How to understand school improvement: Current targeted education support policies in Chile on perspective

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Introduction

This paper focuses on analyzing the Chilean Ministry of Education´s strategy of supporting schools called the Shared Support Plan (or PAC, its Spanish acronym) which is a national program that provides educational resources and support on key academic areas to primary schools, from preschool to 4th grade. In particular, this paper conducts a comparative analysis between PAC and previous centralized educational policies of technical-pedagogical support in Chile targeted to vulnerable/low-performing schools – mainly P 900 Schools Program and LEM Strategy-, characterizing the main features of each policy and establishing aspects of continuity and change among them.

From a comparative perspective, main findings indicate that targeted educational support policies in Chile have varied through time in terms of their focus, levels of intervention and policy tools. Furthermore, they have varied on the educational traditions that sustain them. Whereas, P 900 is a result of the combination of the school effectiveness approach to school improvement (Edmonds, 1979; Coleman, Hoffer & Kilgore, 1981, 1982; Sammons et al., 1995) and the Chilean popular education movement from the 1980s (Bengoa et al. 1987; Krichesky, 2011), LEM is inspired on the notion of reflective practitioner developed by Schon (1983) which posits the idea that professional development of teachers should not only be based on instrumental problem solving or specialized scientific knowledge but also –and mainly- on reflection in action: the reflection of teachers about their own teaching in practice (Schon, 1983). Finally, PAC is a result of the combination of traditional top-down approaches to policy design and implementation that seek strict compliance (O´Donnell, 2008), and data-driven approaches (Wayman & Cho, 2009) that seek to empower school actors for decision-making (Barrera-Osorio et al., 2009; Caldwell, 2005). Which of these policy alternatives is more effective? What type of school practices and school culture they intention and promote within schools? This article will address these questions and try to provide an answer.

From a policy analysis point of view, the paper posits that PAC embodies a peculiar combination of perspectives: the fidelity of implementation approach to policy design and implementation (O´Donnell, 2008) and a data-driven and school-based management perspective (Wayman & Cho, 2009; Barrera-Osorio et al., 2009; Caldwell, 2005) that seeks

to empower school actors for decision making. It is this combination of approaches which help understanding main tensions and contradictions within PAC´s policy design. How much of the curriculum prescription should teachers follow? How much curriculum adaptation should they perform? Should schools concentrate on developing specific classroom norms for ensuring a culture favorable for learning or should they go beyond it to embrace broader school culture issues? Should schools define PD issues for teachers mainly based on information provided by specific PAC devices or should they consider broader teacher needs? This article will address these questions and try to provide an answer.

Concerning the paper´s structure, the document is divided on four main sections. The first one describes and analyzes the main features of the Shared Support Plan and identifies its main internal tensions and contradictions. The second chapter briefly describes and analyzes the P 900 School Program and the LEM Strategy and compares them to the PAC´s program. The third chapter develops an integrative analysis and comparison between the different school improvement conceptions behind each targeted education support policies previously considered, and elaborates on how the main tensions and contradictions within PAC´s policy design are related to the different education policy traditions that permeates it. The fourth and final chapter synthetizes previous sections and reflects about the effectiveness of targeted education support policies previously analyzed. The paper concludes that the most relevant question is not about which policy is more effective but for what is more effective and under what implementation conditions.

The Shared Support Plan (PAC) main features

This section of the paper describes and analyzes the main features of the *Shared Support Plan* (or PAC, its Spanish acronym), a national targeted education program that provides educational resources and support on key academic areas to vulnerable/low-performing primary schools, from preschool to 4th grade. The program was initiated in 2011 and nowadays is beginning its third year in operation. It attends more than 1000 schools, 6000 teachers and 210.000 students who receive various kinds of supports for improving teaching and learning in language, math, science and social studies. In the following, the main goals, intervention areas, policy targets and policy tools of the program will be

described. In addition, an analysis of the main characteristics of PAC´s policy design and its main internal tensions or contradictions will be drawn up. Overall, this chapter of the paper will allow obtaining an overview of the program´s design and the main challenges it may generate over key implementers.

Main goals and intervention areas

The *Shared Support Plan* (or PAC, its Spanish acronym) is a national targeted education program that provides educational resources and support on key academic areas to vulnerable/low-performing primary schools, from preschool to 4th grade. Key academic areas covered refer to language and math in all grades attended, and science and social studies in 3rd and 4th grade, only. The program´s main goal corresponds to "Improve students´ learning results by strengthening curricular and organizational capacities of participating schools" (Ministry of Education, 2010, p. 6) thereby highlighting three key objectives: (1) To support the effective implementation of the national curriculum within classrooms, (2) To support the implementation of effective organizational/pedagogical practices within campuses, and (3) To support the implementation of a data-driven culture for student learning and improvement within schools.

For aiming these goals, the program promotes the implementation of two teams that are expected to work collaboratively, one located at each participating school and the other located at each Ministry of Education Provincial Office. The first group corresponds to a *School Leadership Team* (or ELE, its Spanish acronym) compounded of at least four members: the school principal, the assistant principal in charge of technical-pedagogical matters, and two outstanding teachers. This team is responsible for guiding and supporting teachers and other school staff in the development and monitoring of student learning and improvement within schools.

The second group corresponds to a *Technical Pedagogical Assistant Team* (or ATP, its Spanish acronym) compounded of three members (and two members starting on 2013) working at the Ministry´s Provincial Office who are in charge of supporting the School Leadership team (ELE) in its leadership/monitoring/supporting role. The ATP team visits the school every 6 to 7 weeks, and helps the ELE team on diagnosing the school´s strengths

and weaknesses, using/implementing PAC resources and assessments, and using/analyzing student data for the purposes of school improvement.

