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Breaking the consensus in educational policy reform?¹

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Abstract: The paper contributes to the debate on the implementation of policy reforms developing a typology for implementation based on the initial agreement on means and goals at the time of reform design. It is argued that the volume and nature of knowledge gathering and stakeholder involvement required to gain approval of a policy and avoid the possibility of implementation failure should differ depending on the initial level of agreement, providing thus a more nuanced view on the importance of these factors than previous work. The argument is illustrated through a case study of the 2004 reform of the Mexican Technical Baccalaureate. This case study shows how knowledge gathering and stakeholder involvement affected both the design and implementation of a reform process and how political, social and cultural factors shape reform processes.

Keywords: educational reform; Mexican Technical Baccalaureate; México; policy implementation; secondary education; stakeholder involvement; vocational education

Introduction

There is substantial evidence about the difficulty for policy change. Change most often alters boundaries of responsibility, winners and losers and ignites conflict, dissent and resistance (Grindle, 2004). This has paved the way in recent times to the generation of a sizeable body of institutional path dependency analyses that focus on the lack of policy change even in inefficient situations (Pierson, 2000). Thus, substantial policy failures do not only refer to high degrees of local re-interpretation and significant differences between the 'text and action' (Ball, 1994) but also to the non-adoption of a text to be enacted in the first place. This is particularly the case regarding reforms that address educational quality, such as the Mexican 2004 Bachillerato Tecnológico (BTe) reform analysed in this paper. Reforms that address access issues have different political economies compared to 'quality' reforms. Access reforms can appeal to the population as well as education professionals and have additional budgetary allocations and education-related jobs attached to them. By contrast, quality reforms that deal with standards, poor management and inefficiency and try to break professional patronage are more difficult to enact successfully (Grindle, 2004). The Latin American context has, moreover, been traditionally seen as particularly unfavourable for such reforms. In Mexico in particular there has been a strong prioritisation of reforms that seek educational expansion rather than improvements in quality (Schmelkes, 2008). How can we, then, explain quality-related educational policy reform processes?

This paper contributes to the debate on the design and implementation of educational policy reforms by developing a typology for policy design based on the initial agreement on means and goals. Comparative politics have explored how complex interactions of interests, institutions and ideas result in different types of change (Hall, 1993). More recently there has been an emphasis on how reform processes can affect interests and ideas to bring about change. If there is some agreement in the literature on how reforms should, ideally, be introduced, it rests on the argument that stakeholders should be involved at all levels of the reform process. It is often argued that this permits stakeholders to share ideas and to better reflect their interests in the policy-making process. Stakeholder involvement, in turn, is expected to result in the improvement of the quality of reforms, their openness and the stakeholders' commitment in implementation (Kasperson, Golding, & Tuler, 1992; Rowe & Frewer, 2000). Stakeholder involvement, moreover, should occur as soon as practically possible (Middenford & Busch, 1997) and encompass all relevant stakeholders. Stakeholder involvement also brings, it is further argued, valuable knowledge into different aspects of the policy design.

The expectations of some stakeholders can, however, often be highly unrealistic and thus the argument presented here is against the 'tidy generalities' outlined above. Instead, the paper contends that the volume and nature of knowledge gathering and stakeholder involvement required in order to avoid policy non-approval and implementation failure depends on the initial level of agreement over policy goals and means. As such, it hopes to provide a more nuanced view on the importance of these factors. It argues against much of the policy literature (cf. also Grindle, 2004), that governments in Latin America have substantial scope for singlehandedly pushing reforms, under certain conditions outlined in the next sections, at least in the early stages of policy-making, before adopting a more consensual approach as the reform process evolves. It also shows how it can be rational for governments to ignore extensive knowledge-seeking in favour of more practical approaches.

The paper is structured as follows: section two briefly outlines the methodology for the study; section three gives an introduction to the process of educational reform. Section four describes the BTe reform and sections five and six discuss the use of knowledge and stakeholder involvement in policy implementation respectively. Section seven presents my conclusions.

