



Learning to foster autonomous motivation – Chilean novice teachers' perspectives

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1. Introduction

Motivation is often identified as a central factor for effective learning. For the successful acquisition of a foreign language, sustained and self-determined engagement plays a particularly important role (Ushioda, 2008). Therefore, the internalisation of strategies that foster learners' long-term, ideally self-regulated motivation should be an indispensable aspect of second language (L2) teacher education.

Research on motivational strategies in L2 teaching has largely been influenced by Dörnyei and Csizér's (1998) groundbreaking quantitative study on teachers' perception of the importance and frequency of use of a set of motivational strategies, later modified and replicated across cultural contexts (Asante, Al-Mahrooqi, & Abrar-ul-Hassan, 2012; Cheng & Dörnyei, 2007). Guilloteaux and Dörnyei (2008) complemented this approach with structured classroom observations and student self-report questionnaires to gauge the strategies' effectiveness on learner engagement, again followed by various similar studies (Papi & Abdollahzadeh, 2012; Ruesch, Bown, & Dewey, 2012; Sugita McEown & Takeuchi, 2014), including some interventions (Arabai, 2014a, 2014b; Moskovsky, Arabai, Paolini, & Ratcheva, 2013). Increasingly, qualitative research approaches have helped to gain a deeper insight into the 'hows' and 'whys' of the use –or non-use– of motivational strategies, possible influences being the teachers' cultural background (Kobylnski & Heinz, 2018), their L2 proficiency, or their experience (Maeng & Lee, 2015). Providing richer descriptions of students' and/or teachers' perspectives (Astuti, 2016; Glas, 2016), these studies have pointed out the limitations of

'checklist based research' and have brought to light important issues such as the importance teachers give to the 'feasibility' of certain strategies (Lee, 2015), the perceived links between teachers' knowledge of motivational theories and pedagogical practice (Cowie & Sakui, 2011), and incongruences between teachers' conceptualisations of motivation and their practices (Muñoz & Ramirez, 2015). Among the variety of research contexts and approaches across the world, certain trends can be determined (Lamb, 2017). First of all, teachers' use of motivational strategies can have a noticeable effect on learners' motivation. Then, among teachers, establishing positive relationships with the students is generally considered very important; however, how appropriate autonomy support is deemed as a motivational strategy appears to depend on cultural context with it seeming to be more commonly applied in Europe than in other regions. Finally, in general, teachers seem to use few motivational strategies, especially in contexts that do not usually support a reflective teaching culture (Kubanyiova, 2012).

Despite the surge of interest in the area, many questions remain unanswered, and various aspects are still underrepresented in research, especially a developmental perspective that focuses on novice teachers as participants,¹ secondary schools (vs. universities) as research contexts, and Latin America as a backdrop new to widespread English-as-a-Foreign-Language (EFL) teaching. In his recent review article on the 'motivational dimension of language teaching', Lamb (2017) suggested that more in-depth qualitative studies are needed to understand teachers' developing cognitions about motivation in con-

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¹ Poor student motivation is one of the reasons given for dissatisfaction among novice teachers (Fantilli & McDougall, 2009), and successful professional development at the beginning of a teachers' career is key for teacher retention across educational systems (Hong, 2012).

text, or 'emergent sense making in action' (Kubanyiova & Feryok, 2015). Also, research 'should be done WITH rather than ON teachers' (Lamb, 2017, p. 335), and should include controversial topics, e.g. the use of rewards in schools, problematised especially by researchers following self-determination theory (SDT).

This qualitative study hopes to address several of these issues: It is situated in Chile, where increased EFL teaching and a recent reform of the teaching career are part of a changing educational landscape. Focusing on novice teachers' voices, it adds a research perspective that provides insights into the actual *learning process* of motivational strategies. It also brings to light contradictions between research-based motivational approaches taught at university, and secondary school contexts in which teachers tend to use a controlling motivating style based on 'quick' extrinsic sources of motivation, with detrimental consequences on essential long-term motivational aspects such as self-initiative, a desire to continue, or a preference for challenge (Reeve, 2009). These contexts can be particularly challenging for novice teachers during their professional socialisation, as they are just beginning to choose, use, and develop motivational strategies. Thus, this paper aims to answer the following questions: How do novice teachers describe, explain, and react to the motivational style of school cultures in which extrinsic incentives appear to be used as the most salient 'motivational strategy'? With the support of inquiry-based reflection based on SDT, but without specific training in motivational strategies, how can novice teachers take agency to gradually foster more autonomous motivation in their classrooms and thus make new strategies 'their own'? Finally, how can their participation in research contribute to a solid knowledge base about motivational challenges in the given context, upon which relevant future professional development interventions may be built?

The theoretical framework that informed the design of the data collection tools, as well as guiding the data analysis, includes SDT and sociological as well as socio-cultural approaches to teacher learning. After giving details about the background, participants and methodology, the findings part is divided into two sections: it first provides an overview of novice teachers' descriptions and explanations of a motivation-controlling school culture, and their socialisation process into it; then, two teachers, whose experiences were considered particularly significant, narrate their quest to create a more autonomous motivational climate in their classrooms. The discussion aims to link the presented findings to existing research, and proposes a five-step framework to help teachers move from control towards autonomy support.

2. Theoretical framework

2.1. Motivation and autonomy

Motivation is a complex area in teacher development, due to the intricacies of human motivation and the consequent wealth of different, sometimes competing, theories in educational psychology. A major framework in motivation research is SDT (Deci & Ryan, 1985, 2012). Evolving since the 1970s, it contested behaviourist views in which rewards played a central role for coaxing people into expected behaviours. It is based on the idea that intrinsic motivation, as 'the doing of an activity for its inherent satisfactions rather than for some separable consequence' (Ryan & Deci, 2000, p. 56) is crucial for human growth, related to curiosity-driven behaviour, exploration, and creativity, and identified as an indicator of mental health, vitality, and sustainable long-term motivation (Deci & Ryan, 2012; Núñez, Fernández, León, & Grijalvo, 2015). The centrality of self-determination and autonomy as fundamental psychological conditions for in-

trinsic motivation to thrive has turned SDT into the principal underpinning of autonomy-supportive teaching (Reeve, 2006, 2009, 2016) and L2-specific pedagogy for autonomy (Jiménez Raya, Lamb, & Vieira, 2007, 2017).

Intrinsic motivation is sometimes presented in a simplistic dichotomy with extrinsic motivation, where human actions are driven by the pursuit of external goals. SDT, however, establishes careful distinctions along a continuum of four different types of extrinsic motivation, located between amotivation (the absence of motivation) at one extreme and intrinsic motivation at the other. They differ in the perceived origin of motivational regulation. The more 'external' the source of motivation - individuals acting to avoid punishment or to attain rewards offered by others - the closer it is to amotivation. The more 'integrated' the source of motivation into one's self-concept and congruent with self-determined goals, the closer it is to intrinsic motivation (Ryan & Deci, 2000; Vallerand & Ratelle, 2002); L2 learners might not find it intrinsically pleasurable to use a dictionary or memorise vocabulary, but if this harmonises with their personal goal of improving proficiency, the autonomy felt during the activity is similar to that of intrinsic motivation. To overcome misconceptions related to the intrinsic-extrinsic dichotomy, SDT researchers have increasingly opted for the terms 'autonomous' versus 'controlled' motivation, where autonomous motivation includes intrinsic motivation and integrated forms of extrinsic motivation, whereas controlled motivation emphasises feelings of alienation stemming from external control (Deci & Ryan, 2012).