The Shared Support Plan has *five main essential intervention areas*. The first one refers to the *effective implementation of the national curriculum* through the provision of various planning tools for teachers: an annual curriculum plan, a set of 6 week-period plans and a set of day-to-day classroom plans. These tools provide school teachers with a highly-prescribed programme that allows them to organize, schedule and optimize the implementation of the curriculum. According to the *PAC Strategic Manual*, when doing this implementation, teachers and the ELE team "need to consider student diversity… and try to adapt the programme to the different students´ needs and learning styles." (Ministry of Education, 2010, p. 16) This adaptation posits challenges for teachers who need to conciliate what is prescribed with the specific classroom situation. How much of the prescription should teachers follow? How much curriculum adaptation should they perform? These are some of the key questions implementers, teachers and the ELE team, may address when implementing this essential area.

The second essential area corresponds to the *promotion of a school climate and a culture favorable for learning*. The PAC Strategic Manual equates this promotion to the development of "a positive, welcoming and respectful classroom environment which favors an effective implementation of the curriculum" (Ministry of Education, 2010, p. 18). In other words, the focus of the area is mainly set within the classroom limits and serves academic purposes: promoting a culture of good communication between teachers and students, establishing clear and shared norms inside the classroom, and recognizing the intrinsic value of students as a requisite for academic learning. Despite this emphasis, PAC also gives some directions on how to develop clear and shared norms at the school/organizational level which nurture classroom level norms and practices (Ministry of Education, 2010, pages 21- 22). However, this guiding is mainly declarative within the strategic manual, and does not include the provision of specific tools for the development of organizational norms by school leaders. As an example, the program has developed a *School Climate and Culture Manual* that propose prolific recommendations on how to set specific norms and routines within classrooms, how to manage classroom learning time and

how to solve problems with students inside the lecture room. This same manual does not make any references to how classroom norms could be related to upper organizational norms and practices and to the broader school culture within each campus. How much discretionary power should teachers have for setting specific classroom norms? What is the relationship between classroom norms and the broader school culture? How should classroom norms be defined and created? How much participation of school actors, parents and students should be promoted when defining classroom and school norms? These are some of the key questions implementers, teachers and the ELE team, may address when implementing this essential area.

The third essential area refers to the *optimization of classroom learning time* which relates to the assurance by school leaders and teachers themselves that they are using all the learning time planned and available for the purposes of teaching and learning. As said in the PAC Strategic Manual, reaching this goal implies properly implementing two key PAC devices: day-to-day classroom plans and classroom observations. Fist, the implementation of day-to day classroom plans should "guarantee that teachers are able to properly organize their lessons following a common structure (beginning, development and closure) and to adequately implement effective teaching strategies." (Ministry of Education, 2010, p. 22) Second, the implementation of classrooms observations, which is a tool that allows ELE team members to individually guide and support teachers on teaching/instructional issues, should help teachers on improving their classroom time management and other classroom teaching practices. Key for this improvement is the feedback that ELE team members provide to teachers observed; the higher the quality and pertinence of such feedback, the more the probability of contributing to the professional development of teachers and their teaching performance. How much do day-to-day classroom plans help aiming the goal of time optimization? In what ways should these plans be used for optimizing classroom learning time? In what ways do classroom observations held by ELE team members contribute –or not contribute- to time optimization? These are some of the key questions implementers, teachers and the ELE team, may address when implementing this essential area.

The fourth essential area corresponds to the *evaluation and monitoring of student learning* which refers to the use of data on student learning and performance for the purpose of improving teaching and learning. PAC provides three main tools for tackling the issue: diagnosis tests on student knowledge and abilities, intermediate and final student evaluations. Each of these devices is implemented at different points in the semester and help obtaining a detailed screening on how students are performing on specific subject matter contents and abilities. With this information at hand, the School Leadership team (ELE) and teachers themselves are expected to analyze student results, to reflect on them and their practice, and to decide on specific teaching and learning ameliorations. Overall, these procedures intend to develop "a data-driven decision making culture at each participating school, centered on the use and analysis of student results as a lever for improvement." (Ministry of Education, 2010, p. 24) How should student data be used by school leaders and teachers themselves to help improving student learning? What type of professional conversations should be held by teachers and staff in order to successfully use student data for improvement? What are the contributions and limitations of the data provided for student and school improvement? These are some of the key questions implementers, teachers and the ELE team, may address when implementing this essential area.

The fifth and last essential intervention area of the Shared Support Plan (PAC) refers to the *promotion of teacher professional development*. According to the PAC Strategic Manual, this professional development (PD) should primarily promote "the reflection of teachers about teaching and learning issues, particularly focusing their conversations on the analysis of student learning results." (Ministry of Education, 2010, p. 24) It is by having such focused conversations and by implementing specific related ameliorations to the process of teaching and learning that better results could be reached. Complementary to this mayor task, PAC suggests that schools should promote and facilitate the professional development of teachers by implementing training workshops and other individual or collective instances "based on both teachers´ and school needs, and considering the specific results provided by classroom observations and other PAC tools." (Ministry of Education, 2010, p. 25) This suggestion reveals how PAC favors teacher professional development initiatives focused on specific teaching/learning matters and PD

issues rather than focused on comprehensive reflections about the teachers´ role within schools and the role of education. However, the latter may also be important for reaching PAC purposes. How classroom observations and other PAC tools inform teacher professional development? How do these devices should get combine with other sources of information for defining the PD plan for teachers within a school? How to conciliate the specific PD issues that PAC tools determine with broader PD needs of teachers? These are some of the key questions implementers, teachers and the ELE team, may address when implementing this essential area.

Policy targets and policy tools

Considering previous descriptions, the Shared Support Plan (PAC) defines and proposes specific policy targets and develops specific policy tools for aiming its goals on its different essential intervention areas.

Policy targets are understood as the agents or actors that are expected to be affected or changed either directly or indirectly by the policy design (Birkland, 2005). First, since PAC explicitly seeks the development of specific organizational and curricular capacities within schools, direct policy targets are all School Leadership team members and all school teachers from pre-k to 4th grade teaching PAC´s key academic areas. Second, since PAC seeks as ultimate goal to improve learning results of students, direct policy targets also are pre-k to 4th grade students themselves. Third, since some PAC efforts also affect other relevant actors within schools, indirect policy targets of the program may be other teachers working at the participating school, students attending upper primary or secondary school levels, and parents of participating students that are encouraged to receive student data and results related to the program.

