

# STEP

## The Stanford Teacher Education Programme

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This case study is a part of a Hungarian national research grant titled *The Emergence and Diffusion of Local Innovation and their Systematic Impact in the Education Sector*<sup>1</sup>, also known as INNOVA study. For further information and reference to the entire study please see the section *Background on INNOVA research* and the resource and reference section at the end of the document.

### Introduction

The Stanford Teacher Education Program (STEP) is a teacher education course of study at Stanford University in the United States of America. Teacher education at Stanford was established in 1959 with a grant from the Ford Foundation with the aim of establishing an experimental program for educating teachers. The arrival of Professor Linda Darling Hammond to Stanford in 1998 and the appointment of Professor Rachel Lotan to the position of Director started a redesign initiative of the program that resulted in its current structure and features. The goal of STEP has been to develop a comprehensive teacher education course at the postgraduate (master) level that will better support graduates in integrating into schools, being more prepared and having an adequate skillset, as well as more self-confidence for tackling the challenges that classrooms might bring. This case study brings out the main features of STEP, including the innovative elements in comparison to other teacher education courses. Furthermore, as a case study specifically prepared for the INNOVA research, one of the core aims will be to provide an analysis of the programme. In order to do so the framework on innovative practices will be used which will be helpful

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<sup>1</sup> Original Hungarian title: A helyi innovációk keletkezése, terjedése és rendszerformáló hatása az oktatási ágazatban, OTKA/NKFIH azonosító: 115857

especially in exploring the conditions for development of innovative practice and the effects of the educational innovation on the micro and macro levels.

The case study rests on resources and readings available on the STEP, as well as on the interview conducted with Professor Rachel Lotan, Emeritus Professor and former Head of the Stanford Teacher Education Program.

### Understanding the development and the underlying principles of STEP

When Stanford Teacher Education Program (STEP) was in the phase of development the rising concerns for the disconnect between the scholarship and the practice in teacher vocation has been recognised as one of many problems. The gap between the theoretically-burdened initial training and the practical preparedness to enter the classrooms seemed overwhelmingly wide. Additional to that, universities that educate the teacher-candidate had no interaction with the schools that might end up being places of their employment, which seemed as an awful waste (Levine, 2006). Thus, STEP is set on the grounds of four underpinning principles:

- Connection between scholarship and practice
- Strength of the joint work of universities and the schools
- Efforts in addressing equity and excellence programmatically
- Coherence

First two principles set the ties between the university and the schools, from an aspect of connecting theory and practice, but also as connecting professionals in achieving the same goals for better quality education. It is of utmost importance to engage in practice in order to be apart and to pass STEP. This will ensure that the graduate teacher-candidate has the necessary knowledge and practical experience once finishing the course. Furthermore, in educating the teacher-candidate, the university staff is supported by the cooperating teachers, which creates a strong network of professionals working towards a high-quality teacher education (Interview with Lotan, 2016).

Apart from their professional commitment to help in developing and moulding skilful future teachers, the interest of the cooperating teachers also lies in the fact that they have a highly-motivated second adult in the classroom working with the pupils. The teacher-candidate is seen by the school staff, and the teacher-mentor, as a useful resource that is decidedly willing and motivated to learn and can bring new ideas, questions and fresh approaches from the academic (Interview with Lotan, 2016). Thus, this interplay of the two worlds becomes a very useful vehicle for raising the quality of education.

Quality also connects to the third principle which addresses the equity and excellence in education. STEP usually collaborates with the schools that are in need of teachers and in need of quality education. On average, pupils from the disadvantaged school in the State of California are less likely to continue education and more likely to drop out, sometimes without even reaching the end of secondary education. Also, the schools that are “better-

off” will also have more funding and will also be in the position to select and retain excellent teachers. Thus, STEP’s equity principle ensures that those in disadvantaged surroundings get a chance at quality education as well, enhancing the chances of better quality of life (Interview with Lotan, 2016).