Methodology

The paper is based on a literature review and 12 semi-structured face-to-face interviews. The interviews undertaken, although necessarily limited, covered the main stakeholders of the BTe reform. They enabled triangulation of results with the literature review (as recommended by Hammersley and Atkinson [1983]) and also enabled the information gaps detected during that review to be filled. Conducting the interviews after the literature review moderated my judgment over the statements of interviewees and reduced the reliability problems that can be associated with elite interviewing (Berry, 2002). Four interviews were undertaken with policy-makers from the Mexican Education Ministry (SEP) and Mexican States, one interview with a teacher union representative (CECYTE), two with large employer representatives (CONCAMIN, COPARMEX), three with researchers (two from ANUIES –the National Association of Universities and Institutes of Higher Education, who were involved in the implementation of the reform, and one from the Universidad Autónoma del Estado de México) and two with teachers (from a BTe school in México DF). Interviewees were selected for their leadership positions in their organizations and their implication in the reform. Interview and document data were analysed through coding in pre-established categories related to the main questions of the research. This was not done as disjoint processes, but as data were collected (Tsech, 1990). This ensured that interview topic guides could be adjusted to explore issues identified in preceding interviews (Stevenson, 2007).

The empirical part of the paper is based on the analysis of a single reform process. Much of the argumentation presented would benefit from further analyses that make use of the framework employed in this paper to analyse educational reform in other contexts, to refine and modify its conclusions –which can be considered as somehow tentative – as appropriate.

The process of reform

The literature that addresses policy implementation has been developing rapidly (cf. e.g. Barret, 2004; Hill & Hupe 2002; O'Toole, 2004; Sabatier, 1986; Sinclair 2001), with each contribution providing new insights and highlighting shortcomings of previous research. Much of the work in this area has tried to explain 'implementation gaps' and abundant policy failures (cf. Gunn, 1978; Lipsky, 1980; Pfeffer, 1992). Many of these studies have followed in the wake of Pressman and Wildavsky (1973) who argued that the chances of success of any government reform initiative are indeed slim and have a significant failure bias. Moreover, some observers consider that policy failure due to non-implementation or unsuccessful implementation is getting worse. Murray (1984) thus asked under what conditions can policies be approved and implemented and why we should bother with public policy at all. These are still relevant and important issues. An indicator of the extent to which government officials are interested in the topic is attested to by the many reports on implementation they produce and fund (cf. also Hill & Hupe, 2002). From a theoretical point of view the interest remains as we are not even close to a well-developed theory of policy implementation, in spite of the progress that has been made (Saetren, 2005; Winter, 2003).

A key point is where to start this work. Pfeffer (1992) argues that until we are willing to come to terms with organisational power and influence, and admit that the skills of getting things done are as important as the skills of figuring out what to do, our organisations will fall further and further behind. In other words, what counts is how to figure out what to do (where knowledge can provide crucial support) and how to obtain sufficient support to get it done (where stakeholder involvement is of paramount importance). Once the complexity of policy as text and action, knowledge and support is accepted, the question remains on when policy-makers and the wider public will, first, obtain a text and, second, develop a match between the policy actually implemented and the intentions behind the text.

In relation to the first question, the standard argument is that the likelihood of a successful outcome, defined as the enactment of what is desired by the policy initiators, will be increased if thought is given at the policy design stage to potential problems of implementation. This suggests a 'need' for a thorough policy impact assessment or audit of some kind to identify possible implementation problems or barriers to success. The general regret is that policy-makers do not make greater use of research.

In relation to the issue of stakeholder support, 'top-down' versus 'bottom-up' perspectives on policy and action are at the heart of discourses on policy implementation (Barrett & Fudge, 1981). 'Top-down' approaches are characterized by a strong focus on the formal centre of decision-making and how policies are implemented after a process of central design. Top down models consider policy as hierarchical and linear and look primarily into how to maximize the translation of policy objectives into practice (Fitz, 1994).

'Bottom-up' approaches, by contrast, emphasize the importance of 'street-level bureaucrats' (Lipsky, 1980) and local organizations for the re-interpretation of policy and the success or otherwise of policy implementation, as the agents that are closer to the policy target groups. The interaction of such agents with these target groups ultimately determines to a large extent the nature and shape of policies. Policy failure thus can occur when policies are imposed from the centre, with no thought given to how they might be received at the local level (Saetren, 2005).