Policy tools refer to "elements in policy design that can cause targets of policy to do something that they would not do otherwise or with the intention of modifying behavior to solve public problems or attain policy goals" (Birkland, 2005, p. 170, quoting Schneider & Ingram, 1992). Among these elements, PAC provides different types of policy tools.

Following, Schneider and Ingram (1997) classification[1] PAC delivers three main types of policy tools: reliance on authority, capacity building and learning tools. First, authority tools rely heavily on prescription and assume that lower-level agents recognize the wisdom and expertise of those higher in the policy hierarchy and are therefore voluntarily willing to take the action needed. Authoritative PAC policy tools mainly refer to planning tools such as 6-week-period plans and day-to-day classroom plans which require teachers to follow a specific curriculum programme. Although authoritative, these tools are also expected to be adapted and transformed by teachers if needed. Such flexibility relativizes the authoritative character of PAC planning tools in practice.

Second, capacity building tools provide training, technical assistance, education, and information to take policy relevant actions. They are expected to enlighten, remove impediments and empower action by the target group or agent itself. Capacity building PAC tools mainly refer to the technical assistance provided by the Ministry of Education Provincial Office, and to all manuals/orientations the program delivers to teachers and school leadership team members (didactic orientations, evaluation and assessment orientations, the School Climate and Culture Manual, etc.). These devices seek to guide and enable school agents to take action in a certain direction, when they do not know how to do what is required for aiming school improvement.

Third and last, learning tools encourage agents and targets to act to solve problems, but leave the strategies to agents or targets, themselves. Agents are encouraged to anticipate problems, to develop plans, and to draw lessons through formal reporting, evaluations, hearings, institutional arrangements, etc. In this context, learning PAC tools mainly refer to classroom observations, diagnosis tests of student knowledge and abilities, intermediate and final student evaluations, reports on student test results, etc., all of which motivate school actors to consider/analyze teachers´ behaviors or students´ performances and to implement specific and related school improvements measures.

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[1] Schneider and Ingram (1997) classify policy tools on five categories: Reliance on authority, Inducements or sanctions, Capacity building, Hortatory or persuasive proclamations to influence values, and Learning that will enhance recognition of problems and reduce uncertainty. From these types, PAC mainly uses three types of policy tools: Reliance on Authority, Capacity building and Learning.

PAC Main characteristics: Disciplinary, focused, prescriptive, data-driven and pragmatic

Considering all previous descriptions and categorizations, PAC can be considered a specific kind of targeted education support policy. First, PAC proposes intervening schools circumscribing its action mainly to academic or curricular issues. Rather than taking a school-wide approach for supporting schools, PAC focuses on providing specific policy tools –particularly, highly prescribed curriculum plans and materials- for enhancing language, math, science and social studies student learning. As a result, the program is *focused* rather than comprehensive, and *disciplinary* and *prescriptive* in nature.

Despite this main stamp, PAC also intervenes at the school organizational level. This intervention primarily occurs by mandating participating schools to create a School Leadership (ELE) team, but goes beyond it by demanding school leaders to use and implement various PAC policy tools and related strategies: classrooms observations of teachers, constant monitoring of student learning, and focused conversations with teachers for analyzing student learning results. These strategies urge both school leaders and teachers to develop a *data-driven decision making culture* within the school and within classrooms. According to Wayman and Cho (2009), developing such culture may help school leaders to better monitor and adjust programmatic decisions, identify teachers´ needs for professional development and guide conversations about teaching and learning. In addition, a data-driven approach may also help teachers themselves to "adjust their lessons, adjust student grouping, develop interventions for struggling learners or communicate with parents." (Wayman & Cho, 2009, p. 8) In any case, this data-driven culture introduces a more focused approach to teaching and learning and to the professional development of teachers and staff that bolsters specific and concrete responses to school problems. As a result, the data-driven character of the program determines its *pragmatic orientation* towards the improvement of specific school practices rather than broad school matters.

At this point, PAC´s policy scheme may be considered a combination of traditional top-down approaches to policy design and implementation that seek strict compliance (O´Donnell, 2008), and data-driven approaches (Wayman & Cho, 2009) that seek to empower school actors for decision-making (Barrera-Osorio et al., 2009; Caldwell, 2005).

In sum, the Shared Support Plan (PAC) is a *data-driven* and *pragmatic* targeted education support policy *focused* on improving student learning in key *disciplinary* or academic areas. For aiming its goals, the program delivers various policy tools to participating schools. Particularly relevant are curriculum planning tools which provide a highly-prescribed programme to schools that allows them to organize, schedule and optimize the implementation of the curriculum. Equally important are classroom observations, diagnosis tests of student knowledge and abilities, intermediate and final student evaluations and reports on student test results all of which motivate school actors to consider/analyze teachers´ behaviors or students´ performances and to implement specific and related school improvements measures. All these policy tools, and related policy goals, determine the main characteristics and features of the program: disciplinary, focused, prescriptive, data driven and pragmatic, and also configure the main tensions within its policy design.

Main Tensions in PAC´s policy design

Three main tensions in the Shared Support Plan (PAC) policy design could be identified. First, the program provides school teachers with various planning tools –an annual curriculum plan, a set of 6 week-period plans and a set of day-to-day classroom plans- that favor the implementation of a highly-prescribed programme or curriculum within PAC´s key academic areas. Nevertheless, the program allows –and encourages up to a certain point- adapting the programme to the different students´ needs and learning styles within schools and classrooms. As said earlier, this adaptation posits challenges for teachers who need to conciliate what is prescribed with the specific classroom situation. How much of the prescription should teachers follow? How much curriculum adaptation should they perform? The answers to these questions are not clearly stated in the policy design. Furthermore, two contradictory messages are implicitly expressed in the policy proposal: "you should fully implement these curriculum plans for meeting policy goals" and "you should adapt these curriculum plans for reaching student learning". At the end, the final answer is left to the criteria of key implementers: school teachers and school leadership team members.

