Designing for diversity in Aotearoa / New Zealand Chinese language classrooms

Grace Y. Qi iD
Massey University, New Zealand

Susan Y. H. Sun
Auckland University of Technology, New Zealand

Lucila Carvalho
Massey University, New Zealand

Abstract

There has been an increased interest in teaching and learning Chinese language across many schools in Aotearoa / New Zealand (NZ). Chinese language teachers, particularly those new to the Aotearoa/NZ schools and education system, are confronted with (1) an educational environment that calls for learner-centred pedagogies and (2) an increasingly diverse classroom that requires these teachers to adopt pedagogical strategies that address and cater for diversity. In response to these needs, this article discusses a case study of a research-informed professional development (PD) workshop designed to support Chinese language teachers to (1) identify ways that diversity manifests in the Aotearoa/NZ classroom and (2) figure out how to design for learning whilst accounting for diversity in Aotearoa/NZ. The workshop promoted a discussion on diversity from an inclusive, heterogeneous perspective, and introduced teachers to contemporary conceptual ideas connected to 'teaching-as-design', and to the Activity-Centred Analysis and Design (ACAD) framework. Teachers (N = 19) were randomly assigned to groups of three to five. Groups were encouraged to collaborate on the design of learning tasks that incorporated TBLT (Task-Based Language Teaching) and addressed diversity in the classroom. Analysis of their design activities and produced artefacts reveals that teachers' understanding of diversity comprised many characteristics, they held a positive attitude towards being responsive to diversity, and were able to experiment with new design concepts and ideas using the ACAD toolkit. In particular, teachers were able to successfully expand the design of their learning tasks to include social and

Corresponding author:
Grace Y. Qi, School of Humanities, Media and Creative Communication, Massey University. Private Bag 102, 904 North Shore, Auckland, 0745, New Zealand
Email: g.qi@massey.ac.nz

material design elements to address learner diversity. Findings also reveal teachers' emerging awareness of their dual role as facilitators and as teacher-designers.

Keywords
ACAD framework, Chinese language teaching, design for learning, diversity, language teacher, professional development

I Introduction

The release of *Learning Languages* in the New Zealand Curriculum (Ministry of Education, 2007, 2014b) along with the provision of different languages programmes in Aotearoa / New Zealand (NZ) schools have supported many students to choose a second/ additional language (L2) as a key learning area. The Curriculum recognizes the important role L2 learning plays in connecting students both locally and globally, and enables them to develop intercultural understanding and competence, including critical thinking and a better understanding of the power of language (Ministry of Education, 2014b). The inclusion of these significant social values of L2 learning for future generations in the Curriculum acknowledges the emergence of an ethnically and culturally diverse Aotearoa/NZ. However, Chinese and other languages are still categorized as 'international languages' in the Curriculum, separated from the national bicultural agenda (Bromell, 2008; Ghosh, 2015; May, 2002) – highlighting Māori language rights as regulated by the Te Tiriti o Waitangi (Waitangi Tribunal, 1986, as cited by May, 2002). Although *Learning Languages* in the Curriculum addresses the recommendations of external reviews undertaken between 1990s and early 2000s, who asked for separating learning areas into English / Te Reo Māori and languages (Harvey, 2013), that still fails to reflect the diversity or superdiversity (Harvey, 2013) of Aotearoa/NZ. The so-called 'international languages' are in fact the community languages – as a consequence of ongoing marginalization of heritage learners and learners in need of continuing their language development, and which have arguably limited this nation's potential to become a multilingual society (Qi, 2021). According to the 2018 Census, 27.4% of the population were born overseas, whose birthplaces cover almost every country in the world. While the Census data admits ethnic, cultural and linguistic diversities as the norm for Aotearoa/NZ, there is a lack of a national language policy to officially identify languages that need support, specifically recognizing their language status and investing in supporting languages spoken / in use at different levels for bi-/multi-lingual nation building. As a result, teaching and learning languages, particularly community languages (labelled as 'international language' in the Curriculum), is scarce (Auckland Languages Strategy Working Group, 2018; Harvey, 2013). All of these in turn lead to L2 teachers being challenged by learning contexts with diverse learners and their needs, and not enough support on how to address this diversity (Carr, 2005; Mahmoodi-Shahrebabaki, 2017; Suprayogi et al., 2017).

Learner diversity in (language) classrooms is often complex and dynamic. Alton-Lee (2003), in a report to the Ministry of Education, attempted to describe, conceptually, 'diversity' in the Aotearoa/NZ context.