While useful as ideal models, policy-making is much less clear-cut than these arguments may suggest. Different types of policies, or the same policy facing different conditions, may thus require different degrees of knowledge gathering and stakeholder involvement for a congruent relation between policy texts and policy actions. Policy typologies can help us to understand the nature of these varied implementation processes. A good deal of policy is meant to be about reaching agreements and finding compromises, but the starting-point to achieve this varies depending on the specific policy. Many contemporary political issues, for instance, can be considered as 'valence' issues, defined as those where there is a high degree of agreement, rather than 'salience' issues, where there is a high level of disagreement (Stokes, 1963). Even if there is no agreement on the ends proposed for a policy, some stakeholders may agree to the means, because they may favour their interests in relation to alternative goals (cf. Colebatch, 2005). Taking into account the degree of agreement on ends and means at the time of policy design, a fourfold ideal-type categorization of policies as symbolic, technocratic, ambivalent and administrative can be produced.

Symbolic policies are characterized by a low degree of agreement on goals by different stakeholders, as well as low agreement on means. A political party may want to implement such policies because of their symbolic value. An instance of this might be where conflict may have provided the policy with visibility to the public and the policy may be important to a party's constituency. In that case a party may want to adopt that policy precisely because of the conflict it generated in the discussions, to send a symbolic message to its electorate. When there is agreement on goals, but there is uncertainty as to what means would lead to achievement of those ends, the policies would have a technocratic component, in particular when goals are relatively narrowly defined. In policies of such character technical staff and epistemic communities (Haas, 1992) tend to play an important role in policy-making. More unusual, but possible, is the case where there is little agreement on the goals but there is convergence by different stakeholders on a set of means to be applied through public policy. I define such policies as 'ambivalent'. Finally, when there is high agreement on the goals and means, which is more likely to occur with long-established and relatively well functioning policies, reforms will be carried out mainly through administrative adjustments.

Table 1. A typology of public policy implementation styles according to the level of agreement during policy design.

		Agreement on goals	
		High	Low
Agreement on means	High	Administrative	Ambivalent
	Low	Technocratic	Symbolic

The argument advanced here is that the volume and nature of knowledge gathering and stakeholder involvement required to avoid non-implementation and implementation failure differs depending on the nature and context of the reform. The argument is not that democratic discussions about education should be bypassed through 'small cabinet' discussion or in favour of 'what works' (Biesta, 2007). Rather, the paper suggests that it is not possible or efficient to always have similarly wide ranging debates over policy, in particular when agreements already exist between a core set of stakeholders. The role of educational research and stakeholder engagement, therefore, depends to a large extent on the conditions upon which education operates in particular contexts. I explore these arguments with reference to the reform of the

BTe, a major education reform in México, which I introduce below.

The Mexican Bachillerato Tecnológico

After 70 years of ruling by the Institutional Revolutionary Party, the Christian-democratic Mexican National Action Party (PAN), led by V. Fox, gained access to power in 2000. The campaign rhetoric of the PAN at that time was very much about change, in education as in other areas. Upper secondary education was a case in point. Mexico has almost four million students enrolled in upper secondary education (Organisation for Economic Cooperation and Development [OECD], 2009). Concerns with this stage of education were high, as it is characterised by high drop out levels (upper secondary education graduation rates in Mexico were just over 40% in 2006 (OECD, 2008b), very low levels of achievement, large class sizes, low spending per student and low quality (Keating et al., 2002; OECD, 2008a, 2008b; SEP/SEIT, 2008). The education and labour market situation of 15–19-year-olds was troublesome as almost half were not in education. Only 62% of this group was employed, with the other 38% either unemployed or not engaged in employment, education or training, ranking at the lowest end of the OECD, second only to Turkey (OECD, 2009). It is against this backdrop that developments of the BTe should be analysed.

The BTe, which students typically start at age 15 after completion of lower secondary education, is one of the strands through which upper secondary education is delivered in Mexico. The BTe can provide access to higher education or the labour market. It is organised in six semesters studied over three years and in the academic year 2003–2004 it enrolled over 725,000 students (up from 640,000 in 2000–2001, just over 500,000 in the mid-1990s and 400,000 in the early-1990s) taught by over 35,000 teachers around the country (SEP/SEIT, 2008; Tamez-Guerra et al., 2004). This makes the BTe the largest individual strand in public (including centralised and decentralised strands managed by Mexican States) upper secondary education in México. Student enrolment makes up for just over a quarter of the enrolments in public upper secondary education (cf. SEP/SEIT [2008, p. 18] for a comparison with other strands over time). The BTe 'certificate' is the same in all the schools coordinated by the different Directorates of Secondary Education (DG), although the curriculum delivered in the schools associated with each DG varies in its vocational training component.