Lastly, the fourth principle that looks into coherence; it has been noted that the education today is not the same form or shape as the education 50 years ago. Classrooms are much more heterogeneous and thus the diversity needs to be reflected in the teaching body and approach. Furthermore, there has been a concern within teacher education programmes about the fragmentation of learning to teach, i.e. the university-based learning would include a set of disconnected courses and very often they would have a disconnection to the practice as well (Hammerness, 2006). This being said, the coherent approach to teacher learning in STEP enables teachers not to look at the classrooms as siloed units detached from the rest of the reality, but rather to look outside of the classrooms into a fast changing world and what it means to each student sitting in the classroom. Furthermore, it also tries to tie up courses to each other as well as to the practice, creating a full circle and a coherent unit for the teacher-candidate to grasp.

Historically, STEP also made strong efforts to “diversify the profession of teaching”, in a way of reaching out and providing opportunities to the motivated non-traditional students (for long years the studentship at teacher education was almost completely middle-class, white and female). Additionally, the teacher learning programme needs to hold the principle of coherence as in order to create good teachers, the STEP leaders, mentors and lecturers invest efforts to generate knowledge and synergies between the teacher-candidates that are transferable to the classroom. As Rachel Lotan noted in her presentation (School-University Collaboration for Effective Teacher Learning, Budapest, 2016) as well as in the post-conference interview, coherence is one of the crucial aspects of a good teacher education programme, because learning needs to be logically connected in context of the course work and in context of practical placement. Students will become better and more motivated teachers if they see the usefulness of their learning and practical application of the knowledge, thus this will also enable them to become more in charge of their future learning and, eventually, of better learning experiences for the pupils in schools.

One of the best demonstrations of how STEP tries to diversify and prepare teacher-candidates for the heterogeneous and often multi-ethnic classrooms is captured in Bilke and Bunch (NN) study on the aspects of Cross-cultural Language and Academic Development in STEP. The researchers particularly looked into how STEP supports future teachers to provide instruction to limited English proficiency pupils through introducing them to courses that focus on language, culture and diversity in the classroom. The results of their study, showed astonishing preparedness of the teacher-candidates from STEP programme to tackle the linguistic issues and openness to understand diversity and otherness (Bilke and Bunch, NN).

### Main features of STEP

In practice, STEP is a 12-month intensive post-baccalaureate programme licenced by the State of California. With the credential received at the successful end of the programme, graduate teachers have a preliminary licence to work as teachers for 5 years, which also gives substance and trust to both the employee and employers. After 5 years and series of evaluations, the licence can become permanent. The cohorts are relatively small, however next to the highly qualified teaching staff, teacher-candidates are supported with the net of cooperating teachers. The mentors are practicing teachers from the collaborating schools, and the teacher-candidate engages with their mentors in a sort of an apprenticeship from the very start. Actually, engagement with the collaborating school starts very early on – the first week at the start of the program in the summer quarter; STEP usually begins on Monday, and in the first week the teacher-candidates get acquainted with the programme and the content, which also includes the first visit to the school on Thursday and setting their classroom space on Friday. The following Monday, the teacher-candidates are usually already in their respected classrooms doing their field work accompanied by their collaborating cooperating teachers (Interview with Lotan, 2016).

On average, the teacher-candidates have around 20 hours of field work per week, while the rest is academic work and lesson preparations which takes place usually in the afternoons and evenings. The joint of two curricula, academic and clinical, is overseen by the university supervisor in continuous meetings with the teacher-candidate but also through quarterly visits to the school of practice. This provides a thorough overview of the progress in the teacher programme, with the goal to integrate theory and practice, thus connecting five elements together (Levine, 2006):

- Social and psychological foundations of education
- Curriculum and instruction in the content area
- Language, literacy and culture
- General pedagogical strategies
- Practicum and student teaching.

This ensures a more comprehensive and integrated approach to teacher education, supporting teacher-candidates to experience classroom environments early as possible. At the beginning of their practicum, teacher-candidates usually get involved with helping out in small-groups, supporting the mentor-teacher in mini-lessons and in new ideas for the curriculum, while as their practical placement progresses they get involved with more substantial tasks and inevitably with leading entire lessons (Levine, 2006).

As mentioned above, STEP is embedded within the postgraduate licenced programme of the State of California. As such, the legislative context that binds any academic and professional programme is proposed by the California's Government Commission on Teacher

Credentials.<sup>2</sup> The Commission makes sure that every teacher education programme happening in the State of California has been accredited and follows a pre-defined quality standard. While talking to Professor Lotan about this particular component and how it reflects on STEP and on teacher education in general, she stated that these quality standards and high expectations are generally a positive thing for both practicing and soon-to-become teachers. They strengthen the profession and make sure that the schools get the best that academies can produce.