. . . This frame rejects the notion of a 'normal' group and 'other' or minority groups of children and constitutes diversity and differences as central to the classroom endeavour and central to the focus of quality teaching in Aotearoa, New Zealand. It is fundamental to the approach taken to diversity in New Zealand education that it honours the Treaty of Waitangi. (p. v)

This statement emphasizes heterogeneity as a principle and recognizes that 'difference' is a characteristic of any group of students. It highlights that teaching needs to recognize and be responsive to multi-layered 'diversity', encompassing ethnicity, socio-economic background, home language, cultural heritage(s), gender, special needs, disability, and giftedness/talent (Alton-Lee, 2003).

Indeed, language teachers can relate to the increasing diversity in their classrooms. For instance, many Chinese language classrooms, among classrooms in which other languages are taught in Aotearoa/NZ secondary schools, have become 'multi-level' (Ashton, 2018, p. 104) due to the continuing decline in the number of students choosing to study these languages in the senior school (Years 11, 12 and 13, the final three years of secondary school). Schools have little choice but to combine two or three year-levels into one single class. Very little school-based support or professional development (PD) is offered to teachers in how to approach and design for learning in these 'multi-level' classes (Ashton, 2018). 'Multi-level' classes have added more pressure to the existing complexity of learners' diversity and been identified as a significant challenge for teachers (Ashton, 2018, 2021; Badenhorst & East, 2015).

The 'standard-based assessment' aligned with the 'achievement levels' in the National Certificate of Educational Achievement (NCEA) adopted for secondary schools (Ministry of Education, 2007) requires each individual student's evidence-based learning or achievement outcomes to be documented in a standard format of assessments. To achieve this in the diverse classrooms, as a consequence, language teachers need to come up with a personalized approach to help individual learners. This personalized approach aligns well with a conceptualization of diversity that focuses on addressing the needs of individual students and their learning development and progress (Conner, 2013). One main issue, however, has been that educational inequalities have become more apparent, particularly in relation to Māori and Pasifika students' achievement. Fickel et al. (2017) consider the need for a holistic, humanizing view of education, grounded on Indigenous perspectives. Such educational vision prioritizes learning that promotes relationships – with one's self and with others – through an increased awareness of mutual connections and interdependence. This vision resonates with Bishop's (2019) development of a relationship-based teaching practice that addresses diversity in the Aotearoa/NZ classroom, particularly in relation to Māori and other marginalized students. These students often have diverse linguistic and cultural backgrounds and have different learning needs. This means that teaching practices are required to incorporate diverse cultural worldviews and concepts (Bishop & Berryman, 2006). To achieve the relationship-based teaching practice, the Māori concept of *kaupapa* ('working together to find solutions') have been introduced to encourage teachers working collaboratively, sharing resources to support effective teaching (Ministry of Education, 2007), as well as to form relational connections with students, to address and accommodate their diversity of needs.

Overall, the mismatch between policy and practice is explicit. Policy recommends and emphasizes the importance of 'diversity', but there is not too much information on how to action this in practice. For teachers it can be particularly difficult given the complex nature of teaching in general, and the concept of diversity in particular and how it manifests in everyday practice for each teacher.

Responding to these challenges, and inspired by the notion of *kaupapa*, we conducted a face-to-face professional development (PD) workshop for Chinese language teachers (N = 19) in Aotearoa/NZ schools during a week-long national celebration and promotion of the Chinese language in 2019 (also known as Chinese Language Week). Workshop attendees included teachers in secondary and primary schools, as well as community language schools. The workshop was designed to highlight the increasing diversity in Chinese language classrooms and to introduce teachers to current educational design concepts, approaches and a toolkit.

Educational design has its roots in instructional design, which in the past, focused narrowly on the design of 'learning content' and on providing specifications for 'effective solutions' related to educational problems (Rienties et al., 2018). Departing from such narrow foci, contemporary educational design or Learning Design (LD) places its emphasis on the learners – the context and processes of learning (Law et al., 2017). LD researchers have used the term 'design for learning' (DfL) to acknowledge that learning cannot be designed, though it can be designed *for* (Beetham & Sharpe, 2013; Goodyear & Dimitriadis, 2013; Sun & Goodyear, 2020). As Goodyear and Dimitriadis (2013) eloquently put it: 'One cannot design someone else's experience. One cannot design their happiness. One cannot design their learning. Only the person who is learning can learn' (paragraph 2). However, educators involved in design for learning, such as teachers, 'can design *things* that help other people learn' (Goodyear & Dimitriadis, 2013, para 2). In considering teaching as a design science, DfL calls for re-positioning the role of teachers, or for seeing 'teachers-as-designers' (Beetham & Sharpe, 2013; Laurillard, 2012).