The fact that intrinsic motivation is conceptualised as independent from external incentives has led some educational psychologists to the conclusion that teachers' opportunities to influence intrinsic motivation are limited (Brophy, 2013; Valenzuela, Muñoz Valenzuela, Silva-Peña, Gómez Nocetti, & Precht Gandarillas, 2015). This assumption is challenged by SDT's observation that intrinsic and autonomous states of motivation are facilitated when the environment in which humans operate (e.g. classrooms) caters for three innate psychological needs: autonomy, competence, and relatedness. Conversely, the more motivation control is exerted by people in positions of power (e.g. through rewards or testing), the more likely it is that the autonomous motivation of those under their guidance is reduced. One of SDT's most important, albeit controversial, findings is the *undermining effect*: existing intrinsic motivation can diminish severely when people receive rewards on actions that were initially motivated intrinsically (Deci, Koestner, & Ryan, 1999). This effect has been confirmed in several studies and has recently found neuroscientific support (Di Domenico & Ryan, 2017). However, as many teachers realise, it is sometimes necessary to use persuasive measures to engage students in uninteresting tasks –using extrinsic motivators– so they can internalise and automatise important knowledge or skills:

'Because these behaviors are not interesting, people are not intrinsically motivated to do them, so extrinsic motivation must come into play. (...) Fortunately, research has shown that extrinsic motivators are less likely to be detrimental if the motivators are implemented in an autonomy-supportive social context' (Deci & Ryan, 2016, p. 14).

For example, performance-contingent rewards can increase learners' sense of competence, supporting more autonomous motivational states (Deci & Ryan, 1985; Houliort, Koestner, Joussemet, Nantel-Vivier, & Lekes, 2002).

The application of SDT to educational contexts has identified specific teacher behaviours that can create classroom environments conducive to greater autonomous motivation, e.g. incorporating students' contributions into teacher decision-making; energising students' internal motivational resources (curiosity or personal goals); giving explanatory foundations for uninteresting tasks; providing choice; or al-

lowing students to work at their own pace (Reeve, 2016, p. 131; see also Reeve, 2006, 2009).

2.2. Teacher learning for autonomy support

Research on autonomy-supportive teaching based on SDT (Reeve, 2006, 2009) has provided plenty of evidence that adopting an autonomy-supportive motivational style holds benefits for both learners and teachers, including better learner engagement, class attendance, preference for optimal challenge, deeper processing during learning, improved task performance, and greater life satisfaction in general. It has also identified reasons why teachers -despite this evidence-might prefer to control motivation over choosing autonomy support, classifying the reasons into pressure from above (cultural and institutional expectations), from below (students' passivity), and from within (beliefs about the effectiveness of rewards and personal controlling dispositions) (Reeve, 2009). The question is, how can novice teachers, i.e. teachers 'still undergoing training, who have just completed their training, or who have just commenced teaching and still have very little (e.g. less than two years) experience behind them' (Gatbonton, 2008, p. 162), learn to foster autonomous motivation, if the school culture in which they are learning to teach is mainly marked by extrinsic motivation control? How can they resist those pressures and develop agency towards more autonomy support?

Teacher socialisation research (Hoy & Woolfolk, 1990; Staton & Hunt, 1992; Zeichner & Gore, 1990) identified different phases and forces in teacher professional development that might make the appropriation of new ideas taught in university-based teacher education less effective, leading to the perpetuation of ineffective, conservative practices, rather than their transformation. The apprenticeship of observation (teachers' pre-training experiences as learners at school; Lortie, 1975), and the socialisation into workplace cultures (after or in parallel with university teacher education) are known to be powerful sources of teacher learning, decisive in transmitting partially tacit knowledge about what is acceptable or expected from teachers in their daily actions. Different socialising agents, groups of people who interact with novices and play specific parts in the transmission of culturally valued practices, include mentor teachers, university supervisors, school management staff, parents, and pupils (Staton & Hunt, 1992; Su, 1992). 'Mismatches' among different socialising influences (Farrell, 2003) can lead to serious tensions in novice teachers' identity development (Pillen, Beijaard, & den Brok, 2013).

Critical approaches to teacher socialisation place greater emphasis on the importance of individual and collective agency for gradual change in educational praxis (Zeichner & Gore, 1990), and the 'sociocultural turn' in teacher education research has opened new perspectives for the development of teacher learning in social contexts (e.g. Barahona, 2016; Ellis, Edwards, & Smagorinsky, 2010; Johnson, 2009). In order to provide instances for deep reflection that support the appropriation and integration of new pedagogical tools (Grossman, Smagorinsky, & Valencia, 1999), including concepts and practices e.g. for more learner autonomy support, and to help novices resist socialisation into traditional practices, tasks within teacher education programmes have increasingly turned more inquiry-based, equipping teachers with tools to systematically observe and analyse their teaching contexts (Burns, 2010; Johnson, 2009; Johnson & Golombek, 2011; Kumaravadivelu, 2012). Through a professional dialogue with learners, other teachers, and theory, they can identify contextual constraints, explore 'spaces of freedom', and identify 'spaces for manoeuvre' (Vieira & Moreira, 2008, p. 280) to come up with innovative solutions that help them develop and gradually trans-

form their practice, and can thus support their students' autonomous motivation better.

The reflective (self-)examination of teacher cognitions has also been identified as a fruitful area for professional development. Through this, underlying tacit and even conflicting beliefs and knowledge, e.g. clashes between motivation theories learned at university and personal experiences in school contexts, are verbalised so they can be addressed, challenged if necessary, and aligned with the teachers' practice to best support their students' learning (Borg, 2011; Farrell, 2016). This verbalisation commonly materialises in oral or written narrative form (Barkhuizen, Benson, & Chik, 2014; Farrell, 2006; Johnson & Golombek, 2002, 2011; Taylor, 2017).

When aiming to foster practices that support learners' autonomous motivation, it is important to keep in mind that teacher development, likewise, needs to support teachers' autonomy. As Assor, Kaplan, Feinberg, and Tal (2009) put it: 'SDT may help educators design reforms that promote new visions without suppressing teachers' voices. Such reforms would combine visions coming from sources outside of the school with teachers' voices to develop powerful growth-promoting change processes in schools.' (p. 235). This implies that pedagogy for autonomy, rather than seeing learner autonomy as a 'matter of all or nothing', allows for local variations of learner autonomy, for a 'continuum along which various learning situations may be placed', depending on the context and the degree to which teachers and students are prepared to take on new roles (Jiménez Raya et al., 2007, p. 5).