Of course, this implies that California laws and the accreditation system is actually concerned to the best in education and is developed by professionals who understand both the nature of teacher education and the needs of the schools of tomorrow. Finally, Lotan mentioned that, even though changes and constant development of the credentials for the teaching profession might be useful for the profession, not all changes are seen as beneficial for the STEP programme. For instance, prolonging the post-baccalaureate to an additional year might not be sustainable for a programme such as STEP, which is already a rather intensive and expensive degree. Therefore, instead of extending the duration of the degree, STEP officially acknowledges prior-learning of the teacher candidate giving credit to knowledge and skills acquired in various, formal and non-formal learning situations.

At the institutional level it comes without saying that programmes like STEP require tremendous support from both leadership and professorship at all levels. As Rachel Lotan mentioned, at Stanford there was a point at which the president officially stated that preparing teachers is as important as preparing engineers and doctors. This significant stand was supported with resources and funds, which legitimised the statement and gave a serious push to developing a great quality programme for teachers. Lotan used an example to illustrate the commitment of the leadership that was crucial for getting STEP where it is today; an elderly graduate of Stanford decided to donate a larger sum of money to the university and with this proposal, the president of the university made a commitment that this sum will be doubled by Stanford funds and with everyone's agreement donated to the Teacher Education programme. This large investment had made many things possible, such as hiring best teacher educators in the country and providing "forgivable loads" to the best student candidates. At large, these elements were of crucial importance in making STEP one of the best teacher education programmes in the US and wider.

### [Innovative elements and INNOVA perspectives on STEP](#)

#### [Background on INNOVA research](#)

The Emergence and Diffusion of Local Innovations and their Systematic Impact in the Education Sector, also known as INNOVA study, was developed with the aim to investigate the theoretical backgrounds of development and diffusion of micro-level innovations and how they impact the macro-level changes within the education systems. The study pushes

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<sup>2</sup> <http://www.ctc.ca.gov/>

towards identifying core factors crucial for innovations to happen, as well as spread further changing the overall practices and learning environments. Hence, INNOVA study was set to examine:

1. The conditions and processes that lead to the emergence of local (school/department level) innovations improving the effectiveness of learning environments and student learning
2. The conditions of the diffusion of such innovations
3. The ways these innovations influence the macro level effectiveness of education systems.

Thus, the results of the INNOVA research are intended to raise better understanding of particular features under which innovations develop, as well as those elements that enhance and trigger their horizontal diffusion. Further conceptual foundations and questions, as well as the provisional theoretical background can be found in the research proposal.

Yet, it is significant to note that part of the INNOVA research included a development of 12 case-studies from the Hungarian national context and additional batch of international examples that will help widen the analysis and understanding of innovations in education. The case study selection portrays successful institute-level innovations which have considerably marked and changed educational landscape and enhanced learning at different stages. The selection includes innovations at all educational levels, from kindergarten to adult learning, encompassing provisions of novel instructional, technical, conceptual or institutional innovations in education at large.

The case studies have been written using a pre-prepared analytical framework. The framework supports the INNOVA research on two levels; in the first instance the analytical framework identified the main fields and research aspects that each case study has had the aim to cover and look into, while in the second round, the framework serves as a comparative tool that will demystify aspects of innovation and diffusion of innovations common to different context and examples.

One important element of the INNOVA analytical framework which needs to be mentioned here is the development of typology of innovations, thus creating a structural classification under which the case studies can be analysed with more depth. The following table portrays this typology and provides definitions for each of the innovative types:

Type	Definition
Type I	Innovations under the direct influence of <b>external public</b> development interventions (initiated, promoted, imposed by national governments or other public agencies etc.)
Type II	Innovations produced under the direct influence of <b>external non-public</b> development interventions (initiated, promoted by charities, academic, private entrepreneurs, civil organisations, professional associations etc.)
Type III.	Innovations produced <b>internally</b> by individual teachers or teacher

	communities within a specific educational institutions based on their own invention or on their own decision to adapt an existing new solution without coordination with the original initiator
Type III/A:	Totally <i>internal</i> , based on <i>conscious internal experimentation</i>
Type III/B:	Totally <i>internal</i> , based on <i>ad hoc search</i> of solutions to problems faced in practice
Type III/C:	Innovations stimulated/inspired by targeted, specific purpose external development interventions but initiated internally without coordination with the original initiator
Type III/D:	Innovations stimulated/inspired by <i>open, general purpose innovation platforms</i> operated by external agents (e.g. in the framework of collaborative networks aimed at school improvement, school-university partnerships)

This typology, along with the definitions that it provides, was used for examining STEP in this case study.