The BTe reform was implemented from 2004 and the first graduates from the new BTe completed their studies in 2007. It was presented as responding to a series of long-neglected needs. First, the reforms addressed educational system needs, as there was much disconnection between BTe strands, which caused management problems and accentuated difficulties in student transfers between BTe types, institutions and locations. There was also a lack of efficiency in the design of the programmes of study caused by a lack of integration of their curricular components and excessive length of the programme (OECD, 2008b). Second, economic needs were addressed by the reforms as the BTe had low acceptance by employers, as the system had traditionally been provider-led (Keating et al., 2002; World Bank, 1998), which translated into low returns for graduates. Third, social needs were addressed as there was a widespread perception of Vocational Education and Training (VET) as a 'second class education' (OECD, 2008b) and uncertain prospects for drop-outs, who left BTe programmes without any intermediate certifications. The desire to increase flexibility and openness within the system and the labour market relevance of the BTe were thus basic aims of the reform. After having reviewed the main elements of the BTe, the next two sections analyse the process through which it was reformed.

Knowledge sources, types and brokering

Educators tend to be reluctant to exploit research in education to initiate change, partly because of lack of capacity and partly because research has only weak links with policy and innovation (OECD, 2007). Savedoff et al. (2006), amongst others, have reported a substantial under-investment in and underuse of evidence-based policy development in education and other social policy areas. Governments recognize this themselves. The USA Department of Education has recently acknowledged that the results of scholarly research on teaching and learning are rarely translated into practice, especially for those working at the grassroots level in fields such as teacher preparation, math and science education and IT (US Department of Education, 2006).

Whilst there is a great emphasis in the literature that governments could make greater use of research, two things should be noted: first, the nature and timing of the research do not always allow for its use by policy developers and, second, governments can gather other forms of knowledge to guide their decisions. Thus, they regularly seek ideas and guidance (from experts, consultants and practitioners/users of the

system) to develop new programmes or to improve existing ones, although – voluntarily or not – not always within the time frames and budgets that allow rigorous evidence to be developed (Savedoff et al., 2006). The need for formal research, moreover, will vary depending on the complexity of the reform and its starting point. In particular, when stakeholders perceive the status quo as ineffective and there are apparently clear, and elsewhere tested, routes to improvement, government will have fewer incentives to examine existing or commission new research. In those cases, as we will see, the main challenge may be related to filtering knowledge about new initiatives to practitioners in order to build their capacity. Review of international experiences, use of existing research and statistics and consultations with experts and target groups were the main methods of gathering knowledge in the design of the Mexican BTe reform. Paradoxically, the large problems of the system reduced to some extent the need for this, as explained below. International benchmarking played a key role in highlighting the shortcomings of the Mexican system to the public and to teachers. Mexican secondary education compared unfavourably to European and American countries on access, quality and transparency (Szekely Pardo, 2008), which created a justification for reform. The results of benchmarking exercises were conveyed to stakeholders to support arguments on the need for policy action and to contribute towards the creation of agreements on the policies' goals. As we will see, discussions on the reform means were, by contrast, more problematic. Thus, while the reform reflected an administrative style of implementation, a technocratic style of implementation, as previously characterised in this paper, would have been more appropriate.

The Mexican system had witnessed unsuccessful attempts to use international comparisons and policy borrowing to design policy initiatives in vocational education. A notable example of this was a major World Bank Project on curricular reform, 'Proyecto de Modernización de la Educación Técnica y Capacitación', designed to introduce a competence-based approach to vocational education during the mid-1990s, which relied heavily on imported solutions. These did not sufficiently take into account the Mexican context and led to policy incoherence (Keating et al., 2002; World Bank, 2004). In the BTe reform international comparisons, which were conducted by the SEP and Mexican academics from institutions such as the Universidad Nacional Autónoma de México and the Universidad Pedagógica Nacional, ensured that international practices were observed but these were not accepted uncritically for transposition to the Mexican context. In particular, international curricula and norms in relation to different professions were surveyed to design the new BTe curricula and also new intermediate BTe certificates, which were created to try to facilitate the labour market integration of those students who drop out before completion of the whole BTe programme (interview with policy-maker).