3. The study

The goal of the present qualitative study, centrally designed as a multiple case study (Dörnyei, 2007; Duff, 2008), is to examine the process by which Chilean novice teachers of English start developing strategies to motivate their students for learning and specifically to identify psychological and contextual factors affecting this development. The focus selected for this paper is the widespread use of extrinsic incentives as a limiting contextual factor.

3.1. Context

In Chile, most teacher education for secondary school teachers consists of four-to five-year undergraduate programmes in which teacher preparation is integrated into subject specialism programmes. During the second, third, and fourth years, pre-service teachers (PSTs) do short teaching practica alongside subject courses (English language, linguistics, literature, pedagogy, and educational psychology). The PSTs' last semester is devoted to their final practicum and accompanying research project. PSTs gradually take over the teaching of one or two classes from their mentor teachers, who guide, monitor, and evaluate the PSTs' professional development, together with university tutors, who observe each PST about three times at their schools. The school experience is accompanied by university-based reflective workshops. In the university programme observed here, coursework consists of a small-scale exploratory action research project, for which PSTs identify a 'puzzle' at the beginning of their practicum based on observation and some data collection, come up with a solution grounded in educational research, implement an action plan, and document any changes in their students' behaviour or learning outcomes in a written report (Allwright, 2003; Burns, 2010; Smith, 2015). After this practicum, the PSTs graduate and are able to start working as newly qualified teachers. Although induction programmes for new teachers are being designed as part of a new legal framework for teachers' professional development (Centro de

Experimentación e Investigaciones Pedagógicas, 2015), they have not been fully implemented yet.

Regarding English as a school subject, in state-subsidised education, English is compulsory from year 5 onwards with 4h per week on average, usually taught in large classes. Traditional grammar-oriented instruction is still dominant, but since the 2004 launching of the English Opens Doors programme, a government initiative to improve EFL teaching in Chile, and new curricular guidelines, language teaching has started moving towards more communicative approaches. Results are low: in a 2012 measurement, only 18% of 17-year-olds were able to listen and read beyond CEFR A1 level (Agencia de Calidad de la Educación, 2013).

3.2. Participants and data collection

First, an exploratory questionnaire was applied to 22 PSTs from three different cohorts (first and second semester of 2016, first semester of 2017) of the same undergraduate ELT programme at a university in central Chile. Out of these, seventeen PSTs (thirteen female and four male), between 22 and 32 years of age, consented to participate in the follow-up interview study, making their action research coursework available to the researcher. Regarding research ethics, the participants gave written consent, being assured that their participation was voluntary, that their identities would remain anonymous, and that they could withdraw from the study at any moment. For the purpose of this paper, two participants were chosen for a closer examination of their cases (see below). As co-authors, they agreed to give up their anonymity.

The questionnaire included Likert-scale type questions asking about the importance the PSTs gave to certain factors that might influence English language learners' motivation, and the frequency of different kinds of experiences related to motivational strategies. The section of the questionnaire most relevant to this paper was related to PSTs' 'apprenticeship of observation' (Lortie, 1975), asking about motivational strategies PSTs had experienced as learners at school. The question 'How frequently did you observe your own school teachers use the following potentially motivating strategies (regardless of their success or appropriateness)?' was followed by a list of 42 teacher behaviours to be scored according to frequency, from 0 (never) to 4 (very often; see appendix A). They were loosely inspired by Dörnyei's (2001) compendium of motivational strategies for the language classroom, and complemented by other common teacher practices identified by the main researcher in classroom observations and discussions with PSTs. It needs to be considered that at least four years had passed since the PSTs finished secondary school. Also, the fact that they felt motivated enough to enrol in an EFL Teaching Programme at university, regardless of their experience as school students, might suggest a sample bias.

To collect perceptions about contextual factors, semi-structured group interviews were carried out during the final practicum (see appendix B). At the end of the practicum, participants were interviewed individually or in pairs, in order to complement the data gathered in the questionnaires; individually analysed questionnaire responses thus formed the basis for interview questions (see appendix C). These interviews also turned into a first opportunity for conducting member checks, followed up in later meetings or by e-mail. The five teachers from the first two cohorts were interviewed individually. However, because several teachers commented that the group interviews had been opportunities for them to learn from one another, the twelve teachers from the third cohort were interviewed in pairs. In order to minimise data corruption, the teachers were asked to jot down an-

swers to the interview questions immediately before the interview, so as to expand on their notes orally later. All interviews were carried out in the participants' native Spanish, allowing them to express themselves with maximum comfort and precision (See Table 1 for more information on data collection.)

3.3. Data analysis

3.3.1. Cross-sectional analysis

All the interviews were audio-recorded and subsequently transcribed. They were then analysed, following qualitative content analysis techniques (Miles, Huberman, & Saldaña, 2014). In a first round of analysis, the use of extrinsic incentives was identified as a recurrent theme, so all the sections related to this issue were highlighted and selected. Then, through a selective coding process, inductive and deductive categories were established in order to compare and contrast the various teacher experiences and their responses to their specific contexts. The two coders maintained ongoing meetings to ensure consistency during this process. In a final round of analysis, representative quotes for the categories and sub-categories were selected and translated into English. These mostly narrative data were analysed paradigmatically (Barkhuizen et al., 2014; Polkinghorne, 1995) for the first part of the findings section of this paper.

3.3.2. Two cases

During the process of analysis, the experiences of two teachers (see Table 2) emerged as deserving special attention. Based on a preliminary analysis of their questionnaire, interview, and coursework data, the main researcher identified them as a purposeful sample of teachers who had generated specific, agentic responses to the challenge of taking over classes whose motivation had been affected by the schools' reliance on extrinsic rewards. Therefore, she invited these teachers to write up their own cases, in order to acknowledge the ownership of the expertise gained through their exploratory practice and interview-based reflections, to generate an additional instance for professional development, and to 'create more equitable social relations between university-based research' and teacher knowledge (Johnson & Golombek, 2002, p. 3). Thus, the interview transcripts² were made available to the teachers, so that they could report their experiences in the form of a 'narrative analysis' (Barkhuizen et al., 2014; Polkinghorne, 1995), following the temporal structure of their professional development, and include some thoughts and evaluations concerning the related events (Johnson & Golombek, 2011). Following Farrell (2006), a common structure for both narratives (setting – complication – resolution – reflection) was agreed on so that parallels and contrasts could be drawn.

4. Findings

Three broad categories were identified in the data: first, characteristics of a motivation-controlling school culture; second, features of the pre-service teachers' socialisation process into this school culture; third, PSTs' agentic responses to this school culture, including the two cases mentioned above. An overview with sub-categories, definitions of the categories and sample quotes from the data is provided in Tables 5–7.

² Michelle belonged to the first cohort of participants, so she was interviewed four more times during the first year of teaching.

Table 1
Data collection.