A second tension in PAC´s policy design refers to the issue of what implementers should understand by developing a school climate and culture favorable for learning. On one hand, and as stated in the PAC Strategic Manual, such development means developing a culture of respect and responsibility that starts in the classroom but goes beyond it to include all school matters and interactions. On the other hand, such development means the developing a specific a classroom climate, with specific classroom norms, that favors student academic learning. Both notions are present in PAC's policy design, however the latter is more clearly intentioned and tried out by/within PAC policy tools (e.g. the School Climate and Culture Manual). As a result, PAC implementers receive two different messages: "you should promote a school-wide culture favorable for learning" and "you should develop specific classroom norms favorable for learning". These messages, although intimately related, imply different courses of action. Whereas the first message implies broadly working the issue at both school and classroom levels, the second privileges mainly working with norms within classrooms settings. Again, the final answer about what should be done is left to key implementers.

A third and last tension in PAC´s policy design refers to the issue of what type of teacher professional development (PD) is intentioned and promoted from the program. The PAC Strategic Manual and related policy tools (classroom observations, diagnosis tests of student knowledge and abilities, intermediate and final student evaluations, reports on student test results, etc.) primarily intention a PD for teachers based on specific issues: the analysis and reflection of student learning results, the detection of specific student needs and the results and commitments derived from classrooms observations. However, PAC´s Strategic Manual also intentions a PD for teachers based on broader teachers´ individual and collective needs. This latter option may open a broader set of PD alternatives for teachers. How to conciliate the specific PD issues that PAC tools determine with broader PD needs that teachers may have? This is a key question that PAC´s policy design leaves open by delivering two different messages: "you should implement PD initiatives focused on what student results and classroom observations reveal" and "you should implement PD initiatives focused on broad teachers´ needs". Similar to previous tensions, the final answer about what should be done is left to key implementers.

In sum, PAC has, at least, three main tensions or contradictions within its policy design: implementing the curriculum plans prescriptions or adapting them, focusing on developing specific classroom norms or broadly promoting a particular school culture across campus, and developing PD for teachers based on specific issues or based on broader teachers´ needs. These tensions challenge key implementers, mainly school teachers and school leadership team members, to define specific courses of action when implementing the program. These alternatives imply, on one hand, fidelity of implementation and, on the other hand, adaptation/transformation of the policy design.

According to Honig (2006), implementation fidelity involves taking a top-down approach to PAC´s implementation; policy tools are carried out seeking full compliance with the policy design (O´Donnell, 2008). To the contrary, adaptation/transformation involves understanding that PAC´s implementation is shaped by macro and micro-level influences; policy tools are carried out in an open context where policy, people and places interact to reach a transformed policy design in practice (Honig, 2006; Stone; 2012). Within PAC´s policy design, the first alternative implies exactly following curriculum plans prescriptions, classroom norms orientations provided by the program and/or teachers´ needs detected through particular devices (e.g. classroom observations) when implementing the initiatives. In contraposition, the second alternative implies adapting curriculum plans prescriptions when teaching students, adapting/transforming classroom norms orientations to promote a particular school culture, and conciliating specific teacher needs detected with broader teacher needs existing in the school when defining PD issues. Which of these alternatives is primarily intentioned from the program? Which alternative should be followed? A tentative answer will be proposed in this paper.

The Shared Support Plan (PAC) on comparative perspective

This section of the paper briefly describes and analyzes two previous targeted education support policies implemented by the Chilean Ministry of Education: the P 900 School Program and the LEM Strategy. These descriptions and analyses allow to characterize the main features of each program´s scheme and to compare each of them with the Shared Support Plan (PAC) design. Comparisons allow obtaining a general panorama of different targeted education support programs designed and implemented by the Ministry

of Education since 1990, and allow understanding PAC´s specificities in the context of a broader set of policy designs.

The P 900 School Program versus the Shared Support Plan

The *P 900 School Program* was an educational program implemented by the Chilean Ministry of Education between 1990 and 2003. During this period it attended more than 2.300 schools. P 900 was the first –and has been one of the largest- targeted education support policy implemented by Ministry of Education since 1990. The program gave technical-pedagogical support to vulnerable and low-performing primary schools, initially focusing efforts between 1st and 4th grade levels (1990-1998), and expanding them in 1998 to kindergarten and from 5th to 8th grade (1998- 2003). According to a 2001´s evaluation, its main purpose was to "Improve the cognitive and socio-emotional development of students attending the lowest-performing 10% of primary schools" (Ministry of Hacienda, 2001, p. 7). Similarly, a 2005´s evaluation said the program´s main purpose was to attend "the lowest- performing 10% of primary schools for the purposes of strengthening core cultural and academic abilities of students and improving their language and math knowledge and skills" (Martinic et al., 2005, p. 4).

Following these purposes, P 900 defines that "the whole school is its main intervention unit" (Martinic et al., 2005, p. 4). The expectation of the program is that by changing both the school´s organizational culture and the pedagogical practices of teachers through multiple means, school improvement –and the cognitive and socio-emotional development of students- will be aimed. According to Sotomayor (2006), P 900 corresponds to a combination of the school effectiveness approach to school improvement (Edmonds, 1979; Coleman, Hoffer & Kilgore, 1981, 1982; Sammons et al., 1995) and the Chilean popular education movement from the 1980s (Bengoa et al. 1987; Krichesky, 2011). On one hand, the policy is based on the notion that school improvement will be the result of a school-wide intervention involving school leadership, school climate, teaching and learning issues, etc. On the other hand, the program rests on the notion that school improvement, particularly the socio-emotional development of students, will occur as a consequence of the active participation of families and people from the local community in the overall initiative.