#### Innovative typology and features of STEP

According to the INNOVA typology, the case of STEP can be classified under type III, as an innovation produced internally by individual teachers and educational professionals within a specific educational institution. STEP was based on an intervention that was decided upon within the Stanford teacher education department and it contained a solution to a problem that was previously identified. Specificity of STEP however is that the innovation also contained elements of borrowed practices from other fields, namely from the health science. Adoption of clinical practice, as well as “professional development schools” that shall be further elaborated below is a definite component that exists in other fields and was appropriated to suit STEP purposes. This being said, it seems STEP can fall under both type III/A and type III/B as an intervention that has had a factor of internal experimentation but has also relied on seeking for solutions to problems faced in practice.

Furthermore, additional discussion can be raised in terms of how partner schools might view this innovation. The change in the post-graduate teacher education was initiated by the academic community at Stanford University and has allowed the space for creation of university-school partnerships. Even though the innovation in itself was done internally for Stanford, it triggered great number of changes for schools involved. Most significantly, schools have become an equal contributor to shaping and developing future teachers. Yet, seen from the school perspective, this innovation might be described as type II, since it was produced by a direct influence of the external non-public actor, in this case the Stanford University.

However, to reach the implementation point, it can be said without a doubt that STEP had a number of favourable elements that supported its development. As mentioned just above, the determination and commitment of the leadership makes for a large part of this support, and right after this is the monetary backup that STEP received which enabled additional advantages in gathering a team of great professionals and attracting the best student

candidates. These two alone also upgraded the image of teacher education within the institution, the community and the world around.

It is as important to mention that STEP had, and still has, a committed and quality-driven management that formulates the course to gain the most out of a one-year engagement. Benefits of having world-recognised academics with years of teacher practice among the leaders of the programme is a definite enabling factor for a successful teacher education programme. Furthermore, collaboration with the practice schools, their management and staff needed to be set strong and functional from the very beginning. The core of STEP is in its practical, hands-on aspect of educating the future teacher, thus without the willingness and openness of schools, as well as academics, to the idea of joint, collaborative training design would be absolutely impossible.

Even though there are many small significant factors that make STEP unique, there is a support structure minimum that can help reaching towards a good teacher education (Darling-Hammond, 2012):

- Trained, skilled evaluators with deep knowledge of teaching and learning
- Supports, including mentoring, for teachers needing assistance
- Governance structure that enable sound personnel decisions
- Resources to sustain and monitor the system.

Thus, the programme as complex as STEP rests on the quality and support of devoted evaluators and top academic staff, school management and teacher mentors, as well as strong and committed leadership, and the involvement and motivation of the student candidates. Each student at STEP is surrounded by a helpful mechanism that makes her/him strive to achieve the best possible for the course, the pupils at the practice school and themselves in terms of their teaching career. In order to maintain this level of quality and commitment, there is a constraint in terms of numbers of teacher graduates that STEP produces annually. Due to the highly personalised instruction, STEP cannot grow beyond 100 students per a cohort. From the outside, this is often seen as a weak point of the programme, especially since other teacher education post-baccalaureate courses educate over thousand graduates per a cohort. In such comparisons, STEP is regarded as a small and very specialised, high quality and well-funded course that makes a difference in enclaves where it operates (Interview with Lotan, 2016).

#### [The element of “clinical placement” and professional development schools](#)

Within the teacher education sphere, the Stanford Teacher Education Program brought an institutional framework of the so called "clinical placements". The main innovative feature of this framework, as hinted before, was to recognise schools as partners to the university, both in terms of practice grounds for the teacher-candidates and as equal partners in university curriculum design for the future teachers. The notion of "clinical placement" was borrowed from other disciplines, such as medicine, where the university students have an

important practice element integrated to their formal university education. The practice in example of medical students happens in hospitals (known as practice hospitals and teaching hospitals). Similar to this concept, STEP introduced its "clinical placements" for all the teacher student candidates as an obligatory part of the education programme. This meant organising and establishing a strong network of schools that would collaborate with Stanford university and provide a high-quality mentoring opportunities for the students of STEP. In return, the schools would gain a "free", high-motivated young future teacher eager to learn and to deliver a good practice. Having in mind the benefits for both schools and students, the STEP programme targeted those schools most in need of quality input, usually in disenfranchised areas and with pupil population from socially and economically disadvantaged backgrounds.