Tool/Protocol	Purpose	Validation	Number of participants	Moment of application	Average length
Questionnaire (see appendix A)	Reflective tool Gather initial data Invite PSTs to participate in follow-up study	Consultation with experienced researcher Piloted with 5 PSTs, including a feedback item	22 PSTs	Second month of the final practicum	-
Group interviews (see appendix B)	Gather information about contextual constraints and support factors	Consultation with Chilean teacher educators Piloted with 3 PSTs	15 PSTs (3-5 per group)	Third month of the final practicum	70 min.
Individual/paired interviews (see appendix C)	Gather information about apprenticeship of observation, beliefs about influences on classroom motivation	Consultation with Chilean teacher educators Piloted with 4 PSTs	17 PSTs	Immediately after the final practicum	55–60 min.

Table 2
Participants' profiles (case studies).

	Pablo	Michelle
Gender	Male	Female
Age at time of research	23	29
Year of final practicum	2017	2016
School profile	Publically financed secondary school with focus on vocational education (Years 9–12)	Semi-private integrated primary and secondary school (Years 1–12)
Class profile	Year 10: 36 students	Year 8: 40 students
narrated experience		
Additional teaching experience	--	Substitute teacher at the same school
Action research topic (final practicum)	'Promoting intrinsic motivation among learners to diminish their need for an external reward'	'How can the implementation of an oral-communication-skills approach affect EFL teenage learners' beliefs and performance?'

4.1. A motivation-controlling school culture

School cultures are 'complex webs of stories, traditions, and rituals budding over time as teachers, students, parents, and administrators work together and deal with crises and accomplishments' (Deal & Peterson, 2016, p. 9). This section focuses on one characteristic of an apparently widespread school culture within Chile: a controlling motivational style that extensively uses grades and extrinsic rewards to engage students in learning activities (Reeve, 2009), and of which evidence was found in the questionnaire and interview data. Under this umbrella term, four further categories emerged: apprenticeship of observation, descriptions, explanations, and alternative school cultures.

4.1.1. Apprenticeship of observation

This category comprises all data related to the PSTs' experiences as school students before entering teacher education. According to the questionnaire (see Tables 3 and 4), negatively controlling strategies, e.g. contact with parents or harsh punishment for unfinished classwork, were uncommon. Likewise, certain types of extrinsic incentives, such as stickers, are not typical of the local culture. The most commonly used extrinsic reward, used to motivate students to

complete ungraded activities, is to award decimals to be added to grades on future tests.³

Following SDT's categories, the PSTs' experience was marked by their teachers' attention to their need for relatedness: the teachers' enthusiasm, a pleasant classroom atmosphere, and a personal relationship with the teacher all scored high in the questionnaires. With regards to the development of a sense of competence, the relative frequency of the items 'high teacher expectations', 'high grades to stimulate learner satisfaction', and 'easy learning tasks' gives a fairly inconsistent portrayal, possibly leading to not very effective motivational practices. Comparatively absent from the PSTs' experience are autonomy-supportive motivating strategies, such as student-activating learning methods, learner strategy instruction, and freedom to choose tasks or topics. 'Appeals to [students'] sense of responsibility', another highly scored strategy, is closely related to introjected regulation, one of the more controlling types of extrinsic motivation (Vallerand & Ratelle, 2002, p. 42). Aspects more closely connected to the intrinsic value of learning English, such as real contact with the English-speaking world, were rare in the PSTs' apprenticeship of observation.

In the interviews, several PSTs expanded upon the negative effects of a system that gives excessive importance to grades and points and that punishes students for failing to obey orders. They emphasised that learning outcomes were poor because of this way of approaching student compliance. Some also stated that the use of 'points for the test' had become more common since they had been students, leading to inflated grades that did not reflect learning achievement (see Table 5).

4.1.2. Descriptions and explanations

In these two related categories, excerpts from interviews either *describe* the school culture in brief metaphors or with adjectives, or give *explanations* for the presence of motivation-controlling practices. In one group interview, the experience of learning to teach in school environments in which relatively more importance was given to 'points' than to meaningful learning turned into a central theme; the word 'decimal' appeared a total of 53 times in the interview. The three participants, all placed in different schools, were surprised to re-

³ In Chile's school system, learning outcomes are evaluated with a point-grade system going from 1,0 (lowest) to 7,0 (highest grade). Teachers during lessons frequently offer 'decimals' or 'points' to students that they can add to their next test grade, e.g. a student who might earn a failing grade of 3,8 in a test can add three extra decimals (earned for good answers in class or a correct sentence written in her notebook) to the test grade in order to pass with a 4,1 (4,0 being the usual minimum benchmark to pass a course).

Table 5
School culture.

Category	Sub-categories or examples	Definition	Quotes
Apprenticeship of observation	Importance given to grades Punishing system Lack of meaningful learning	PSTs' accounts of their experiences at school students, related to their teachers' motivational style	'(...) I did not learn English with her because, for instance, she used a system with extra points. So I always ended up among the top students and that was my contribution to the English class. I mean, I worked 10 min and the rest of the class I would do nothing. I could not move, otherwise I would be discounted a point. So I could not learn and I spent three years this way.' (IICristina49) ^a 'It's a war.' (GIAndrea95) 'It's the easy way out.' (GIRenata75) 'It's a problem. It's a necessary evil.' (GIXimena79) 'That's weird, it's like money.' (GIXimena42) '(...) but I feel that the punishment increasingly undermines the student's interest and transforms him [sic] into a robot that obeys orders and that is detrimental for anything.' (IIPaul175)
Descriptions	Metaphors Adjectives Criticism	Descriptions and metaphors used by PSTs when referring to a motivation-controlling school culture	'They are very conditioned.' (GIAndrea67) 'I feel that motivation is only related to one product: to the grades. If I don't tell the kids that the activity includes extra points or that it is going to be graded, they won't work, so I feel that their motivation is not about learning!' (GIPatricia11) 'So, it sometimes happens that students won't work in class or do any activities unless they are offered decimals for the test ...' (GIXimena29) 'A teacher that has been used to working with decimals for the tests for years won't want to quit that system, the kids are already used to it.' (GIRenata75)
Explanations of school cultures	Conditioning Students' refusal to work Teachers' tiredness	Reasons given by PSTs to explain the widespread use of extrinsic rewards	

Table 5 (Continued)

Category	Sub-categories or examples	Definition	Quotes
Alternative school cultures	Students engaging out of interest Wish to change existing school culture	Examples of school cultures in which a different motivational style is favoured or imagined	'[English] is a useful tool for their future and they know they have to learn English, but maybe they aren't doing it for fun.' (GIXimena29) 'The thing is that we have been studying for four years or more and we try to reach them in a different way, like motivating the students, getting to know them, designing entertaining, engaging activities, and it should be that that motivates the student.' (GIAndrea80)

^a Coding labels refer to individual interviews (II) or group interviews (GI), pseudonyms, and number of utterance in the interview transcripts.

Table 6
Socialisation into school cultures.