International comparisons and benchmarking were complemented by other sources of knowledge. México has a relatively sophisticated system for the collection of evaluation statistics (Tatto, 2002). The Instituto Nacional de Estadística y Geografía provided data on México's macro-economic situation. Data on educational services (school management system), teacher training, training facilities, evaluation and certification of competences and financial management were also reviewed. Academics and researchers fed into the decision-making process mainly in relation to the design of measures to increase the labour market relevance of the BTe programmes. Reference studies for the reform came from the 'Asociación Nacional de Universidades e instituciones de Educación Superior' and the 'Red Nacional de Educación Media Superior', where many of the Mexican experts on secondary education work. The guidance prepared was fairly general. This curriculum design work needed to translate into concrete study programmes, a task which was undertaken with support from working groups of BTe teachers themselves (Tinajero Villavicencio, Lopez Bonilla, & Perez Fragoso, 2007), who also provided advice on the new infrastructure required to implement the reform. The Instituto Nacional de Infraestructura y Equipamiento, which includes teachers, industry professionals and professional organisations such as the Consejo de Coordinación Empresarial and CONCAMIN, prepared the final national guidelines on the minimum necessary infrastructure for teaching the different new BTe courses.

The extent to which the knowledge gathered guided some of the decisions and the initiative design (vis-à-vis axiomatic decisions) remains an open question. The incentives to look for evidence in the 2004 reform were relatively low, given a widespread view that a BTe reform was needed and that changes could only be an improvement over the status quo. This led to design failures. For example, whereas the reform put an axiomatic emphasis on enabling transfer between different BTe providers, the actual volume of use of transfer is unknown – no statistical evidence supported the need for enabling such transfers. In spite of the emphasis on transfer, however, practical barriers, largely related to curriculum design and remaining differences in the vocational components of courses in the different strands of the BTe, continue to make transfers difficult in spite of the pathways theoretically opened by the reform. Similarly, on the whole, the reform gave greater weight to the academic components of the BTe curriculum, which was in conflict with

the profile of the majority of students that enrol in BTe programmes (Interview with teacher). The crucial issue in terms of knowledge, as already suggested, was not, however, how to gather information for central policy design, but how to filter it down to those implementing the initiative: teaching staff and their managers in schools. In that process, a different kind of knowledge (that of 'know-how', which in the Mexican case for this reform was very limited) would have had to be gathered or created, both for the SEP and teachers. I discuss this issue more fully below in the section on stakeholder involvement and implementation.

Stakeholder involvement and implementation

The standard view in the policy implementation literature is that stakeholder involvement is important in the design phase. Stakeholders can be a source of knowledge and early involvement can ensure their support at the time of implementation. Yet comprehensive stakeholder agreement can also be time consuming and, sometimes, simply impossible. Whereas the design phase of the BTe reform was relatively unproblematic, as reported by most of the stakeholders interviewed (government officials, consultants and academic experts – students and parents were not involved in the design phase), and there was a broad agreement on the overarching reform goals, the implementation phase was more challenging. However, this was not mainly to do with the lack of stakeholder involvement in the early stages of the reform (except for the lack of parents' and students' representatives involvement – see below), but with a persistent lack of capacity building and sufficient distribution of 'know-how' amongst teachers after their support was achieved. The attempts of capacity building happened later in the process in order for them to be able to implement the reform in the classroom.

A first aspect to consider is governance structures. Stakeholders do not operate in an institutionally unrestricted environment, but within defined governance structures that affect their strategies. The range of stakeholders subject to potential involvement in vocational education reforms is wide and includes teachers, schools managers students/trainees/employees, social partners, individual private companies, non-for-profit organisations, public innovation agencies, different levels of government (local, regional, central) and international organisations. Besides sectoral and professional cleavages, it is also necessary to remember that México is a very heterogeneous country, making it all the more difficult for central reforms to be satisfactory to its component regions and cultural groups. The transaction costs associated with the involvement of these stakeholders are thus potentially high and its benefits need to be measured against them. There is emerging support for the argument that policy implementation in México has become less coherent and coordinated because of the recent inclusion of more players in the policy-making process (Leoucq, Negretto, Aparicio, Nacif, & Benton, 2005). Yet the governance structure for the BTe facilitated the implementation of the reform as it is relatively simple and centralised compared to other strands of upper secondary education in México in which there are greater numbers of stakeholders, such as the Mexican States who are involved in planning and delivery (Interview with policy-maker).

