'It may also be our own fault to think so, to limit them before even trying': Assuming Learner Limitations during Materials Design in English Language Teacher Education

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INTRODUCTION

Notwithstanding the burgeoning literature on language teacher education and on language teaching materials since the 1990s, these two fields have remained disconnected from each other from a research perspective. This paucity of research bridging both fields is interesting given the recognition by teacher education researchers within the sociocultural tradition that tools – in this case language teaching materials – have an important role in human activity. As Ellis, Edwards, and Smagorinsky (2010) argue, the development of the human mind can be studied by analysing tools and their mediation of actions. Therefore, studying teaching materials needs not only to illuminate what we know about these resources in themselves, but also to shed light on how teachers come to know what they know about materials.

Although in many contexts learning to design English language materials has made only slow progress in terms of its presence in teacher education programmes (Graves & Garton 2019), in Chile, the context for this study, selecting, adapting and, importantly for this paper, designing materials is part of the official standards for teacher education courses preparing preservice teachers (henceforth PSTs) for working in the public-school sector (Mineduc, 2014; see Mineduc, 2021 for a recent update of these standards highlighting the importance of materials development). However, language teaching materials are still an elusive component in most teacher education programmes despite these official recommendations, the well-established position of research into teaching materials, and the fact that materials are central to language teachers' classroom practice (see Richards, 2014).

The scarcity of such components in language teacher education means that we know little about how student-teachers relate to the tools of their future profession. Despite decades of research into teacher education and into teaching materials, there is still a compelling need to understand not only what teachers but also what student-teachers think, know and believe about materials. One aspect of bridging this gap is exploring how student-teachers come to know what they know about designing materials during teacher education. Relying on the sociocultural framework of Activity Theory, this article reports part of a larger study investigating how a group of preservice teachers of English in Chile learnt to design teaching materials, looking at the pedagogical principles mediating their design and the tensions emerging during this process.

BACKGROUND

Teacher Beliefs, Learners and Materials

The study of teacher beliefs in English language teacher education can be attributed to the emergence of scholarship into teacher cognitions (what teachers know, believe, and think; Borg, 2003, p. 81), brought about by the sociocultural turn in teacher education and applied linguistics (see Gray & Block, 2012; Johnson, 2006, 2009). Developed through personal experience, schooling, and formal knowledge (Richardson, 1996), teacher beliefs have been defined as "eclectic aggregations of cause-effect propositions from many sources, rules of thumb, generalizations drawn from personal experience, beliefs, values, biases and prejudices" (Clark, 1988, p. 5). While the scope of research into teachers' beliefs is exceptionally wide (perhaps unsurprisingly given this definition; see also Pettit, 2011), scholars agree that beliefs are extremely influential in teachers' daily decision-making (e.g. Basturkmen, 2012; Borg, 2003; Borg & Al-Busaidi, 2012; Richardson, 1996, 2003), and that

the extent to which teachers and student-teachers act in relation to their beliefs is mediated by multiple sociocultural factors (Phipps & Borg, 2009).

While studies on teacher beliefs reflect this broad scope, here we focus on teachers' beliefs about their learners and how these beliefs relate to materials. More particularly, we focus on how problematic views of the learners, such as prejudices or disparagements, emerge in teachers' language teaching practice and use of material. For example, Sharkey and Layzer (2000) explored the attitudes, beliefs and practices of US mainstream language teachers about their English language learners and highlighted a phenomenon they call, following Hatch 1992, "the benevolent conspiracy", i.e., teachers attended to the learners' affective needs at the expense of their cognitive ones, focusing, for example, on their students' completion of a worksheet rather than on whether it was done correctly or not. Rubie-Davies, Hattie, and Hamilton (2006), in New Zealand, suggested that ethnic and socioeconomic biases operate behind teachers' lowering of the cognitive demands they present to language learners and the types of communicative patterns they facilitate in the classroom.

The materials development process, which for Tomlinson (2012) includes their selection, adaptation, and use, is likewise heavily influenced by individuals' rationales about teaching and learning (Freeman, 2014). Studies examining the adaptation of language coursebooks in various contexts show that the rationale underpinning teachers' textbook adaptation is largely based on considerations about the materials' difficulty. De Araujo's (2012) study of three maths teachers' use of ESL materials in the US revealed that adapting the content and instructional formats of tasks (e.g. group work or time allowed) frequently resulted in lowering the materials' cognitive demand. Santos (2013) showed that teachers using tasks aimed at developing critical thinking in Brazil reoriented them towards producing descriptive language instead and ignored the problematisation of essentialist content, even

when the learners had identified issues in the material that could be used to stimulate their criticality. In Argentina, López-Barrios and Villanueva de Debat (2014) found out that a group of teachers judged textbook tasks as too difficult, sometimes replacing speaking and writing with reading, listening and language activities. Finally, Humphries (2014), studying the adoption of new textbooks in a Japanese rural technical college, identified negative assumptions about the students as one of the factors inhibiting teachers from using these textbooks.