The "clinical placement" aspect made an enormous change to the programme since it connected students to the real context and had managed to "increase ownership of planning, instruction, and assessment in the clinical placement cumulating in independent student teaching" (Lotan, 2011). It also enlisted teacher education among the progressive wave of dual programmes worldwide – university degrees at bachelor and master level that have an obligatory practical component in term of an internship, practical placement or other type of work-based learning. Especially in the more entrepreneurial disciplines this has been flourishing under university-business collaboration (i.e. the triple helix of Etzkowitz, 2008), with just recently expanding to other types of collaboration between academia and public sector stakeholders.

To take a step back and look into how the Institute for Education at Stanford made the journey, it is valuable to mention that as in many other cases back in the 1960s teacher education was largely considered as a vocational or professional school that had one specific task of preparing people for teaching profession. In the early 1980s, expansion of the intersectional and inter-disciplinary research triggered a more open communication in the field of education, and people from different disciplines such as sociology, economy, public policy research, psychology and so on came to the table with the teacher education professionals. The tension between the disciplines that have a strong scientific core and teacher education that was considered as more practical profession had loosened for a bit, even though they still persist (interview with Lotan, 2016).

Joint interdisciplinary research in teacher education set off an example and invoked the importance of common agenda in educating teachers. Nevertheless, according to professor Lotan the change was, and arguably still is, travelling with a very slow pace. Arranging a marriage between academic research and teaching in practice takes a lot of negotiation, efforts, convincing and ultimately it depends upon the willingness of the parties involved. In case of STEP, a realisation that something needs to change came once the leadership of the Institute of Education noticed that the student body there was largely white, middle class

and female. At this point the programme developed scholarship opportunities for excellent non-white candidates.

Even though well-intended, this initiative did not produce good results at first. Rachel Lotan remembers students complaining and re-creating the same racial divisions as in the schools across the country. The backlash of this attempt to diversify the programme was so severe that in the early 1990s there was a plausible possibility of closing STEP. Yet, what seemed to be the problem was that, similar to the issues in K-12, the teacher education programme did not receive the appropriate pedagogy and appropriate instruction thus resulting with disappointment and aggravation. A solution came once the few of the highly respected experts came together and supported a change. Namely, Linda Darling-Hammond was brought on board to help develop a strong model for the teacher education, in collaboration with Rachel Lotan who by the end of the 1990s became the director of the programme. Furthermore, the strong support came from the new dean of the Institute of Education who was much in favour of the changed system (interview with Lotan, 2016).

Once STEP had set its stronghold with undivided support from key players, the programme leaders started working on the student body. As mentioned before, some of the issues among the teacher candidate cohorts were similar to those seen in the K-12 classes, namely strong ethnic and racial divisions, discrimination and overall lack of group coherency. To resolve this, an element of groupwork activities was introduced to the teacher education programme. Thus, similar to the approaches that have been used in elementary and secondary schools to solve lack of group coherence, future teachers were expected to collaborate and work together in order to pass the exams. Soon the element of actual practice changed all of it. Groupwork as a pedagogical approach was thus used as a strategy for understanding and coping with heterogeneous classrooms (Cohen and Lotan, 2014). In case of STEP it actually worked miracles, as groupwork supported reaching intellectual and social goals, promoted equity in a very diverse group in schools, hence it was also reflected in discussions within the teacher-candidate lessons and sessions, and it helped the teacher-candidates have more confidence in managing classrooms (Cohen and Lotan, 2014).

Furthermore, the change and evolution of STEP towards a strong dual programme would not have been possible without the element of collaboration with schools. This has been seen as an innovative aspect of teacher education especially since on average teacher education programmes have rather limited practicum component. STEP prepares future teachers in direct collaboration with local-schools that serve an extremely diverse population. These schools have been named also professional development school (Stanford University's Partnership Schools Initiative, p.1) and have been described as similar to teaching hospitals – able to “develop and demonstrate leading edge practices while training novices and supporting the development of veteran teachers and administrators”.