Categories	Sub-categories or Examples	Definition	Quote
Senior teachers' advice or directives	Established system Expected behaviour Recommendation	PSTs' accounts of mentor teachers' actions or discourse that aim at socialising a PST into using a controlling motivating style	'(...) For instance, beginners have to earn the extra points during lessons, intermediate and advanced groups lose their extra points if they misbehave.' (GIAndrea41) '(...) somehow, the teachers expect it from us, that we use it as a tool to motivate the students.' (GIAndrea43) '(...) there was this lesson where they behaved very badly and the mentor teacher said to me: "punish them, and threaten them with the decimals."' (GIANoly157) 'So they all ask me all the time: "Do we get decimals for this? Do we get decimals for this?"' (GIAndrea39) 'We had to do this activity and I was telling them the objectives for it –imagine I was just sharing the objectives—and they started "Miss, are you going to do anything with decimals?" and I said "No" and everything went like silent(...)' (GIXimena94)
Students' attempts to socialise PSTs into a controlling school culture	Students' requests for rewards Students' bargaining for rewards Students' manifestation of exclusive interest in grades	PSTs' accounts of students' actions or discourses that aim at socializing a PST into using a controlling motivating style	'They were not paying much attention, they weren't doing the activities, like saying, "Oh, there are no decimals" so they would do something else. So I had to go back to the system again, but with fewer points because, for instance, my mentor teacher would give them five decimals or many.' (GIRenata50)
PSTs' resignation	'Have to' formulations	PSTs' accounts of their adopting a controlling motivating style against their better knowledge and will	

Table 7
PSTs' agentic responses.

Categories	Sub-categories or examples	Definition	Quote
Making sense of extrinsic rewards through reflection	Rewards for effort Help for low-achieving students Process orientation	PSTs' reflections on the benefits of extrinsic rewards and conditions that could justify their use	'For instance, I've seen students in a lower set doing stuff and said, maybe they were not able to do this a month ago. So, why not give them a little reward? (...) There is this kid in my year 11 class who is struggling and I did not notice until the first test. He participates in all the lessons, he works and works, but he got a really bad grade and I felt really bad about giving him this grade because that does not reflect what he does in class.' (GIAndrea90)
Attempts to minimise harmful effects of rewards	Attempts to reduce frequency of reward use Attempts to use rewards without previous announcement	PSTs' accounts of their actions aiming at minimising the most harmful characteristics of extrinsic rewards	'(...) I tried to stop giving decimals (...)' (GIRenata48) '(...) and I've been slowly trying to quit it and they are not realising perhaps because they are picking up a work rhythm to do the things, but it is a big issue there.' (GIAndrea41)

Table 3
Most commonly observed motivational strategies (questionnaire data).

Motivational Strategy	Total Score
Teachers' enthusiasm about English	65
Appeals to your responsibility as a student	65
Positive appraisal of learner effort	64
High grades to stimulate learner satisfaction	63
Pleasant classroom atmosphere	61
Easy learning activities	58
High teacher expectations	58
'Points' for the next test	57
Personal relationship with the teacher	57
A fair, transparent assessment system	57

Table 4
Least commonly observed motivational strategies (questionnaire data).

Motivational Strategy	Total Score
Harsh punishment for failure to complete work	14
Contact with parents to congratulate them and you on hard work	15
Real contact with native English speakers	16
Use of stickers, sweets, ...	24
Real contact with the outside world through English	26
Freedom to choose tasks, presentation topics, etc.	27
Contact with parents for failure to complete work	27
Learner strategy instruction	28
Competitions as class activities	29
Student-activating learning methods	31

alise that this was such a common problem ('We didn't know this was happening', GIAndrea72), and described it with rich metaphors ranging from the semantic fields of warfare to economic exchange value. In the paired interviews, two (other) teachers shared their views on the pernicious consequences of extrinsic conditioning on the healthy functioning of individuals and of society in general, affecting negatively people's willingness to work without the promise of a reward. Notwithstanding their criticism of a controlling school culture, PSTs

gave explanations of the widespread use of extrinsic incentives; whilst displaying their exasperation with 'conditioned' students who refused to engage in class activities unless offered a 'point for the test', they also expressed their empathy with exhausted senior teachers, who had lost the energy to look for alternative strategies (see Table 5).

4.1.3. Alternative school cultures

Not all the interview data centred on the issue of motivation-controlling school cultures. In the category 'alternative school cultures' we only included those excerpts that appeared in the immediate discussion context of motivation control, and where PSTs referred to possible (imagined or real) alternatives. Several PSTs' accounts evidenced their hopes to help students see proficiency in English as a useful competence for their future, and thus engage them in more significant ways of learning (see Table 5). Also, some interview extracts showed that not all mentor teachers agreed with rewarding students' efforts with points (e.g. GIRomina51), demonstrating that, although it is a common practice, alternative visions can be found among the more experienced teachers.

4.2. Socialisation into school cultures

The second category refers to different socialising agents that play a role in making PSTs part of motivation-controlling school cultures. Three different levels were identified: other teachers, students, and the PSTs themselves (see Table 6). In some schools, the use of 'points for the test' as a motivational strategy appears to be an elaborate system established by teachers over years, sometimes in negotiation with students. It includes the possibility of rewarding effort (by giving points) and of punishing non-compliance (by deducting already earned points). Thus, for some PSTs it was a matter of getting to know the system and applying it in order to fit into the established routines. They did not want to be seen as rejecting practices shared by their colleagues, even if they did not agree with their behaviourist principles. In some cases, senior teachers gave explicit directives to PSTs, who felt more or less compelled to follow orders, depending on their relationship with the mentor teachers. Students, too, played a major role in attempting to socialise PSTs into a controlling school culture. Direct quotes of students asking for rewards were found in several PSTs' accounts, often accompanied by expressions of dismay, highlighting circumstances such as: students had done no classwork at all; they asked for incentives before the first activity of the lesson had been introduced; or they were, in the PSTs' view, too old to ask for stamps (e.g. GIAndrea63). Eventually, some PSTs seemed to resign themselves, against their will and better judgment, to playing their assigned role within this system of controlling motivational practices. Here, their accounts are marked by 'have to' expressions, highlighting their sense of feeling forced and their surrender when pressures from students and mentor teachers had built up too high for them to feel able to implement viable alternatives.

4.3. PSTs' agentic responses

However, several PSTs resisted the temptation to give in too easily, or without reflection. Under the broad category 'agentic responses', excerpts were coded that referred to moments when PSTs used their personal agency to respond to the widespread use of controlling strategies to motivate students (see Table 7). This included reflections aiming to identify positive ways of employing extrinsic rewards, such as making low-achieving students feel better by rewarding their effort, rather than grading only the final product. The

second strategy was to try to reduce the most harmful effects of extrinsic incentives by stopping the practice of announcing them in advance, or by reducing their frequency, turning them into performance-contingent rewards, potentially enhancing their positive impact on learners' sense of competence (Houlihan et al., 2002). Finally, several PSTs narrated attempts at implementing motivational strategies that could be classified according to SDT's recommendations to cater for students' needs for relatedness (such as making an effort to get to know students as 'people': GINicole94) and autonomy (such as allowing students to choose the topic for a written assignment: GITomás103).