What these studies show is that teachers' beliefs about learners are central to how they use materials. However, we know little about preservice teachers' beliefs about their learners in relation to materials development, and how these beliefs come to be. As mentioned above, in Chile, where teachers are expected to select, adapt, and design materials (Mineduc, 2014), this lack of research is particularly problematic considering the tendency to provide little instruction in these processes (Carabantes, 2019).

Activity Theory to Study Learning to Design Materials

The theoretical lens we employed to study the design of teaching materials is Activity Theory, which emanates from the work of Vygotsky (1978, 1997) and highlights the collective nature of human actions. Activity Theory focuses on the activity system, broadly defined as an object-oriented, collective and culturally mediated human activity (Engeström & Miettinen, 1999). Because activity systems do not occur in a vacuum, they usually overlap and coexist with others (Grossman, Smagorinsky, & Valencia, 1999).

Figure 1 below illustrates the components of an activity system. At the top of the triangle are *tools*, which are the social others and/or physical and/or symbolic artefacts used by the subjects to develop an activity. The *subjects* of an activity system are the individuals participating in the activity. An *object* is the motive of the activity; it determines what actions

are (or are not) carried out in an activity. The *rules* are the established or tacit procedures affecting how an activity occurs. The *community* is the social group that the subject(s) is(are) part of. The *division of labour* is the distribution of responsibilities within the members of the community. Lastly, the *outcome* of an activity is the final result. Yamagata-Lynch (2010) argues that analysing the elements of the system and how they relate to one another can help understand how an individual activity relates to its context.



Figure 1. The activity system (adapted from Engeström, 1987)

The existence of multiple elements in any activity system means that Activity Theory is concerned with systemic contradictions (Engeström, 1987), defined as historically accumulated tensions emerging from the coexistence of mutually exclusive elements within an activity system or between the components of different coexisting activity systems (Roth & Lee, 2007). Systemic contradictions can occur on four levels (Engeström, 1987): a tension within one component of the activity system, known as *primary contradiction*; a tension between the triangle, known as *secondary contradiction*; a tension between the

object of an activity system and the object of a more advanced form of the same activity introduced by its representatives, known as *tertiary contradiction*; and lastly, a tension between the central activity and other neighbouring activities whose object is embedded within the central activity, known as *quaternary contradiction*.

Another key concept in Activity Theory is *tool*, which Vygotsky (1978) defined as artefacts mediating the development of human mentation, and classified as physical or psychological. For Wertsch (1985), the main distinction between physical and psychological tools is that the former are used to act upon one's environment whilst the latter are used to influence an individual's behaviour and to master actions. In sociocultural theory, the development of psychological tools is known as *appropriation* or *internalisation* (Engeström, 1999; Bazerman, 2012).

In teacher education, Grossman, Smagorinsky and Valencia (1999, p. 14) developed the notion of *conceptual tool* to refer to "principles, frameworks, and ideas about teaching, learning, and English/language arts acquisition" that teachers use to articulate their actions. Although Grossman et al.'s (1999) *conceptual tool* seems to allude to principles, frameworks and ideas explicitly taught in teacher education programmes to mediate instruction (e.g. constructivism or communicative language teaching), we extend this notion to principles of teaching and learning which are not explicitly taught in teacher education courses, but that are nonetheless influential in a teacher's decision-making, and are thus learnt by studentteachers in the settings where their teacher education takes place (e.g. transmissive pedagogies).

Research Questions

Relying on the Activity Theory concepts of *contradiction* and *conceptual tool*, this study seeks to answer two research questions to illuminate the process of learning to design materials by a group of preservice teachers of English:

- What beliefs underpin the conceptual tools mediating the preservice teachers' designing of materials?
- 2. What systemic contradictions, if any, do the preservice teachers experience in their learning of materials design?