P 900 materializes through *four main courses of action*. The first course of action refers to the *elaboration and delivery of school texts, library materials and other educational resources* to participating primary campuses. The second course of action corresponds to the *professional development of teachers* by implementing *Teacher Workshops* that refer to "a regular space of participation for teachers within schools where they can share thoughts and experiences, innovate on their pedagogical practices, and work on specific language and math curriculum implementation issues" (Santiago Consultores & Asesorías, 2000, p. 6). These workshops were generally leaded by Ministry of Education's Provincial Offices whose supervisors regularly met with teachers within schools for professional development purposes. The third course of action refers to the *attention of student diversity* by implementing *Learning Workshops* for 3rd and 4th grade special education students. These workshops had for purpose developing the creativity and self-esteem of participating students, were held on alternate schedule to the regular school day and were commanded by a young monitor coming from the local community. The fourth and last course of action corresponds to *educational management efforts* which imply various specific actions at the school leadership level, particularly "creating *School Management Teams* composed of the school principal, teachers and other school staff, and elaborating *School Institutional Projects* that describe the main organizational and educational purposes of the school" (Santiago Consultores & Asesorías, 2000, p. 7).

In 1998 a fifth course of action related to *the relationship between school and families* was added. This intervention area mainly consisted on the elaboration of educational materials for promoting parents´ participation on school matters, the implementation of various *Family Workshops* for bringing parents closer to the school, and to the implementation of adult education for parents without primary and/or high school diploma. Additionally, that same year P 900 expanded the *attention to student diversity* component by contracting assistant teachers for supporting all 1st grade teachers working with special education students in courses with more than 35 children (Ministry of Education, 2005). Most of assistants contracted were young women who had graduated from high school and belonged to the local community (Martinic et al., 2005).

At this point, a first difference with the Shared Support Program (PAC) appears. Whereas PAC takes the classroom setting and four key academic areas (language, math, science and social studies) as its main intervention units, P 900 focus of intervention is *school-wide* and *comprehensive*; it intervenes on multiple school issues and levels. Congruently, P 900 policy design is based on a notion of school improvement that goes beyond strict academic or disciplinary issues to include other relevant issues such as the development of the creativity and self-esteem of students, the integration of people from the local community to the process teaching and learning and the active inclusion of parents to students´ education.

Despite this important difference, P 900 shares with PAC some relevant features. First, both share a common list of direct policy targets: teachers, students, the school principal and other school staff –although P 900 may include other additional targets-. Second, both posit student learning as the ultimate goal of the program –although P 900 includes a socio-emotional component that PAC does not-. Third, both promote a central role to each Ministry of Education´s Provincial Office and its supervisors to guide and support the program´s implementation process through regular visits to participating schools. Fourth, both intend to directly affect how teachers work with students within classrooms by providing them with various pedagogical resources and materials, particularly for supporting language/math teaching and learning.

Similarities stop there. Whereas provincial offices in P 900 directly implement *Teacher Workshops* with teachers where they can talk and reflect about their practice and introduce ameliorations, provincial offices in PAC provide direct supports to School Leadership teams which then are responsible for working with teachers. In other words, while in P 900 a direct Ministry of Education/teachers relationship exists (a relationship that also sometimes extends to the school principal and other school staff), in PAC that relationship is always mediated by School Leadership teams.

Another relevant difference on working with teachers refers to the type of pedagogical resources and materials they receive from each program. Whereas in P 900 teachers receive a broad set of workbooks, library materials, didactic sets and hornbooks, in PAC not only they receive these types of resources but also detail 6-week period and day-

to-day classroom plans. These plans determine that PAC provides teachers with a highly-prescribed curriculum to be implemented and adjusted. PAC gives the model, and teachers have to adapt it. In comparison, P 900 leaves classroom plans more open and focuses on ensuring that teachers have the opportunity to regularly share and reflect about their pedagogical practices. As a result, while PAC policy design tends to be more authoritative and pragmatic on its curriculum orientations, P 900 adopts a more *dialogical and open approach* to teaching and learning; teachers will be provided multiple means and resources that would allow them to collectively reflect on their practice and to better prepare and develop their lessons with students.

In sum, despite PAC and P 900 share a similar interest on student progress and learning, attend similar kind of vulnerable/low-performing schools, and base their technical-pedagogical support on a regular relationship between Ministry of Education's Provincial Offices and participating schools, both adopt and use different strategies and types of policy tools for aiming their goals. Whereas PAC develops strategies for supporting specific academic areas and promotes the implementation of specific policy tools for the use and analysis of student results and the observation of teachers, P 900 develops strategies for supporting different school issues (academic and non-academic) and promotes the implementation of various policy tools affecting different policy targets (not only teachers and students, but also other school staff, parents, families and people from the local community).

The LEM Strategy versus the Shared Support Plan

The *LEM Strategy* was an educational program implemented by the Chilean Ministry of Education between 2002 and 2009. During this period it attended more than 400 schools per year on average. According to Sotomayor (2006), the program was a response to the poor academic results obtained by primary school students in 1999 as reported by national evaluations, to the belief that by improving students' language and math knowledge and skills they will be better prepared to succeed and contribute to society, and to the confirmation by several studies that the implementation of the curriculum within classrooms was incomplete and diffuse despite previous efforts.

The combination of above factors influenced the design and implementation of a program focused on supporting/improving language and math teaching and learning of students attending vulnerable/low-performing schools from kinder to 4th grade. The initiative replaced the comprehensive approach adopted by P 900 with a more *circumscribed perspective*; the school as a whole was no longer the focus of intervention, and classrooms became the primary intervention unit (Sotomayor, 2006).

LEM main goals were "to contribute to language and math student learning improvement from kindergarten to 4th grade, to transform pedagogical practices of teachers and to improve the pedagogical management of schools" (Ministry of Education, 2005, p. 21). Its predominant strategy consisted on developing language and math didactic units for schools and implementing them through a *dialogical process of collaboration* between primary school teachers and a teacher consultant working from outside the campus and supported by university partners. The model was partially inspired by the notion of *reflective practitioner* developed by Schon (1983) which posits the idea that professional development of teachers should not only be based on instrumental problem solving or specialized scientific knowledge but also –and mainly- on reflection in action: the reflection of teachers about their own teaching in practice (Schon, 1983).

