such policies will enhance such buy-in. Having school principals (and their organisations) on board is critical to embed the reform in the schools. The same applies to teachers and the unions. Without local ownership of the reform policymakers cannot succeed. During the adult workshop on education reform we met members of networks of teachers for innovation. Such networks must be taken on board of any reform effort.

Networks of innovation can be effective change agents.

But is equally important to have support across all sectors of society. Support and involvement of business leaders will contribute to societal ownership of the reforms. Building such coalition for change in innovation cannot wait until the end of the OTS project. Identifying partners for reform should start straight away and in OTS you can find a pool of talented and passionate reformers. They deserve to be part of any reform project beyond OTS.

5. Create local ownership of change and innovation in schools

In OTS some local teams are not strongly embedded in schools, and students and teachers operate in relative isolation from their colleagues. But OTS has produced some strong and effective student and teacher leaders. They could form the core of a group of change agents who work at the prefectural and city level to support principals and teachers to implement new ways of teaching and learning.

Job rotation has been part and parcel of human resources policies in Japanese businesses and schools. Educational policymakers must consider whether such lack of continuity is compatible with reform efforts. Research stresses the importance of strong local teams for successful implementation of innovation.

6. Lay down a clear leadership structure of the reform project

OTS is suffering from dispersed leadership and a lack of clear definition of roles and responsibilities. Obviously, this was likely to happen as not all stakeholders support the project or have not been involved. Working for the creative recovery, the Paris promise and passionate stakeholders in OTS have overcome the obstacle of dispersed leadership. New reform efforts should be based on effective leadership and responsibilities for all those involved. Steering groups at the national, prefectural and city level must be organised and allocated clear responsibilities. Alignment of roles and responsibilities in a multi-layered governance system will not be easy but involvement of prefectural and city boards of education is needed.

Leadership of OTS is in the hands of the University of Fukushima. This may have been a pragmatic solution for OTS but we wonder if leadership of innovative projects

belongs to the core tasks of a university. Universities may be better at monitoring and evaluating projects.

7. Design a legal and financial framework for innovation in education

Japan faces severe budgetary constraints but sustainable innovation in education is not likely to be achieved without (limited) additional human and financial resources. School teams need expert support and school boards may need change agents. Such support can be provided by teacher innovators seconded from their schools to the prefectural or city boards of education. Selection of high quality innovative teachers is critical for successful implementation of any reform.

Legal obstacles for reform can be removed through the establishment of special regulatory zones. Improving continuity of school teams, and thus reconsider job rotation, should be a priority. Does the structure of secondary education in junior and senior high school facilitate or is it an obstacle to innovation?

8. Engage a diverse set of schools

Participation in OTS happens to be limited to junior and senior secondary schools. A new project should engage elementary schools, VET schools (Colleges of Technology) and special schools as well. Across the world such schools are often on the frontline of innovative pedagogical approaches. Being part of a reform effort with high visibility may enhance the status of VET and special schools. And there is the issue of participation of private schools! Can they participate or can they escape comprehensive reform efforts? School choice is a delicate issue but non-participation of private schools may raise equity issues.

Engage universities in any reform effort as the content of their entrance examinations has a huge impact upstream in secondary schools.

9. Build capacity for innovation

High quality teachers and principals are critical for successful implementation of any reform and innovation and education. Professional development opportunities for teachers and principals, organised by educational boards, are often lectures and genuine discussion among participants is limited. For teachers such activities focus on transfer of new subject knowledge and seldom on aspects of educational innovation. But such professional development activities are related to the curriculum with its focus on knowledge transfer and rote learning. High stakes entrance examinations also focus on knowledge transfer. So universities must be part of wide ranging reform efforts as reforms efforts are likely to be doomed if universities keep focusing on knowledge transfer rather than on a wide range of competencies.

Initial teacher training institutions should focus on new ways of teaching and learning.

10. Keep an eye on high quality education

Preserving high quality education and implementing reform must go hand in hand. But in education systems across the world, very often, students and their parents, supported by teachers, fight educational reforms and innovations. They are afraid they will have a negative impact on quality. Usually, policymakers know many educational stakeholders are weary of changes in the curriculum, in teaching and learning. So preserving high quality and implementing changes is often a high wire

act. Effective communication and involvement of all stakeholders are critical to implement reforms successfully and persuade all stakeholders of the need for reform.