RESEARCH DESIGN

Research Settings and Participants

This study took place in two activity settings: the schools where a group of PSTs were doing their practicum, and the teacher education programme at the university. As shown in Figure 2 below, the school and university settings are each an activity system of their own; however, because the PSTs' school placement was a requirement of their teacher education course, in this study we see the activity of materials design as spread across the two settings, with the PSTs as subjects in both.



The university where the PSTs were doing their teacher education course is located in Chile and has educated teachers for over 60 years. The programme is a five-year course comprising foundation courses such as sociology and psychology of education, and disciplinary subjects such as English language, discourse studies and anglophone literature and culture, amongst others. Both education and disciplinary strands are articulated through a series of modules (*Practicum I-V* and *Didactics I-IV*) in which the PSTs interact with the theories of ELT through observing and assisting schoolteachers, designing lessons and materials, and teaching, amongst others. At the end of the programme, the PSTs have a onesemester practicum whereby they spend 20 weekly hours at a school doing the same activities, but taking a more active role than in previous years, leading teaching activities and undertaking form-teacher duties.

Four schools with a population of middle and low socioeconomic students hosted the PSTs in this study for their practicum. One school was public and the other three were *particular subvencionado* schools, which in Chile refers to schools that are run privately with public funds through a voucher system.

Participants, Data Collection and Analysis

Table 1 below provides an overview of the four groups of participants taking part in the larger study, as well as an overview of the participants whose data is included in this article. The main group of participants were eight Year Five PSTs doing their final practicum, who participated in one semi-structured interview and two stimulated-recall interviews each; in this paper we focus on four of these Year 5 PSTs whose data is representative of the group as a whole. A focus group was conducted with six Year Four PSTs (pseudonymised) taking the

Didactics III and *Practicum IV* modules, of whom two are referred to here. Seven teacher educators in charge of the English language modules, *Didactics I-IV*, and/or *Practicum I-V* took part in one interview (one included here). Four schoolteachers hosting PSTs participated in one semi-structured interview each (one included here). Finally, the programme leader participated in one interview.

Include Table 1 "Overview of participants" here

We used Stimulated Recall Interviews (SRI) with the Year 5 PSTs to help them verbalise thoughts occurring while designing materials. The theoretical foundation of SRIs is information processing, where access to memory is enhanced through prompts aiding the recall of information (Gass & Mackey, 2000), "a sort of memory prosthesis" (Dempsey, 2010, p. 352), in this case the PSTs' own materials. Two SRIs (SRI1-2) were conducted with each PST 48 hours after they had designed their materials, though because of their busy schedules this sometimes happened later. Each meeting started with a semi-structured interview to discuss who the materials were for, what their goals were, etc. Following this, the actual SRI was conducted, showing the PSTs excerpts from their own materials to elicit their thoughts.

Semi-structured interviews with the PSTs, teacher educators, and schoolteachers were used. Each PST took part in one semi-structured interview at the beginning of the study to collect data about their language learning and teaching histories, their views about materials, and their learning of teaching. Each teacher educator participated in one semi-structured interview to discuss their views about teaching materials and the role of materials in the programme. The schoolteachers also took part in a semi-structured interview to explore the role of teaching materials in their ELT practice.

One Focus Group was conducted with six Year Four PSTs. We used the Focus Group to explore the PSTs' collective experience designing materials as part of the programme. The Focus Group created a synergistic environment where the participants compared and contrasted their opinions, beliefs and experiences (Flick, 2006), allowing them to reconstruct individual and group opinions about learning to design materials more accurately.

Finally, various documents were collected to situate the study within its official context (see Flick, 2006). These were the Mineduc teacher education standards available on its website (Mineduc, 2001, 2014), the national curriculum (Mineduc, 2012, 2015, 2018), and official documents of the programme, some accessed through the programme leader and some available on the university website¹.

We used thematic analysis to identify, analyse and report patterns within the data. We followed the steps recommended by Braun and Clarke (2006) namely, a) immersing ourselves in the data; b) generating initial codes; c) re-focusing the analysis to search for themes or patterns at a broader level; d) reviewing the themes and patterns and refining them; and e) further refining the themes and patterns and naming them. For example, the extracts '... *I feel it's something more complex than what [the learners] can actually [handle], or they can process'* (Francisco, SRI2) and '*If I wanted them to write it on their notebooks, it would be like 'what a bother!'... the kids never want to write... ' (Emilia, SRI2) were both initially coded under the category of 'beliefs about the learners'. Together with other comments, it then became clear that these comments reflected two different patterns, namely, 'beliefs about the learners's abilities' for the former, and 'beliefs about the learners' dispositions' for the latter. These patterns were then further reviewed and refined, and re-named 'negative assumptions about the learners' abilities.*

¹ References to the university website are not provided to preserve anonymity of the participants and institution.