Whatsoever, the professional development schools were an intentional goal for the Stanford Teacher Education Program in its development path towards an outstanding teaching degree, and have thus emerged by responding to issues of continuous challenges in teacher education coherency and pressing stresses in providing better education for the near-by communities. The goals that were set included (Stanford University's Partnership Schools Initiative):

- To develop a coherent programme organised around professional standards and a common vision of good teaching
- To strengthen knowledge about how to teach challenging content to diverse learners
- To support links between theory and practice through tight connections between students' coursework and clinical work
- To contribute to the re-shaping of local teaching and schooling by creating powerful opportunities for student and teacher learning

The collaborative work and willingness of schools and universities to open up to the opportunities that joint efforts might bring were of crucial importance and success aspect for the STEP programme.

#### Outcomes and evidence of success

The strongest indicator for the success of the Stanford Teacher Education Program is the ratio of teachers' retention as well as their continuous ambition for the vocation. According to the fact sheet from 2014, "nearly 80 percent of STEP graduates are still teaching five years after completing the program" and almost the same amount remains in the profession even after 10 years (Stanford Teacher Education Program: Fact Sheet, 2014). Contrary to that, the overall US data shows that around 60% of teachers leave their workplaces within 5 years. In Levine's (2006) exploration of exemplar teacher education programmes it is cited: "graduates show that at least 90 percent felt more adequately or better prepared on 27 of 36 dimensions of teaching. More than 7 out of 10 gave such ratings in every area" (Levine, 2006, p. 99). Furthermore, the STEP programme has received praise from different global actors such as the Center for Teacher Quality's report and Woodrow Wilson National Fellowship Foundation (Stanford Teacher Education Program: Fact Sheet).

The more immediate successes are also evident through the high rate of employability of STEP graduates and, according to the data collected from the alumni survey and STEP records, there is a nearly 100 percent job placement rate (Stanford Teacher Education Program: Fact Sheet). Employers are usually very satisfied with the preparedness of the graduated teacher-candidate, and they have a huge advantage over virtually all other candidates. Their main strength is considered to be the intensive practical training that interacts with their academic achievements. Thus, the graduates demonstrate that they already know the context and their challenges, placing them in the front-run. Furthermore, in case of the STEP partnering school and according to the internal evaluation mechanisms, around 95% of the schools have reported that the teacher-candidates were well prepared

and would likely get hired. The principals note that they are confident that with hiring a STEP-trained teacher they feel confident that they will hire a lifelong learner and a staff member that is highly dedicated and passionate to teaching and empowering children (STEP Alumni Mashup).

As for the impact of the effectiveness, following the four basic principles, and in particular the devotion to equity, STEP focuses its efforts in connecting to the schools most in need. The selection of these partnering schools is based on several criteria, including the student demographics, quality and potential of instruction, administrative support and mentoring potential. The last one is particularly important, especially for the quality of the teacher-candidates' development, since good teaching and good mentoring are not taken as the same (Interview with Lotan, 2016). Furthermore, returning back to the issue of equity, the mere fact that the implementation of STEP as a high-quality teacher programme is done in disadvantaged schools indicates the intentions of contributing to the quality of education in general.

Finally, it is also interesting to point out that following solely conventional and traditional evaluation based on scales and numbers might not successfully render the essence of the programme. In the interview by Fitzpatrick (Fitzpatrick et al, 2009) Fetterman says how it was "scary" to understand that "most evaluations rely so much on surveys. If you don't supplement this, you can have a really false perception of the quality of the teaching in the program. When you interviewed and observed classes, you can see the full spectrum of instructional quality" (p. 104). Even though the focus of the interview by Fitzpatrick was on array of different evaluation techniques, the case of STEP was used to present how much it is necessary to also include the more statistically invisible aspects of appraising a teacher education programme. Fetterman who as described in Fitzpatrick et al (2009) made a combined traditional and empowerment evaluation of STEP concluded that it was of utmost importance to understand what were teacher-candidates going through on day-to-day basis and how they evolved of being confident and committed, thus to unlock the culture of the teacher education programme at Stanford. Initially, it was actually Fetterman's report that initiated the redesign of STEP and the recruitment of Linda Darling-Hammond and Rachel Lotan to the director of the programme. Prior to that, STEP was not as strong as it is now, in fact it was rather in a bad shape for a variety of reasons.