The process leading to the implementation of the BTe reform was, on the whole, top-down, under leadership from the SEP, with a strategic differential degree of involvement of other stakeholders at progressive stages of the implementation process, as detailed below. The SEP – in particular the 'Secretariado Técnico' chaired by the Executive Secretary of the Council of the National Technical Education System (Consejo del Sistema Nacional de Educación Tecnológica or COSNET) – was the lead stakeholder in the reform's problem definition and analysis (Morelos, 2004; SEP/SEIT, 2008), with political support from the Mexican Secretary of Education. During the strategic design stage, when the main elements of the reform were initially discussed, employer associations provided their inputs. Employers had an early access to the reform process because the SEP saw their role as key to the success of the reform. They could provide information on the profile of BTe graduates needed by industry. Moreover, funds from large and successful industry partnerships and consulting activities, to name just a few developments, provided some of the extra funding that vocational education institutions have been able to invest into strategic innovation initiatives (cf. also Souto-Otero, 2007). The Mexican secondary vocational education system is badly in need of such investment (OECD, 2008b). Yet strong industry involvement created some dilemmas for the SEP as one of the key lessons from countries seeking to cope with high levels of labour market uncertainty – such as México – is that vocational education should not be too immediately responsive to short-term labour market needs. Instead it should provide broad qualifications that offer a basis for further specialisation and future development (Hampton, 2002; Mitchell & Young, 2001). Although other factors affect the implementation of reforms in education, the actions of those who have to make reforms happen (Lipsky's [1980] street-level bureaucrats) are seen as critical. There are two relevant factors in this respect: the capacity and the will of the implementers to 'make reforms happen' (cf. Herson et al., 2000; Tatto, Schmelkes, Del Refugio Guevara, & Tapia, 2006). Teachers need to be able to

implement the reform (a technical issue) and they must want it (a political issue). Ignoring teachers' experiences is portrayed as the principle reason for the spectacular lack of success of most educational reforms (Bodilly et al., 2004; Cuban, 1996; Fullan 1982). Grootings and Nielsen (2005), more concretely, argue that the implementation of reform requires more than establishing broad ownership and acceptance by teachers – if that were the case traditional methods of securing compliance (centralized, authoritarian, political and administrative) could be applied. Yet, purely centralized initiatives have regularly failed as teachers appear to accept the reforms but do not implement them. Instead, the operational detailing of reforms by teachers is crucial and needs to be fed in to policy-makers rather than establish a unidirectional top-down relationship (cf. Blumenfeld, Fishman, Krajcik, Marx, & Soloway, 2000). Therefore, much of the educational literature suggests that there is little room for implementing a reform successfully unless teachers are involved in its development and 'buy it' from the start. The BTe experience shows that, under certain conditions, this does not need to be the case (cf. also Bishop-Clark & Grant, 1991).

The role of the Mexican teachers' trade union (Sindicato Nacional de Trabajadores de la educación [SNTE]) was less prominent than that of employers in the early stages of the reform. The SNTE, has traditionally been extremely powerful in México given its high level of affiliation (with over a million teachers it is the largest trade union in Latin America [Schmelkes, 2008]), to the extent that its position has been key to deciding Mexican elections (Centro de Estudios en Políticas Públicas, 2008). Some analysts have attributed a good part of the long-standing lack of educational reform in México to the teachers' trade union continuous pressures over government (Ornelas, 2004). Yet SNTE played a very small role in the design of the BTe reform and was not brought into the discussions until a reform proposal was virtually finalised. Thus, it is hardly surprising that trade union's representatives argued against the reform, even if they declared to be broadly in favour of its content. The teachers' union argued that the process through which the reform had been implemented had been deficient, too centralised and that insufficient efforts had been put into teachers' understanding and support of the reform. Therefore, the union argued, following the standard argument on stakeholder involvement outlined above, that it would be faced with resistance and result in little change in the classroom. According to the teachers' union, the 'cascade' model for transmission of information to teachers, from the centre (SEP) to senior civil servants and from them to school principals, who would ultimately inform teachers, did not work well and gave rise to multiple misinterpretations and resistance. Indeed, the model for implementation the SEP applied exhibited greater involvement of stakeholders through 'one-way communication' than through more elaborate forms such as consultation or joint decision-making (cf. OECD, 2004). Even this one-way communication was not always clear or well planned (Interview with teacher). Principals received details of the reform elements in open information sessions very shortly before the start of the academic year in which the reform had to be implemented and teachers were informed even later (Enriquez Castillo, 2005). The trade union argued that it could have played a much greater role in the direct transmission of information about the reform from the SEP to teaching staff earlier on. Similarly, the trade union participated in the process only tangentially as it had exchanges with the SEP, but these were not in depth (Interview with trade union). The SNTE would have desired greater joint work on the objectives, goals, procedures and strategies of the reform with the SEP.