Since our focus is the PSTs' learning of materials design, we placed their data at the centre of the analysis to derive codes and themes that we later complemented with the data provided by the other participants. The codes and themes were categorised using Activity Theory to reconstruct the activity of learning to design materials. All SRIs and Interviews (apart from one) were conducted and analysed in Spanish, and data excerpts were later translated for this paper.

FINDINGS

In this section we focus on how most PSTs held negative assumptions about the learners' cognitive abilities and dispositions to learn English. These beliefs underpinned a conceptual tool mediating the PSTs' designing of materials, which we have named 'Assuming Learner Limitations'. We show how this tool mediates the materials design procress by simplifying the tasks that the PSTs decide to include, and how its development occurs within a tertiary contradiction between the school and the university.

Assuming Learner Limitations: Negative Assumptions About the Learners' Abilities and Dispositions

The PSTs made many comments on the learners and their needs, deeming them as incapable of and/or uninterested in learning English, phrasing their decisions about designing materials in terms of what the learners cannot do, which resulted in materials of a low intellectual load. We see this as a conceptual tool, which we call 'Assuming Learner Limitations'.

In terms of student abilities, below Emilia assumes that her learners were incapable of using dictionaries effectively, an assumption that she uses to justify her acting as a translator of vocabulary rather than teaching her learners how to use these materials: The kids may take ten minutes looking for a word, and on top of that, when they find it, they find a lot of words that are similar and they explode. And it's like 'no', so for that reason, I'm not too keen [on using the dictionaries] and I'd rather they ask me 'teacher, what's the meaning of this', instead of using the dictionary, because it takes them too long. (Emilia, SRI2)

Likewise, Francisco assumed that his learners were unable to cope with certain linguistic and thematic contents. He was critical of teaching them modal verbs (suggested by the schoolteacher), which he thought they could not learn:

The modal verbs... basically because they asked me (to teach them), because I feel it's something more complex than what [the learners] can actually [handle], or they can process. (Francisco, SRI2)

These negative assumptions about the learners were salient in Francisco's data. During Interview 1, when asked how he had designed materials in previous school placements, he said that the learners' low socioeconomic background meant that they would be unable to work with specific thematic contents:

The process I generally follow is to look for previous material in order to have a sort of template, and then, from that material I see what I have to work on particularly. For example, what content, in what school I am. I mean, that's a key issue because, without being pejorative, working in this school is not the same as working in the Baptist school (a school of higher socioeconomic background). The learners' level is different to the reality one faces here, the topics that you can work on are different. I mean, if in the Baptist school one works on foreign politics, they may even know the topic, but if you talk about foreign politics in this school, they don't even know what it is. If I speak to you about Nicolas Sarcozy, you may know who he is; in fact, a relatively cultured person knows him, but if I speak about him to learners in a

vulnerable school, [they say] "who is he?" They may even think he is a footballer. (Francisco, Interview 1)

Turning to the learners' dispositions, Javier (Focus Group) acknowledged that negative assumptions about the learners' attitudes towards English prevent the PSTs from asking their learners to do certain tasks:

We have told ourselves several times 'ok, if we do this.... No, I don't think they will participate'... it may also be our own fault to think so, to limit them before even trying, but it happens. (Javier, Focus Group)

Likewise, Emilia described how her materials design was influenced by a similar view:

If I wanted them to write it on their notebooks, it would be like 'what a bother!'... the kids never want to write, (...) you have to give them everything done. (Emilia, SRI2)

Much of the instructional material designed by the PSTs for these learners was mediated by these negative assumptions. We now show how these assumptions led the PSTs to simplify the tasks they included in their materials.