According to Rosas and colleagues (2005), the model was structured on *five main components*. The first component refers to *the construction of Ministry of Education/University partnerships*. Meanwhile the Ministry was primary responsible for the design and financing of the overall LEM strategy, four universities across the country became primary responsible for the implementation of the initiative particularly regarding the selection, training and accompaniment of teacher consultants.

The second component corresponds to the *elaboration of didactic units* in language and math. These units, which were initially developed by university's disciplinary experts, offered teachers a common structure to work with students and were expected to be implemented on two-week periods three to four times a year. Didactic units contained lesson plans, didactic explanations to the teacher, working sheets for students, and assessment materials. Overall, the idea was to transform these units in *models for teachers' lesson planning* during the year.

The third component refers to a *consultancy model of collaborative work* between an external teacher consultant (one for language and one for math) and primary school teachers of participating schools. The model included three key elements: the training of teachers on language and math curriculum contents and skills by the teacher consultant, the accompaniment of teachers in the process of implementing didactic units, and the provision of feedback to teachers about their classroom work. This scheme allowed teacher consultants to work directly with teachers and to enter the classroom which was an unknown space for previous targeted education support policies within the country.

The fourth component corresponds to the *development of organizational conditions for LEM implementation* which extended the work of the teacher consultant to include not only teachers but also school administrators, particularly the principal and the assistant principal in charge of technical-pedagogical issues. Through this component, teacher consultants were expected to develop training workshops and meetings with school leaders and staff focusing on the LEM strategy and its sustainability over time.

The fifth and last LEM component refers to the *articulation between the teacher consultant and the Ministry of Education*. Such articulation was expected to occur between the teacher consultants in language and math and the Ministry of Education Provincial Office supervisor(s) in a way that allowed the Ministry to directly support the insertion of teacher consultants in schools and to oversee the implementation of the overall strategy.

At this point, some similarities between the Shared Support Plan (PAC) and the LEM strategy can be distinguished. First, both share a *disciplinary focus* on language and math –although PAC also intervenes on science and social studies in 3rd and 4th grade- Second, both take *the classroom as main level of intervention* –although PAC also intervenes at the organizational level-. Third, both have *a classroom observation and feedback to the teacher component* that is crucial on their perspectives for aiming school improvement. Fourth, both share two *common direct policy targets*: teachers and students.

Despite these commonalities, PAC and LEM possess several relevant differences. First, whereas PAC includes the principal and assistant a principal as direct policy targets, LEM only considers them secondarily or indirectly. Second, while PAC primarily works

with school leadership teams which then implement strategies with teachers, LEM works with teachers directly with no internal intermediaries. Third, whereas PAC provides teachers with a highly-prescribed curriculum to implement, LEM only provides them with *circumscribed full lessons plans* distributed across the year that function as models for teachers' lesson planning work. Fourth, while PAC delivers support to schools through supervisors working at each Ministry of Education's Provincial Office, LEM accompany schools through teacher consultants which are selected, trained and supervised by external universities that work in partnership with the Ministry of Education. These teacher consultants are key actors in LEM's implementation process and are responsible for supporting primary school teachers through a dialogical and collaborative professional relationship.

In sum, despite PAC and LEM share a disciplinary focus concentrating efforts on improving language and math student learning, each program takes a very different approach for aiming its goals. On one hand, PAC concentrates its efforts on building a strong school leadership team capable of commanding teacher instructional changes and student learning improvements. On the other hand, LEM concentrates its efforts on strengthening teachers' pedagogical capacities directly by providing them with didactic units and direct professional support. On one hand, PAC conceives and promotes the implementation of specific assessment devices and the use and analysis of student data as key elements for student progress. On the other hand, LEM conceives and promotes a dialogical and collaborative relationship between the teacher and the teacher consultant as key aspect for school improvement. In simpler terms, whereas PAC believes that student academic/disciplinary learning will be the result of a data-driven and informed decision making culture, LEM believes that such learning will be the result of the modeling that didactic units provide and the dialogical and collaborative relationship that teachers and an external agent generate.

How has school improvement been understood by targeted education support policies in Chile?

This section of the paper elaborates on previous ones and develops an integrative analysis and comparison between the different school improvement conceptions behind each targeted education support policies considered throughout the article. The analysis allows establishing aspects of continuity and change among policies and allows positioning the Shared Support Plan (PAC) within specific school improvement traditions that depart from dialogical and open perspectives to embrace a more focused, prescriptive, pragmatic and data-driven approach to school improvement. The chapter ends up explaining how main tensions and contradictions within PAC´s policy design are related to the different education policy traditions that permeates it, and elaborates a tentative answer about which of these perspectives may be followed when implementing the program for successfully aiming the goal of school improvement.

Conceptions of school improvement behind education policy designs

As said earlier, the P 900 School Program adopted a *school-wide* and *comprehensive* approach to school improvement; it simultaneously intervened on multiple school issues and levels. As a result, its design was based on a notion of school improvement that goes beyond strict academic or disciplinary issues to include other relevant issues such as the development of the creativity and self-esteem of students, the integration of people from the local community to the process teaching and learning and the active inclusion of parents to students´ education. In terms of educational traditions, P 900 can be considered a combination of the school effectiveness approach to school improvement (Edmonds, 1979; Coleman, Hoffer & Kilgore, 1981, 1982; Sammons et al., 1995) and the Chilean popular education movement from the 1980s (Bengoa et al. 1987; Krichesky, 2011).

In contraposition, the LEM Strategy adopted a *circumscribed perspective*; the school as a whole was no longer the focus of intervention, and classrooms became the primary intervention unit (Sotomayor, 2006). LEM´s predominant strategy consisted on developing language and math didactic units for schools and implementing them through a

dialogical process of collaboration between primary school teachers and a teacher consultant working from outside the campus and supported by university partners. Overall, the program believed that student learning would be the result of the modeling that didactic units provide to teachers and the dialogical and collaborative relationship created between teachers and an external agent. In terms of educational traditions, the model was partially inspired by the notion of *reflective practitioner* developed by Schon (1983) which posits the idea that professional development of teachers should not only be based on instrumental problem solving or specialized scientific knowledge but also –and mainly- on reflection in action: the reflection of teachers about their own teaching in practice (Schon, 1983).