Government seemed to have done much against encompassing stakeholder involvement. The teachers and teachers' union initially opposed the reform, labelling it as 'elitist and hierarchical' (Morelos, 2004) and the union called for strikes, supported by teachers (Enriquez Castillo, 2005). The union had participated to a very limited extent in the design of a reform that had consequences for the remuneration, working hours, practices and profile of teachers (Interview with teacher). The reform came as something 'unexpected, shocking and uncertain' (Arrieta & Garcia, 2006, p. 5). It was communicated to teachers hastily and the first teacher training courses on the reform were delivered only days before the start of the academic year in some States (Herrera Nava, 2008). Teachers struggled with implementation of the BTe, both in terms of the new pedagogies to be employed and newly required technical competences. More than five years after its introduction, the reform is still facing capacity bottlenecks as teachers – many of whom do not hold HE qualifications – do not have the necessary skills to implement the changes envisaged by government (Tinajero Villavicencio et al., 2007), in spite of more recent efforts to upskill 240,000 teachers by 2011 (SEP/SEIT 2008). The SEP, however, knew from the start of the initiative that teacher training would be a long-term process.

Such possibilities for upskilling, linked to improvements in working conditions, as well as further steps in the professionalization of the teaching force (changing the selection procedures for the position of 'principal' from school election to a merit-based concourse and an extension of the 1990s reforms to make teacher promotion based on performance rather than seniority) were employed as incentives to make

teachers buy into the reform. The effectiveness of this action is an empirical question for further exploration as previous initiatives on teacher training and professionalisation in México have faced numerous problems in practice (Tatto, 1999, p. 265; Tatto et al., 2006).

Turning to the role of parent and student associations, these were not involved in the design of the reform, which can prove a major shortcoming in addressing the already mentioned parity of esteem issues between general and vocational secondary education that the reform tried to tackle. A culture of parental participation in school is lacking in México. Parents' associations are weak and there are legal limits in respect of their participation on aspects of educational content and teaching methods (Ornelas, 2004). Yet the absence of involvement of parents' and students' representatives in the reform design made it run the risk of not having fully understood the reasons for low parity of esteem. Hearing the voices of parents and students would have provided new insights into the means that should be employed to achieve the reform goals, with which student and parent representatives broadly agreed.

Turning to the role of public administration itself, the complexity and scale of the reform has put SEP's capacity for implementation and coordination under strain and there is evidence of some stretching of SEP officials during the reform, as they lacked comprehensive knowledge about local realities across the country, which led to delays in the implementation in some regions/schools (Enriquez Castillo, 2005). Some of the SEP systems, equally, seem to not have been fully prepared for a smooth implementation of the reform. Overall, however, the reform is being implemented and was linked to wider systemic reforms ('Reforma integral del Bachillerato') initiated in 2007, which aimed to provide more impetus to change in secondary education. The BTe reform, it can be argued, made other parts of the system aware of the need for change.

Conclusion

The case study of the Mexican reform of the BTe in 2004 suggests several initial conclusions related to the use of knowledge and the involvement of stakeholders in educational reform processes. First, the nature of different policies and the preconditions they face in terms of agreement over objectives and means, as well as the existing knowledge-base, may enable or preclude different styles of implementation. The disproportionate recent emphasis on stakeholder consultation and consensus largely ignores these contextual aspects of policy-making and is therefore unable to appropriately capture the range of viable procedural alternatives. 'One size (processes) fits all' does not seem a realistic description of how policy operates or even how it should effectively operate. By contrast, there are viable alternatives to implementing reform to extensive use of consultation and consensus building, in particular when there is an initial high agreement on goals and/or means.

The reform of the BTe had been in the agenda for a long time. It is unlikely that the SEP would have achieved implementation of a consensual reform in the time-frame of one election term or at all. Previous attempts to achieve such reform through consultation processes were systematically blocked by the teachers' trade union, leading to non-implementation. Although bypassing unions may be seen as creating both a political legitimacy and technical implementation problems, the latter is the main challenge. In relation to formal political legitimacy it could be argued that it is government who should decide ultimately on the changes to be made and system's orientation and who is endowed with the political legitimacy to do this, in particular when there is public support for its actions. If the decisions are wrong, the electorate should substitute it.