Assuming Learner Limitations: Simplifying tasks

Our data showed that the mediation of Assuming Learner Limitations resulted in the design of materials of low intellectual challenge. The PSTs simplified the tasks and prepared *'material of a relatively low level so that [the learners] can complete it'* (Francisco, SRI2). For example, Miguel argued that although a worksheet he had designed was *'simple enough'*, he felt that the learners would complain about the last activity consisting in writing a dialogue. To prevent this reaction, he said that he would tell them *'no, kids, work in pairs'* (Miguel, SRI2), re-purposing pair-work as a way of simplifying his material even further, rather than viewing it as a communicative/pedagogical strategy involving collaboration. Miguel also mentioned that his materials encompassed *'only a few questions of multiple*

choice and [...] one short answer to an open question that should not take [the learners] more than a sentence' (SRI2), arguing that he 'knew' the learners would not respond well to writing a job interview, in spite of the turn-by-turn template he provided, as he believed that the learners did not 'have much knowledge about structures or how an interview works'. Likewise, during SRI1, Fernanda said that she 'asked for a few sentences only', and thought that 'with four of them (...) it's enough', adding that when using the materials 'at least, about two sentences, for [her], were enough', illustrating how this simplification can be further aggravated during the actual use of the material.

An extended example of this simplification is how Emilia used multiple-choice questions, which, in her view, was determined by the potential of this task to lower the difficulty of the material (see Figure 3). In a reading worksheet discussed in SRI1, Emilia used three superficial, explicit information multiple-choice questions (Freeman, 2014) for a comprehension task, claiming that this prevented the learners from getting mentally tired. She argued that 'an activity that's easier to answer [...] and gives the learners a rest', such as multiple-choice questions, would avoid this effect, 'because after reading, who is going to want to answer if they're a bit tired already?'. Since this type of task can be done by choosing one of the options available rather than providing one's own answer, she interpreted it as giving the learners a rest rather than facilitating comprehension:

...multiple choice gives them options as well, in case they cannot come up with an answer on their own, this gives them a base. And in this case, for example, in these questions, they're really specific, so if they read the text, they will be able to look for them, it's going to be there... it's not something that they are going to have to infer or that is going to demand more work. (Emilia, SRI1)

In the following extract, Emilia reinforces her decision to use multiple-choice questions:

They are only short things because I can't attempt to include a question of production in which they give me a [long] answer, no... because it would not be real, it's something that is not going to happen... the kids are not going to produce an answer like the one I expect. (Emilia, SRI1)



Figure 3. Emilia's activity system of materials design

Emilia's phrasing – that asking the learners to produce language '*would not be real*' – shows her assumption that the learners are unable to perform a task demanding stretches of interconnected language. This was also illustrated when she explained the last activity she discussed in SRI1:

The biography is there because it's in the national curriculum, but clearly, they won't write a biography... a real biography. So, I said "ok, seven lines." (SRI1)

Although Emilia refers to '*lines*', the learners actually had to do even less: fill in gaps with personal information in sentences such as '*I like____*' or '*I hate____*', which she refers to as '*biography*'. Emilia's reasoning here is that '*they*'re only starting, so I cannot ask

them to write a big paragraph because they won't know what to do'. This claim, however, seems to be her assumption about the learners' level, as her students, who are in Year Two of secondary education, have had at least five years of English as a compulsory subject.

Likewise, in SRI2, Emilia reports asking the learners to write a short news article after reading a text. Although she traces this activity to the national curriculum and explicitly states that the learners should '*get used to writing*', she restricted the amount of production to seven lines, arguing that the learners would '*get bored*' or, as she says, '*collapse*'. As shown below, her justification for not asking the learners to write seems to lie in her denial of their disposition and ability to do so:

It was an activity suggested in the national curriculum. I thought it was good. It's not the first time the kids write a short paragraph, I feel it's good they get used to writing, and it's helped them a lot, truth be told, at least they have improved in that [skill], but no more than seven lines because that's like their limit, if I ask for more, no... they get bored, or they collapse... (SRI2)

The examples in this section illustrate how a great deal of the PSTs' designing of materials was mediated by the conceptual tool Assuming Learner Limitations. As we showed, this conceptual tool is underpinned by disparaging beliefs about their learners' capabilities and dispositions towards learning English, with its mediation in the materials design process resulting in a simplification of the materials, that in turn reduces their intellectual demand. As we show in the next section, Assuming Learner Limitations emerges amidst a tertiary contradiction between the school and teacher education programme activity settings.

A Tertiary Contradiction

In Activity Theory, a tension between the object of an activity system and the object of a more advanced form of the same activity is known as a *tertiary contradiction* (Roth & Lee,

2007). As shown in Figure 4, the emergence of 'Assuming Learner Limitations' happened within such a tertiary contradiction. In other words, the assumption that the learners were incapable of and unwilling to learn English was also present in some schoolteachers' teaching in the school settings, contradicting the pedagogy promoted by the teacher education programme.