Returning back to the INNOVA study focus, there is an accord to the importance of truly comprehending the teacher-candidate experience that in case of STEP is made up of many small perfectly-fitting elements which even if they might not seem extraordinary, in its entirety they represent an innovation in teacher education today.

### STEP as an example of good practice

One of the unique features of the STEP programme lies in the difficulty of reproducing and replicating it. It truly exists as it is only within the context it currently embeds, thus borrowing the entire practice and purely copying it to another context seems not feasible. When talking about this, Rachel Lotan admits that perhaps due to the success of the programme, many visitors and external parties, educators and colleagues around the world, like to see STEP as a model they can perhaps to an extent transfuse to their realities. In her own words, Lotan approaches these with caution, making sure that everyone gets a good understanding of their context and an excellent comprehension of STEP in order to take the most, or just what is possible, and replicate it into another setting (Interview with Lotan, 2016).

Therefore, one of the low points for the STEP programme in its entirety is its uniqueness and inability to be diffused as such. Yet, the underlying concepts, elements of good practice, useful advices and hints towards creating a better teacher education programmes across the globe have been taken forward. In fact, STEP leadership organised a seminar titled iSTEP that gathered professionals around the world to Stanford in order to present and share experiences of educating new generations of teachers. This event was helpful for disseminating the STEP concepts but also for learning about other educational context and what could be done to make them better.

Yet, as Lotan mentioned, STEP as a teacher education programme has to be observed as unique even though it can serve as an example, or a model. In comparison to other programme, STEP has a very limited number of candidates which makes it incomparable with universities that have several thousand graduates per a cohort. Rachel Lotan drew the attention to a really demanding network of professionals that nurture each student which, along the funding and investment per a student, makes STEP difficult to replicate. Nevertheless, it is rather evident that teacher education at Stanford can survive hardship and turbulent times, and transform into an even better programme. The healthiness of the institution as well as of the leadership is evident through battling obstacles and its fitness to survive and transform. Finally, there is the element of funding that Stanford Teacher programme had been traditionally successful with, especially with the top Stanford leadership being proactive and very committed to upgrading the teaching profession to the levels of other equally important, such as engineering.

### Summary and conclusion

The main aspect of the STEP programme is in its conceptual platform that empowers academia and practitioners to build a common learning ground for the future teachers. This is the most significant characteristic of STEP as the innovative practice in teacher education. Once dissected, the STEP programme can be analysed from the perspective of opening up universities and in particular teacher education degree programmes. The evidence of STEP

success provides a strong case for including clinical placement as essential part of initial teacher education, thus enabling students with the skills and knowledge that are usually tacit and difficult to gain in theory-only degree programmes. Furthermore, STEP can be observed from the perspective of endless possibilities that the collaboration between academia and practice can bring; predominantly this means a more comprehensive training for the future practitioners, but also better employability rates for the graduates, benefits for the schools and children of having two adults especially in the disenfranchised communities and an overall sharing of new ideas that enhance prospects of further innovation within the teaching profession.

The weakest point for the analysis might be the diffusion feature, as according to the interview and to the further documented evidence, it is very difficult if not impossible to spread and replicate the exact model with all its accompanying feature to any other context. Yet, the model has the conceptual background with main features elaborated above that can be accommodated to educational programmes worldwide regardless of the specific conditions. Therefore, institutional collaboration is one such critical element that can be seen as a good practice example. Considering that the leadership of the teacher education programme is interested in developing the course to a higher level, there are very few boundaries of making the institutional ties with schools in need of additional personnel, and with a capacity of becoming the “teaching school” – a school that provides mentoring opportunities for the prospective teachers in training. As it was noted above, this requires the leadership of both institutions, as well as the academic lecturers and school teachers to move away from their prejudices about each other and move closer to a more respectful collaborative engagement. In what professor Lotan has described, it has been (as still is) a thorny path for Stanford, therefore it is quite expected that such collaborations are not easily established and dependable on a strong willingness of institutions involved to shift that can accommodate a good outcome for teacher-candidates, schools as communities, pupils and to the quality of the degree programmes.

### References and resources

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