As compared to previous targeted education support policies, the Shared Support Plan (PAC) can be described as a specific kind of policy that focuses on intervening on key academic or curricular issues, but which also intervenes at the school organizational level. On one hand, PAC provides schools with a highly-prescribed programme in language, math, science and social studies. These policy tools seek to organize, schedule and optimize the implementation of the curriculum. As a result, the program is *focused* rather than comprehensive, and *disciplinary* and *prescriptive* in nature.

On the other hand, PAC requires participating schools to create a School Leadership (ELE) team, and demand school leaders to use and implement various policy tools and related strategies: classroom observations, diagnosis tests of student knowledge and abilities, intermediate and final student evaluations and reports on student test results all of which motivate school actors to consider/analyze teachers´ behaviors or students´ performances and to implement specific and related school improvements These strategies urge both school leaders and teachers to develop a *data-driven decision making culture* within the school and within classrooms.

As a result of these trends, PAC may be considered a combination of traditional top-down approaches to policy design and implementation that seek strict compliance (O´Donnell, 2008), and data-driven approaches (Wayman & Cho, 2009) that seek to empower school actors for decision-making (Barrera-Osorio et al., 2009; Caldwell, 2005).

Considering these developments, it can be said that targeted educational strategies of support in Chile have varied through time in terms of their focus, areas of intervention and types of policy tools. First, variations transit along a continuum that locates on one end broad strategies that intervene in different school aspects –*comprehensive approach*-, but do not focus on any particular area or academic discipline following a specific didactic perspective (P-900), and on the other end, strategies of support that are more specific –*focused or circumscribed approach*- and which only focus on concrete academic areas (LEM). PAC can be located halfway between these extremes, as a strategy that primarily focuses on specific disciplinary areas, but also incorporates strategies for change at the organizational level.

Second, variations transit along a continuum that locates on one end strategies of support that include both *academic and non-academic areas of intervention* seeking both the cognitive and socio-emotional development of students (P 900), and on the other end, strategies that mainly focus on *disciplinary and academic areas* seeking the cognitive and instrumental development of students (LEM and PAC).

Third and last, variations transit along a continuum that locates on one end strategies of support that prescribe a specific curriculum programme to follow during the whole year –*prescriptive approach*- (PAC), and on the other end, strategies that promote a more open and reflective perspective to curriculum implementation –*dialogical approach*- (P 900 and LEM).

The above policy continuums are only a piece of the whole picture. Relationships, similarities and differences between education policies analyzed in this paper are far more complex and relate to the different educational traditions and practices that permeate within each policy design. For example, P 900 and PAC may differentiate on their focus (*comprehensive* versus *circumscribed*) and areas of intervention (*academic & non-academic* versus *mainly academic*). However, both share the practice of supporting school campuses through Ministry of Education´s Provincial Offices. Similarly, LEM and PAC may differentiate on their approaches to school improvement; the first one conceives it as a consequence of the *dialogical practices* of teachers, the second one as a result of *data-driven decisions*. However, both share a disciplinary focus on language and math subject

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matters, and both conceive classroom observations and feedback to the teacher as key components for improving teaching and learning.

Understanding tensions and contradictions of PAC´s policy design

As said earlier, PAC may be considered a combination of traditional top-down approaches to policy design and implementation that seek strict compliance (O´Donnell, 2008) and data-driven approaches (Wayman & Cho, 2009) that seek to empower school actors for decision-making (Barrera-Osorio et al., 2009; Caldwell, 2005). It is this combination of approaches which help understanding main tensions and contradictions within PAC´s policy design.

Data-driven decision making springs from an educational perspective that posits as one of its fundamental principles the idea that individuals that are affected by educational decisions, and who are responsible for implementing the decision, should be involved in the process of decision-making. The approach derives from school decentralization and school-based management perspectives (Barrera-Osorio et al., 2009; Caldwell, 2005) that seek "to empower school staff by providing authority, flexibility and resources to solve educational problems particular to their schools" (David, 1989). In PAC´s case, this data-driven culture primarily permeates over the monitoring and evaluation of teacher performance and student learning outcomes (by using classroom observations, diagnosis tests of student knowledge and abilities, intermediate and final student evaluations and/or reports on student test results). However, it does not include curriculum development or the procurement of educational materials; in these cases, prescription from above is preferred.

Prescription of curriculum plans and the procurement of educational materials on a top-down fashion refer to an education policy perspective (O´Donnell, 2008) that believes that productive school improvement will be the result of how well an intervention is implemented in comparison with the original design. This is what is called fidelity of implementation. According to O´Donnell (2008), several criteria are used for measuring such fidelity: (a) adherence –whether the components of the intervention are being delivered as designed-, (b) duration –the number, length, or frequency of sessions implemented-, (c) quality of delivery –the manner in which the implementers deliver the

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program using the techniques, processes or methods prescribed-, (d) participant responsiveness –the extent to which participants are engaged by and involved in the activities and content of the program, and (e) program differentiation –whether critical features that distinguish the program from the comparison condition are present or absent during implementation.

All above criteria determine an approach to policy design and implementation where actions of key implementers are judged in function of how much they use, put in practice and/or perform according to the policy model or scheme proposed. In PAC´s case, this approach mainly materializes through the highly-prescribed curriculum plans the program delivers to schools. The slogan reads "if campuses implement these curriculum plans, school improvement will be aimed."

At this point, is important to acknowledge that fidelity of implementation might also permeate other policy tools such as classroom observations and reports on student test results. Is true that these latter devices mainly refer to a data-driven approach that seeks to empower school actors' decision-making power rather than to tell them what to do, but if those are only to be implemented in accordance to the number, length, frequency and manner prescribed, they might not fulfill all its potential. In other words, the data-driven character of PAC´s monitoring and evaluation tools does not guarantee that such approach will be implemented accordingly within schools; if campuses do not know how to use/adapt/ transform them, they might take them as another prescription to follow.