This did not surprise the programme leader, who was aware that some schoolteachers disparaged their learners and underestimated their cognitive capacities. However, she acknowledged that it was beyond the programme's power to contest these views, as the programme depended on the schoolteachers' willingness to host PSTs in the schools for their practicum. This was seen when the programme leader said that the schoolteachers believed that speaking creates chaos, that they avoided teaching writing because the students were not going to write anything, and that they disparaged the learners. For her, all of this meant that *'because we depend on the educational system, our students have few possibilities to implement innovations'*.



Figure 4. Tertiary Contradiction beween the objects of the two educational settings

Clearly, however, this went beyond lack of innovation, and the PSTs were exposed to strong negative assumptions about their learners and described teaching practices that undermined the learners' cognitive development. For example, Loreto, who was not only a schoolteacher, but was also attached to the university and supervised three PSTs, said that the learners' demotivation to learn English was entrenched in their '*lazy*' attitude. She argued that '*they don't like [English] because they don't understand it, they don't watch films in English because they ire lazy about reading the subtitles*', and that, in their view, English was not a necessity. Like the PSTs, these views seemed to underpin her design of materials:

The learners here [...] have a constant laziness, they were born tired, and because of the age. I try making my material as infantile as possible, with cartoons everywhere. (Loreto, Schoolteacher)

Such strong negative views can be easily appropriated by the PSTs through exposure to the schoolteachers' practice. During SRI1, Miguel illustrated this when describing the schoolteachers' teaching: 'most of the classes I have seen, or the classes in which I have participated, the students are mainly waiting for the worksheet to be handed out'. He even impersonated the schoolteacher's teaching, saying 'so the teacher [is] in front of the class "right, be quiet", PowerPoint, the slides, "well, we're going to work on the worksheet with this"'. What is interesting here is that Miguel highlights the pupils' passive learning dispositions, but does not refer to the schoolteacher's teaching practices, which seem to position the learners as passive agents in the first place. This is more clearly reflected towards the end of Miguel's comment when he said that the learners reacted to these forms of teaching with 'the typical questions "teacher, what do we have to do?" instead of them trying to work in a more autonomous way themselves'. Whilst acknowledging that the learners do enquire about the tasks, he seemed to ignore this and characterised them as passive.

Even more extreme examples are cases where the schoolteachers explicitly instil negative views about the learners in the PSTs. For example, Pablo substantiated the tertiary contradiction when mentioning how the schoolteacher had advised him to not use group work or teach speaking through his material:

I talked to the schoolteacher the other day [and he said] 'look, [the students] say this to you (that they want to work in groups), but when they work in groups they get messy, and when I ask them to speak, they don't speak'. (Pablo, Focus Group)

However, Pablo resisted the schoolteacher's suggestion, showing how he resolved the tertiary contradiction he experienced. Below he goes on to describe his attempt to enact a 'more advanced form of the activity' (Roth & Lee, 2007, p. 203), commenting on how the negative expectations about the learners promoted by the schoolteacher did not underpin his pedagogical decision-making:

So I said, it doesn't matter, I will take the risk and I will do listening and speaking, I will group them, after all, the result doesn't matter, they're going to get something anyway, and the important thing is to try something new. (Pablo, Focus Group)

Below, Pablo attributes the decision to challenge these negative views to the teacher education programme:

Long ago I learnt that, for example, our implementations (meaning teaching his own lessons) for the university, the result does not matter but what we do with it. For example, here at the university, what's important is that your class, quote unquote, even if it fails, what we have to do is to work with that weakness...(Pablo, Focus Group)

In fact, one of the aspects promoted by the teacher education programme was the design of materials that raised, rather than reduced, the cognitive demands on the learners. Below we see how the teacher educator, Maria, describes an interaction between her and the

PSTs in her English language module when discussing a materials design issue. On this module she asked the PSTs to prepare a microteaching session about adverbial clauses. When reviewing some of the materials designed by the PSTs she noticed that some materials clearly reduced the cognitive demand posed on the learners. Her reaction shows how she explicity highlights for the PSTs how the PowerPoint they designed was doing this, and her disagreement with this thinking:

Well, they had about ten sentences [on the PowerPoint], all of them with different subordinators, and different colours: red, blue, yellow, green. I looked and asked them 'what are you going to do with this?' There were four rectangles down here of different colours that represented the sentences... [I asked] 'What are you going to do with that?' [and they said] 'oh, [the learners] have to place the words in the rectangles', and I said to them 'but the colour is telling me the answer, I mean, the red one goes in the red rectangle, the yellow one in the yellow one'... (Maria, Teacher Educator)