The progress achieved by the reform has been uneven. So far, greater progress has been achieved in terms of changing curriculum structures and less so in terms of changes in pedagogy, the movement towards learner-centred approaches, and stronger monitoring and evaluation. This is reinforced by an unmet need for greater investment in human resources (Osorio Garcia, Mejia Serafin, & Navarro Zavaleta, 2007), low investment in terms of infrastructure (OECD, 2008b; Szekely Pardo, 2008) and equipment to deliver the new curricula. But the reform is in progress.

Second, governments are important stakeholders in educational policy development, who can push forward legislative reforms and substantially steer, if indeed not fully control, implementation and strategically operate to win other stakeholders during the reform process. In the case of the BTe reform, centralised governance structures facilitated the implementation of the reform in a top-down fashion, as did the context of the policy. Indeed, even if little consultation was undertaken, there was a substantial agreement amongst stakeholders about the deficiencies of the existing system and the need for reform.

There was also a broad agreement on the reform goals, amongst most stakeholders. That enabled an administrative implementation style that did not have to rely on wide stakeholder engagement in the initial stages. Government, however, consciously or unconsciously underestimated the need for knowledge on the means to implement the reform and development of know-how both internally within the SEP and in relation to the ultimate reform implementers: the teachers. The reform would have clearly benefited from having initially gained and diffused greater knowledge in its practical aspects, moving it towards a technocratic-style reform – recognising that there was low initial agreement with teachers on the acceptable means to achieve the reform goals and providing them with greater support and guidance on the benefits of and how to employ SEP's preferred instruments to try and achieve the changes that were required in the system.

The SEP could have provided greater incentives for stakeholders to work with one another without the direct involvement of governmental organisations. During the implementation phase, there was scope for greater efforts in stimulating collaboration amongst schools, collaboration with employers and in the clarification of responsibilities and rights of schools for collaboration with industry. Collaboration amongst schools could have been of benefit both in the exchange of good practices and in delivery (e.g. through sharing of equipment and infrastructure or greater specialisation by subject to concentrate resources). Collaboration with employers at the local level is of great importance given existing concerns with the employability of those BTE graduates who do not choose to go to higher education. Although employers are represented in Boards of School, further work with them could be stimulated. A first step in this respect would be to clarify the competences of schools for engaging in joint work with employers. The time has come now for these outstanding issues to be addressed. Indeed, top-down approaches can be more limited to sustain and perfect implementation than to initiate it, as later stages in the reform process increasingly tend to require positive action from those who implement the reform on the ground. The argument here has been that in certain contexts and under certain conditions such compliance with the introduction of reforms can be achieved only after the design phase and not through early engagement. Third, in light of the above, processes should be considered independent variables in the explanation of reform achievement or failure. The policy-making process inevitably affected how the reform was initially received by teachers and partly explains their resistance to the proposed change. This, however, diminished as implementation progressed. The reform has gained increasing support from teachers, according to teachers' union representatives. At the very least they have come to comply to a greater extent with its principles, as they began to see the benefits the reform produced for students. Accordingly, there is evidence that they have devoted substantial effort to accomplish the reform goals (Herrera Nava, 2008) even though a good share of teachers still consider the achievement of the central pedagogical elements of the reform as radical and utopian (Arrieta & Garcia, 2006).

In relation to knowledge use, it is noteworthy that the SEP and central government made more careful use of this – including the use of international benchmarking, statistics, linking with epistemic communities – than in other recent initiatives. Yet more emphasis should have been given during the design and early implementation phases of the reform to develop, within the SEP, the necessary know-how to avoid delays in implementation in different geographical areas and schools as well as the failure of some systems. Mexico's upper secondary vocational education system, moreover, provides clear examples of institutional inertia, such as the preservation of many un-rationalised sub-systems, which suggest that the use of knowledge should move still further to the centre in decision-making. The case study also highlighted the importance of the gathering and use of knowledge not only at the time of design by central administration, but also at the time of implementation by frontline staff. In this respect, the knowledge available and capacity building provided to teachers and schools so far has been clearly insufficient, which has proved to be one of the central shortcomings of the reform as it has progressed through time.

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