Similarly, despite PAC´s curriculum plans primarily represent and embody the fidelity of implementation approach, school actors might decide to transform them for fulfilling "their own purposes". This is teachers might adapt and change curriculum plans according to students needs and diversity, their own teaching and learning emphases, the pedagogical tradition of the school, etc. Such adaptation implies that the prescriptive character of these policy tools can be called into question when implementing them in practice. According to Park and Datnow (2012), this is exactly what has happened with a program called Success for All (SFAF) in the United States. They say, "no matter how prescribed the reform model, intermediaries of the program are not merely conveyors of information or coordinators of resources but participants in the co-construction process of

reform" (Park & Datnow, 2012, p. 403). Similar findings emerge from an exploratory study about PAC´s implementation in Chile (Astudillo & Imbarack, 2012). School leadership team members and teachers themselves seem not to be not mere repliers of policy mandates, but co-constructors of PAC´s program within schools. More specifically, these school actors adapt and transform PAC policy devices in order to "make them fit" with current school needs and/or previous teaching and learning practices in vogue within their campuses.

At this point, the tensions and contradictions of PAC´s policy design can be better understood. How much of the curriculum prescription should teachers follow? How much curriculum adaptation should they perform? Should schools concentrate on developing specific classroom norms for ensuring a culture favorable for learning or should they go beyond it to embrace broader school culture issues? Should schools define PD issues for teachers mainly based on information provided by specific PAC devices or should they consider broader teacher needs?

From a strict PAC design perspective the answer is not clear. The combination of policy tools and orientations it provides may allow delivering an answer in one way or another. Furthermore, the combination of educational traditions that PAC embodies reinforces such indetermination. On one hand, the fidelity of implementation approach posits that curriculum plans, classroom norms orientations and information provided by other PAC devices should be taken as a scheme to strictly follow. On the other hand, the data-driven and school-based management traditions suggest that adaptation/transformation of the models and information provided by PAC devices is what should be done in order to fulfill school improvement.

From a policy implementation perspective the answer remains elusive. However, previous research (Honig, 2006; Park & Datnow, 2012) and initial evidence collected on PAC´s program (Astudillo & Imbarack, 2012) suggest that complete fidelity of implementation is not attainable because in order to appropriate the policy, implementers necessarily need to adapt and transform it to "their own terms". Such adaptation implies co-constructing PAC in the process of implementation (Datnow, 2006) and finding the right balance between policy prescription and adaptation (Honig 2006; Park & Datnow, 2012).

Colloraly: Which targeted education support policy is more effective? For what is effective?

Considering all previous developments, one might ask which of the targeted education support policies analyzed in this paper is more effective. Which produces more yields in terms of student achievement and school improvement?

According to previous evaluations (Santiago Consultores & Asesorías 2000; Martinic et al. 2005), P 900 yields positive but small effects over student achievement and such effects vary depending on the period analyzed. Positive effects are particularly significant during the first three years of operation of the program (1990- 1992) and between 1997 and 1999. In addition, positive effects mainly occur in the first three years of operation of the program within schools, however beginning in the fourth year such effects standstill.

Concerning the LEM Strategy (Rosas et al., 2005), evaluations also yield positive but small effects over student achievement, particularly on students´ math results. However, the program does not produce significant effects over students´ language results. Similarly, preliminary evaluations of the Shared Support Program reveal positive significant results for participating students, particularly on mathematics performances. However, these results refer to national evaluations performed when the program had only 7-8 months of operation. As a result, information from incoming years is needed for a more complete consideration of PAC´s impact over student achievement.

Taking into account data and results from above, it can be acknowledged that targeted education support programs in Chile since 1990 have yields similar positive but small effects over student achievement as measured by national tests. Consequently, answering the question about which policy is more effective in terms of achievement does not discriminate which program better meets the goal of school improvement.

In this scenario, the question of effectiveness should not only be about which is more effective but also for what is effective. In other words, the most relevant question consists on questioning the type of school practices and culture each of these programs seek. P 900 pursues to develop the academic and socio-emotional development of students

by implementing a school-wide intervention and involving people of the local community in the process. LEM seeks to develop the academic development of students in two core subject matters –language and math- by modeling the pedagogical work of teachers and by promoting their reflectiveness and dialogical capacities. Finally, PAC seeks to improve student learning in four core academic areas by implementing a highly-prescribed curriculum programme and by developing a data-driven decision-making culture within the school.

In this context, each targeted education policy analyzed favors very different school practices and culture. Whereas P 900 develops a culture of collaboration between different school actors and between school actors and the community, LEM focuses on developing a culture of collaboration and reflectiveness between teachers and between them and an external agent. Finally, PAC focuses on implementing a myriad of pedagogical and organizational practices that seek to better implement the curriculum and to provide evidence to school actors for school improvement. Which of these alternatives is more desirable? The answer to the question is not strictly rational; it involves political, normative and emotional dimensions that surpass the purposes of this paper. In any case, the final option –or combination of approaches- selected requires of society´s deliberation about which should be the final educational purposes and goals for the Chilean educational system.

Finally, this paper posits that whatever the alternative selected the challenge consists on implementing it within schools trying to find a balance between policy prescription and adaptation; co-constructing the policy in practice between designers and implementers. In addition, this paper suggests that any educational policy of support establishes certain levels and areas of intervention, leaving out other aspects that may be equally relevant. As a result, from this article´s perspective, any support policy considered in isolation –either P 900, LEM or PAC- always appears as limited and partial, and needs to be complemented with other educational policies and practices to better reach educational improvement. In simpler terms, no single education policy will meet the goal of improving education processes and outcomes alone or by itself: The concerted effort of various

initiatives, educational levels and actors –working from within and outside the school- may be needed for doing so.

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