Another example of how the PSTs were encouraged to raise the demand of their materials is an interaction recalled by Fernanda with her practicum supervisor, Loreto. During Interview 1, Fernanda seemed concerned by how Loreto had asked her to include more comprehension tasks for a reading material she had designed, voicing her disagreement with her supervisor's request:

...because I know how they work, they're like very lazy, and I believe that they're not even going to complete the box, or it's going to be complicated for them, and if I have to add more items to that worksheet, I'm not going to see that worksheet completed. The learners are going to get more scared. (Fernanda, Interview 1)

This comment is interesting for two reasons. Not only does it show how Fernanda experiences the tertiary contradiction (again revealing her negative assumptions about the

learners), but it also evidences how the contradiction is experienced by other members of the activity system, in this case her practicum supervisor, Loreto. As mentioned earlier, in her role as a schoolteacher, Loreto strongly disparaged her own students when referring to how she designed her own materials; however, in her role as supervisor for the teacher education programme, she seemed to promote a type of pedagogy that raised the intellectual challenge through materials. For us, this reflects the different layers of complexity of this tertiary contradiction.

DISCUSSION

This study has shown the presence of the conceptual tool, Assuming Learner Limitations, as a powerful mediator of the PST's materials design, and how it was underpinned by negative assumptions about the learners' capacities and dispositions. We also showed how its emergence occurred amidst a tertiary contradiction between the school and university settings. Noting Tomlinson's (1998, p. 21) assertion that "materials should maximize learning potential by encouraging *intellectual*, aesthetic and emotional involvement" (our emphasis), this conceptual tool emerges as extremely problematic.

Assuming Learner Limitations

The teacher education literature has recognised the extremely influential role that beliefs have in the instructional choices that teachers and preservice teachers make (Basturkmen 2012; Borg, 2003; Richardson, 1996, 2003). In this light, the emergence of 'Assuming Learner Limitations' as a conceptual tool, although worrying, is perhaps unsurprising. Previous research suggests the existence of similar rationales by materials designers which result in a low intellectual load in textbooks (e.g. Andon & Wingate, 2013; Santos, 2013; Tomlinson & Masuhara, 2013), and shows that language teachers can be prone to reducing the cognitive

demands posed on learners when designing or adapting tasks (e.g., de Araujo, 2012; Lux and Wochele, 2013; Pettit, 2011). Our study extends these findings to the actions of preservice teachers. It highlights how the PSTs' negative assumptions about learners reflect beliefs about the learners' cognitive and dispositional characteristics, which in some cases (e.g. Francisco's), sound uncomfortably like previous research about how prejudices and social class biases result in teachers holding low expectations for their learners that in turn limit their academic progress (e.g. Rubie-Davies, et al., 2006). More specifically, we illustrated how the PSTs used these assumptions to simplify the tasks that the learners were given in the material.

This simplification of the material by the PSTs emerged in part as the by-product of an affective concern for the learners, which Sharkey and Layzer (2000, p. 361) describe as a benevolent conspiracy, i.e. providing a comfortable instructional environment without necessarily facilitating academic development. Tomlinson (1998) argues that this phenomenon probably emanates from the belief that confidence and relaxation are vital for learning a language. However, he laments that this has been interpreted by materials developers as a call for simplifying materials, asking learners to use simple language and to accomplish easy tasks such as "completing substitution tables, writing simple sentences and filling in the blanks in dialogues" (Tomlinson, 1998, p. 11). This was in effect epitomised by Miguel, Emilia and Fernanda, who chose multiple-choice questions and short answer questions as activities following reading passages, believing that such activities prevent the learners from getting tired or overwhelmed.

Tomlinson (2008, p. 8) has also criticised some materials writers for treating language learning beginners as "intellectually low level learners". His comments, albeit about experienced materials writers, chime with Emilia's asking her learners to complete sentences; with Miguel's writing of a four-sentence dialogue in pairs; and with Fernanda's asking her

learners to write four sentences (and then reducing this to only two), which they all equated with language production. In doing this, the PSTs seemed to give the learners (and probably the schoolteachers and teacher educators) the illusion that they had completed the activities and achieved language learning (see Tomlinson, 1998, 2008).