In the next section we share the first-person narratives of two teachers who had taken over classes of students who had been conditioned by a motivation-controlling teaching style. Their accounts highlight the difficulties they faced and how they navigated those difficulties. Pablo designed an exploratory action research project based on the SDT framework during his final practicum. Michelle, in her first teaching position as a substitute teacher, continued using extrinsic incentives but applied several changes in the classroom structure that allowed her to gradually phase them out.

4.3.1. Narrative 1: Pablo

Setting: Before my practicum experiences some teachers advised me to use 'any means possible' to make students interested in the class and maintain discipline. This evolved into a strong suggestion from my mentor, and other teachers, in my final practicum. As soon as I started observing the large groups of teenage students and taking control of those lessons I realised that students were very used to getting 'something' in return for their attention and participation in class, such as decimals for upcoming evaluations, or positive comments in the class book. Otherwise, their commitment to learning was reduced to a minimum. I soon realised this was not an isolated case in my class; it was rooted within the school's culture. Apparently, all teachers relied on the decimals to make students participate.

Complication: As I was not used to offering this type of reward in exchange for cooperation, I struggled to control the classroom. I tried using games and competition-like activities but although students showed some interest, I would still get these questions every lesson: 'Is this graded? Do we get extra points? Do we get positive comments in the class book for finishing this?' It was very frustrating. I could clearly see that they were not engaged and enjoying the class –and neither was I. It was leading to misbehaviour and what I perceived as a toxic classroom environment for everyone. Once again, my mentor teacher recommended using the decimals. Students were not responding. My authority was threatened.

Resolution: As part of my university coursework, I was to prepare a research project that included the design and implementation of an action plan in the classroom. During one of the research workshops I presented the problematic situation described above and my university tutor introduced me to SDT (Deci & Ryan, 1985), which allowed me to understand the reasons behind my lack of success in the classroom. I continued reading on the negative effects of extrinsic rewards on students' natural, intrinsic motivation towards the class, resulting in reward-dependant performance (e.g. Willingham, 2008). I had already been reluctant to use extrinsic incentives because it defied the teaching principles I had learnt at university, but after getting involved with this theory I was fully convinced that I should opt for a different, more autonomy-focused path.

I designed an action plan with a strong focus on developing tasks that could potentially cater for the students' three basic psychological needs at the core of SDT. To support *autonomy*, I gave the students more responsibility in the decisions involving a task, for instance,

freedom to choose partners to work with. For the creation of a poster on sports –the topic of the unit–they had the freedom to decide on the subtopics, poster design, and group roles. In order to develop a sense of *relatedness*, every activity of my action plan included pair or group work, making students collaborate to reach a goal. Finally, I aimed to tap into their sense of *competence* as 'digital natives' by including technology-based activities, such as a dialogue recording in which students were allowed to use their smartphones, or work on an online platform (Padlet) in the computer lab to gather and share information on their favourite sports.

I collected feedback data from students through short questionnaires. Here, some students stated that pair and group work was more beneficial for them than the usual individual work 'because if I don't know something, another classmate may know and we can help each other'. Regarding technology, most students stated they felt comfortable using the mentioned devices. However, with my research supervisor I later had a discussion whether the use of technology was successful mostly because students could *relate* to it or because it was an area in which they already felt *competent*.

Reflection: During the implementation of the action plan I observed a more cooperative classroom environment where students felt in control of their outcomes, capable of using the tools provided and therefore more committed to completing their assignments. After a few weeks I noticed a change in the students' attitudes regarding extrinsic rewards, with a notable decrease in their requests for extra points or positive notes. I was also able to observe that the students seemed to have found the 'reward' they were looking for in the possibility of using technology; the use of smartphones was usually forbidden during class time. It therefore seemed to work as a natural boost for their motivation towards the activities and eventually towards the class. The mentor teacher also identified positive changes in the students' attitude in upcoming lessons, highlighting this during feedback sessions and replicating some of the activities from the action plan –especially the technology-related ones– in other classes.

This experience made me more conscious of the intricacies of facing a 'conditioned' school environment and gave me some background on how to attempt to counter its harmful long-term effects. I consider this extremely beneficial for my teaching career, especially if I want to become an autonomy-supportive teacher. I am now looking forward to someday taking part in an autonomy-centred curriculum at a Chilean school, working collaboratively with teachers from other subjects. The students in my practicum were able to experience autonomy on a small scale (Niemi & Ryan, 2009), and I would expect an even more positive learning environment if the whole school culture changed in this aspect.

4.3.2. Narrative 2: Michelle

Setting: As a school student, I experienced some teachers giving decimals for upcoming tests as an incentive for struggling students to participate. Then, in my final practicum, I noticed that this strategy was used by my mentor teacher and had become a systematic practice when asking students to work; decimals were given for completing the main task in every lesson. So, were the students motivated by the task itself or by the decimals? When students were not offered incentives, they worked slowly, or went off-task. I was worried because most training I had received about motivation for learning differed greatly from this classroom situation in which students were not making much progress in English, or showed no interest in learning the language.

Complication: After finishing my practicum I continued working at the same school, teaching the same students, a heterogeneous class of 40 thirteen year-olds. Without my mentor's supervision, I became

even more aware of the challenges I was facing: students unwilling to participate or even to pay attention to the lesson without being offered extra decimals; behavioural issues due to their lack of motivation, exacerbated by the inherent difficulties of the subject; and their basic level of English. I began to feel frustrated about my unsuccessful attempts to engage my students in learning.

Resolution: With all this in mind, I first figured that a large class should be more manageable in groups. So, the seating arrangement changed. I also thought that since students were used to incentives, I should continue using them but rather than giving them to individual students I could reward participation in group tasks. The twist was to collect points for a monthly goal instead of giving decimals for the immediately upcoming test. In order to do this, I used Class Dojo, an educational application turning every student into a 'monster avatar' part of a group. This framed the learning community differently and visibly engaged the students. The application helped visualise the seating arrangement and manage students' behaviour. Positive behaviour (speaking in English, being quiet during instructions, being on task) was rewarded with points displayed instantaneously on a screen; for negative behaviour, they would lose points. At the end of each month they could trade those points for different rewards, e.g. positive comments in the class book, a diploma for best group, and -if necessary- extra decimals for the unit test. Ergo, I observed that students quickly engaged with the learning process; the classroom became dynamic. Sometimes, I purposely did not use the Dojo app and was surprised to see that students continued working without asking for rewards. By the end of the unit some students could even dismiss extra decimals because they had studied throughout all the lessons and achieved the highest scores. Low-achieving students made good use of the decimals, which motivated the class to keep working because they all reaped benefits.

Reflection: Only later did I start reflecting on the effects of this 'new system' in terms of SDT and the students' competence, relatedness, and autonomy needs (Ryan & Deci, 2000). I realised I had, maybe intuitively, catered for my students' need for competence by making explicit the fact that, under my guidance, they could set and achieve specific, realistic goals for themselves. I fostered their sense of relatedness by making them part of a group with its own identity, in which students regulated themselves and supported each other, thus contributing to a more positive classroom environment. Students could begin to use whatever English they knew while being allowed to express opinions in their native language, promoting their participation and connection with the class. While writing this narrative, I reflected on the possibility that students did not develop autonomy as they were still looking for extrinsic stimuli. However, I had decided not to withdraw entirely what motivated them to work, but to make a smooth transition towards the subject-specific goal of speaking English, rechannelling their way of working into a new path leading to learning. As the students had to self-regulate and regulate their peers in order to succeed, they had to participate and decide what they wanted to achieve and work towards that goal. This corresponds to the understanding of autonomy as 'not being independent from others' but as 'a sense of willingness and choice when acting' (Deci & Vansteenkiste, 2004, p.25). I also realised that with the new strategy I had followed Deci and Vansteenkiste's (2004) recommendations for a motivational teaching practice by 'setting a pleasant classroom atmosphere', 'increasing the learners' expectancy of success' and 'learners' goal-orientedness'. I could 'maintain and protect their motivation' by promoting collaboration in groups and presenting tasks as challenges. The learners' satisfaction was also taken into account when they could see their progress. Therefore, the rewards were

given in a different and more motivating manner, focusing on their actual performance in English (Dörnyei, 2001, p. 29).

Eventually, I observed positive results: I was able to redirect their habit with a new purpose, giving students structure together with the opportunity to develop their autonomy (Jang, Reeve, & Deci, 2010). However, not all my classes responded as positively. I believe students who have been motivated extrinsically for too long might need a more holistic approach involving colleagues from other subjects, too, in order to develop more autonomy.

5. Discussion

Responding to the questions posed in the introduction, the findings show, first, that according to the novice teachers' mostly negative descriptions of motivation-controlling school cultures, they seem unwilling to endorse extrinsic incentives as a motivational strategy. Drawing on their experiences with 'real' secondary students, their explanations corroborate SDT-related laboratory studies on the 'undermining effect' of extrinsic rewards (Deci et al., 1999). Their disappointment with students who are not concerned with *learning*, but only with the 'numbers' (Cortez Quevedo, Fuentes Quelin, Villablanca Ortiz, & Guzmán, 2013), is evident. However, their reactions are fairly ambiguous and show varying levels of reflectivity, e.g. when referring to them as a 'necessary evil'. The clash between their own experiences as apprentices, contents learned at university, and pressures experienced during professional socialisation suggest that contradictory ways of dealing with learner motivation constitute an important source of conflict for novice teachers, which is in line with contradictions found in general teacher education research (e.g. Barahona, 2016; Pillen et al., 2013). 'Pressures from within' (i.e. positive beliefs about a controlling motivational style) seem to play a smaller role than 'pressures from above' (e.g. being held responsible for student behaviours) and 'pressures from below' (students' passivity), as identified by Reeve (2009). In fact, as socialising agents, students even seem to be *actively* negotiating extrinsic rewards in exchange for classwork. Thus, novice teachers may feel forced to adopt strategies that in their own knowledge make sustained learning engagement difficult, causing feelings of frustration in this beginning stage of their career.

Second, the two case studies support the use of reflective inquiry in teacher education as a means to transform practices, fostering early-career teacher autonomy and agency (Vieira & Moreira, 2008). The experienced contradictions first caused frustration, i.e. 'emotional dissonance', but with reflective tools at hand, acted as 'catalysts' (Kubanyiova, 2012) for professional growth. In face of the various pressures described above, Pablo's experience of exploratory action research reflects Hoy and Woolfolk's (1990) observation that 'it appears that some student teachers are able to resist custodial socialization pressures if their teacher preparation programs are inquiry-oriented' (p. 285). Illustrating the following phase as a graduated teacher, Michelle's narrative evidences her capacity to analyse the teaching context and actively look for solutions, visualising and implementing a team-based classroom environment she had neither experienced nor observed before. The findings also highlight SDT's potential as a tool for reflection and action, guiding teachers' analysis of their classrooms: How could they meet students' relatedness, competence and autonomy needs and identify 'spaces for manoeuvre' (Jiménez Raya et al., 2007) for fostering more autonomous motivation? This active engagement with theory seems essential for appropriating SDT as a conceptual tool (Grossman et al., 1999). Since autonomy support is unusual in the schools involved in this study and rarely experienced by teachers as apprentices, the 'autonomy' aspect

of SDT might be the most difficult to tackle, as Michelle's narrative illustrates. Reflecting *after* implementing the changes, she readily recognised how she had met her students' relatedness and competence needs, but struggled to discover autonomy in her points-based system. Her experience reflects an *evolving* Pedagogy for Autonomy (Jiménez Raya et al., 2007), where her first steps on the continuum towards autonomy were supported by her attention to the 'other' two SDT needs, leading to a classroom structure where extrinsic rewards began to lose their significance. Both cases illustrate that SDT can be an empowering reflective tool, especially in contexts where autonomy might be the 'last' need that teachers feel capable of addressing, albeit one which they nevertheless understand to be important.

Finally, as the move towards autonomy-supportive motivational practices depends on teachers' *perceptions* of facilitating or hindering conditions, 'perhaps more than on the conditions themselves' (Jiménez Raya et al., 2007, p. 22), the teachers' participation in authoring this article has been fundamental in laying the groundwork for future teacher development in a periphery context (Canagarajah, 1999; Johnson & Golombek, 2011). Rather than offering 'top-down' courses on approaches to motivational autonomy support originating in different pedagogical realities, we now feel better prepared to respond to the challenges posed by local school cultures, dominant teacher practices, and expectations based on teachers' and learners' past experiences, and to offer palpable and convincing examples and guidelines for other teachers. Sharing the novice teachers' narratives might help other teachers develop situated visions of 'future teacher selves' that could counter possible 'nice-but-not-for-me' or 'nice-but-too-scary' resistance reactions in teacher development interventions (Kubanyiova, 2012).

As a result of this research collaboration, we co-constructed the following five-step framework aiming to help teachers transition from a controlling approach towards autonomy support:

- 1) **Creating awareness:** SDT research suggests a link between the excessive use of extrinsic rewards and students' loss of motivation. Given that the use of 'decimals for the test' and other controlling elements are so normalised in the Chilean school system, many teachers –unaware of the 'undermining effect'– may not associate students' lacking motivation with the prevalence of these incentives in their classroom practices. Since teachers tend to adhere to a controlling style because of the socialising pressures described above, professional development must draw attention to the benefits of autonomy-supportive teaching both for teachers and students, to help teachers modify their beliefs about the necessity of exerting control (Reeve, 2009). Likewise, students should be explicitly taught about SDT and know why rewards are detrimental to their autonomy, so they can become part of the change instead of resisting a new 'no rewards' culture that might at first seem like punishment for them.
- 2) **Reflection:** SDT offers a straightforward framework for beginning to reflect on the causes of the presence or absence of learner motivation in a school system marked by extrinsic control. As illustrated in the narratives, teachers could be engaged into answering these questions: How much do my teaching practices cater for the students' needs of relatedness, competence and autonomy? What could I change to foster their sense of belonging, progress, and choice? When using SDT for teacher education in Israel, Assor et al. (2009) found that teachers identified knowledge about the psychological needs and the motivation continuum as useful tools to understand their students better.
- 3) **Practice:** With a paradigm shift in teacher education leading to more emphasis being placed on the regular practice of tested strategies (e.g. Ball, Sleep, Boerst, & Bass, 2009), autonomy-sup-

portive strategies should be explicitly integrated into pre- and in-service education. This might involve, for example, rehearsing questions that might arouse curiosity, or presenting potentially uninteresting tasks with explanatory rationales (referring to its benefits for reaching a personal goal, rather than invoking an upcoming test to 'engage' students; Reeve, 2009).