A Tertiary Contradiction Between the Teacher Education Programme and the School Settings

The misfit between the schoolteachers' assumption that the learners were incapable of and unwilling to learn, and the type of pedagogy instilled in the PSTs by the teacher educators, emerged as a strong tertiary contradiction. This was clearly seen in Pablo's recollection of how the schoolteacher had asked him to avoid teaching speaking through group activities, which, he thought, contradicted the teaching principles he had '*long ago learnt*' in the university. His comment shows the effect of the teacher education programme in his development of a more advanced form of activity (Roth & Lee, 2007), a phenomenon documented in ELT teacher education in Chile (e.g., Tagle et al., 2012).

However, as discussed above, this tension made most PSTs gravitate towards the pedagogy they were exposed to and required to adopt by the schoolteachers. The schoolteachers' influence on the student-teachers' development of disparaging beliefs about the learners is perhaps unsurprising given what we know about the influence of the practicum in the student-teachers' development of teaching and learning views (e.g. Calderhead, 1988), particularly of school-based mentors (e.g. Farrell, 2008). In Activity Theory parlance, the schoolteachers' division of labour, i.e., the distribution of responsibilities and tasks within the community of an activity (Yamagata-Lynch, 2010), flowed between providing pedagogical models based on assumed learner limitations as well as explicitly telling the PSTs to lower the intellectual load of their materials. Although these models were not about designing

materials, they were nonetheless influential in how the PSTs established relations between themselves, their materials and their learners. For example, Miguel's description of his schoolteacher's teaching practice of handing out worksheets to learners who were only waiting to be taught content, shows his conceptualisation of the learners as passive agents and as '*not used to questioning what they are taught*', a rationale which he then used to design his own materials. The development of these views, as Fairbanks, Freedman, and Kahn (2000) argue, arises because PSTs see their mentors' teaching knowledge as professional knowledge to be replicated (see also Salinas & Ayala, 2018, in the Chilean context).

Perhaps the best example of this tertiary contradiction is not a PST, but Loreto, whose roles as a schoolteacher and as a supervisor attached to the university resulted in a struggle to implement in the school the more advanced forms of activity she promoted as one of the preservice teachers' supervisor for the teacher education programme. This was clearly seen when Fernanda recalled how her supervisor, Loreto, had asked her to increase the number of tasks in her material, whereas as a schoolteacher herself, she disparaged her learners and used Assuming Learner Limitations in her design of *'infantile'* materials. What emerges here is the strong disconnect between university programmes and school settings (see Barahona, 2016).

CONCLUSION

This study explored the learning of materials design by a group of PSTs in Chile. Through Activity Theory, we identified Assuming Learner Limitations as a conceptual tool mediating the PSTs' designing of materials, which was underpinned by negative views about the learners' capacities and dispositions towards learning English. We also identified a tertiary contradiction between the teacher education programme's object of ELT and the practice of ELT in the schools. These findings complement the scant literature about the rationales used by English language teachers to develop materials. We argue that Assuming Learner Limitations is a worrying phenomenon with important implications for teacher education. Teacher educators should be aware of the possibility of student-teachers developing and/or adopting this conceptual tool, and be able to identify its manifestations in materials or teaching in general. Since at the heart of this conceptual tool there is a strong underestimation and disparagement of the learners, teacher educators should examine with student-teachers their views of learners. One way of doing this is through examples of cases where Assuming Learner Limitations happens, followed by discussions of the likely implications of teaching that is permeated with this conceptual tool. Following reflective models of teacher education, another way is asking student-teachers to make explicit the rationales underpinning their designing of materials. These rationales can then be examined by student-teachers with the help of their teacher educators to evaluate how they promote or hinder learner development. We believe that such understandings will contribute to student-teachers developing more appropriate views and appreciation of their learners, and suggest that explicitly clarifying these attitudes and beliefs is an important step in moving away from them.

Finally, we argue that studying the design of language teaching materials by preservice teachers will not only illuminate what we know about materials and the rationales underpinning their design, but also what we know about how teachers learn to teach. As we have shown, this area not only has potential from a research perspective, but it is also vital considering the role that teaching materials have in the teachers' daily lives in classrooms.

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TABLE 1

Overview of participants and methods

Participants	Total Number	Included in this paper	Pseudonyms	Data collection method
Year 5 PSTs	8	4	Emilia Francisco Miguel Fernanda	Initial Semi-Structured interview; Two Stimulated Recall Interviews per participant
Year 4 PSTs	6	2	Javier Pablo	Focus Group with all Year 4 PSTs
Teacher Educators	7	1	Maria	Individual interviews
Programme Leader	1	1	Inez	Individual interviews
Schoolteachers	4	1	Loreto	Individual interview