- 4) **Planning the transition:** As Michelle's narrative vividly portrays, novice teachers who 'inherit' reward-conditioned classes might not feel prepared to immediately abandon extrinsic motivators, as they need time to establish themselves as an accepted leader in the classroom while developing more confidence in general teaching skills. With SDT in mind, we recommend that teachers facing this situation analyse up to which point a rewards-point system (such as the Dojo application) helps them to bring structure into their classroom, and how they could reduce its more harmful controlling aspects. For example, rewards for team effort might support the relatedness need more than incentives for individual effort; rewards given for *competent performance* tend to undermine intrinsic motivation less than those for *doing a task* (Houlfort et al., 2002). Rewards could include autonomy and relatedness principles, such as letting students choose learning materials, lead games, or prepare a class party. Any systematic use of rewards should support teachers as they implement autonomy-supportive strategies (applying surveys to get to know students' interests, teaching students to set and work towards goals, giving informational feedback on progress, etc.), with the ultimate aim of completely phasing out the reward system. Michelle, encouraged to use SDT to reflect on her practices, was 'surprised' to observe that her students kept working when she stopped using the application.
- 5) **Seeking whole-school collaboration:** Just as both Pablo and Michelle became aware of the limitations of autonomy and motivation support if applied only by one teacher within a single school subject, we believe these interventions should ideally be based on collaborative teacher development across disciplines that, likewise, considers teachers' relatedness, competence, and autonomy needs aiming at effective internalisation of SDT (Assor et al., 2009).

6. Conclusion

The present study has several limitations. Of all educational agents, the study collected only the novice teachers' perspective on motivation-controlling school cultures, although Pablo's action research report gives us some access to students' responses. Also, without complementary observation data, the teachers' self-report data provide limited opportunities to explore how their reflections on motivation translate into classroom practices. Further research should address these limitations. A longitudinal research partnership with novice teachers could involve classroom research and investigate the transition towards autonomy support over longer periods of time. Large-scale action research across whole schools, involving an application of the five-step framework presented above, could examine its impact from multiple perspectives.

To conclude, cross-cultural studies have revealed that motivation control in school is actually a world-wide pedagogical issue (Reeve & Assor, 2011), exacerbated by recent pressures for educational accountability (Deci & Ryan, 2016). Paralleling Paulo Freire's thinking about pedagogy for autonomy as a liberating, growth-fostering force, necessary for the development of healthy and just societies in Latin America (Freire, 1998), SDT is among those conceptual frameworks that call our attention back to the deeper, humanising intention of education. The perspective of novice teachers central to this paper has

added depth and complexity to previous research on motivational strategies, and supports the plea for explicitly incorporating SDT and autonomy support into PST education, in response to researchers who question its value (Valenzuela et al., 2015). We hope that by applying strategic tools, reflecting with the help of concepts, and sharing experiences, novice teachers will be able to make SDT their own, implement gradual changes, gain autonomy, and, furthermore, support their students' autonomy.

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Appendix D. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.tate.2019.04.018>.

Appendix A. Questionnaire extract

Learning through observation.

How frequently did you observe your own SCHOOL TEACHERS use the following potentially(?) motivating strategies (regardless of their success or appropriateness)?

	0-never	1-rarely	2-some-times	3-of-ten	4-very often
1. Use of stickers, sweets, ...					
2. Low grades to stimulate effort					
3. High grades to stimulate learner satisfaction					
4. A fair, transparent assessment system					
5. Useful feedback on your work and progress					
6. Freedom to choose tasks, presentation topics, etc.					
7. Positive group experiences					
8. Interesting topics					
9. Interesting tasks					
10. Student-activating learning methods					
11. Learner strategy instruction					
12. A strong (inter)cultural component within English language learning					
13. Teachers' enthusiasm about English					
14. Teachers' enthusiasm about pedagogy					
15. 'Points' for the next test					
16. High teacher expectations					
17. Personal relationship with the teacher					
18. Pleasant classroom atmosphere					
19. Well-structured small-group work					
20. A democratic leader-					

21. Appeals to your responsibility as a student
22. Real contact with native English speakers
23. Real contact with the outside world through English
24. Reminders about the importance of English on the job market
25. Clear learning goals
26. Easy learning activities
27. Challenging learning activities
28. Unexpected, fun activities
29. Clear learning progression
30. Clear focus on productive skills
31. Appeal to students' self-motivating capacity
32. Positive appraisal of learner effort
33. Cooperative learning tasks
34. Memorable events, such as 'English day', presentation of a play or a song ...
35. Public display of students' work and skills
36. Competitions as class activities
37. Harsh punishment for failure to complete work
38. Contact with parents for failure to complete work
39. Contact with parents to congratulate them and you on hard work
40. A clear lesson structure
41. Effective classroom management
42. Opportunities for self-expression

Appendix B. Group interview protocol

1. What have your experiences been so far in relation to learner motivation?
2. What/who at school has helped you with this issue?
3. What ideas/strategies learned at university have helped you?
4. Have there been any obstacles at school or at university that you feel have come in the way with motivating your students better, e.g. coursework requirements, school guidelines, mentor teacher ... ?
5. Where else do you get ideas from?
6. In relation to limitations or constraints described earlier, where do you see 'spaces for manoeuvre' (Jiménez Raya et al., 2007)?
7. Is there any particular support you wish to acquire through the participation in this project?

Appendix C. Individual interview protocol (extract)

1. Since your participation in the questionnaire and group interview, have you had any new thoughts/experiences in relation to learner motivation?
2. In the questionnaire, you described learner motivation as a (great)⁴ challenge. At what stage of your pre-service education did you become aware of this challenge? How?/Why? Did this influence the way in which you faced certain contents that were taught at university or 'critical moments' in your teaching practicum?
3. When you were a school student yourself, your teachers - according to your questionnaire responses - seem to have used (many/

⁴ Depending on questionnaire and group interview responses, questions 2 and 3 were adapted individually.

few etc.) motivational strategies, and in the group interview you mentioned (...) as a possible influence on learner motivation. How has this experience influenced your own search for motivational strategies?

4. As a teacher, how do you 'detect' learner motivation?
5. Where do you think learner motivation comes from?
6. In general terms, what do you think has a positive/negative effect on motivation?

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