The work of teacher-designers can be supported through contemporary design frameworks. A recent development in this area is the Activity-Centred Analysis and Design (ACAD) framework (Goodyear & Carvalho, 2014; Goodyear et al., 2021). ACAD helps teacher-designers to recognize components of a learning environment that are open to change through design – or the 'designable' elements (e.g. learning tasks, physical or digital tools, or the social organization of learners). ACAD also foregrounds learning activity as an emergent phenomenon, one that cannot be entirely controlled or predicted in advance. As such, learning activity emerges at 'learntime' (or the time when learners interact with the assemblage of elements that was designed in advance by teacher-designers). ACAD facilitates educational design work by encouraging teacher-designers to search for relationships between designable components and the emergent activity. We will return to these ideas later in the article.

This article reports on a research-led PD workshop designed to support Aotearoa/NZ-based Chinese language teachers to consider ways of addressing diversity in their classrooms. The workshop introduced teachers to current language teaching approaches including Task-Based Language Teaching (TBLT) – emphasizing a task is more complex than a workplan or an exercise that need spontaneous meaning making through communication (Breen, 1989) and theoretically grounded design practices and approaches. The

teachers also had opportunities to engage in practical design work, through a design brief focused on addressing diversity in language education. The next section introduces concepts connected to diversity in language education.

I Diversity in contemporary language classrooms

In superdiverse societies where there is a high number of migrants, such as in Aotearoa/ NZ, the needs of diverse populations have to be considered in policy (Spoonley, 2015). As such, teacher education programmes are often required to meet specific standards that promote learning for diversity (Teaching Council of Aotearoa / New Zealand, 2019). The international education strategic goal 2018–30 (Ministry of Education, 2018) outlines that 'all students [need to] gain the knowledge, skills and capabilities they need to live, work and learn globally' as a core achievement measure for global citizens (p. 5) and calls for educational institutions to value 'cultural capital and cultural diversity' and 'encourage[s] the development of New Zealanders' understanding of other languages and cultures' (p. 23).

Conway and Richards (2017) consider that the multifaceted and complex characteristics of diversity may incorporate 'race, ethnicity, culture, and a range of factors in an individual identity, such as social class, religion, gender, age, nationality and language use' (p. 28). The meaning of 'diversity' depends on the way that a particular speaker uses language in relation to different speakers and for different purposes (Musgrave & Bradshaw, 2014). Indeed, the changing nature of an individual's lived experience, their contexts and other factors, are all fluid, and contribute to the complexity of diversity, and the many factors that may shape people's social experiences (Machart et al., 2014).

In language education, it is particularly important that both the linguistic and cultural diversities of language learners are acknowledged (Conway & Richards, 2017; Orton & Scrimgeour, 2019). Language and culture are inseparable and intertwined in any communication. However, research indicates that classroom-based teaching tends to sacrifice the cultural dimension in favour of the linguistic dimension, which is at odds with the Aotearoa/NZ education system and the need to promote intercultural communicative competence in language education (Conway et al., 2010; Larzén-Östermark, 2008; Oranje & Smith, 2018; Sercu et al., 2005; Young & Sachdev, 2011). Research also shows that other factors, rather than linguistic and cultural diversities, are hardly considered by teachers. For example, Alton-Lee (2003) highlights that NZ teachers tend to have low expectations of Māori learners, adopting a deficit perspective to explain attainment and cultural differences. Teachers lack knowledge of the home and community practices of these learners. They have little understanding of the language and culture that learners bring to the classroom, as well as their motivation to language learning, ethnic heritages, gender differences, special learning needs, disability, religions and beliefs etc. Thus, teachers' understanding of diversity in general, and learner diversity in particular, are often oversimplified, lacking insight on how each and every learner could be accommodated in the language classroom (Conway & Richards, 2017; Thorius & Waitoller, 2017). As Cioè-Peña (2022) warned us, 'We must recognize that fidelity to linguistic standards will not protect culturally and linguistically diverse people nor their practices or ways of being' (pp. 30–31).

The rising interest in learning Chinese at school and other educational settings has led to the development of new curricular resources to help teachers 'design their programmes, and deliver meaningful learning opportunities for learners' (Orton & Scrimgeour, 2019, p. 126). However, these resources are often designed with the assumption that there is only 'a single-entry point for learners who are largely monolingual English speakers with little or no knowledge or experience with Chinese language and culture' (Orton & Scrimgeour, 2019, p. 126). As such, learners are framed as a single, linear, and homogenous group, regardless of the diversity of each and every learner and between them. In addition, heritage learners are often a large proportion of the senior year levels at Aotearoa/NZ secondary schools (Harvey, 2013; Harvey et al., 2010). Orton (2008, 2016) argues that ideally, students who speak or use Chinese at home need a tailored curriculum and separate teaching programme. However, this is seldom viable in school contexts – as has already been mentioned, 'multi-level' classes are taking over the mid to senior year levels (Years 9–13) and have become the norm for different proficiency levels of learners in Aotearoa/NZ (Ashton, 2018). Nevertheless, the reality is that Chinese language teachers are required to design appropriate tasks that accommodate students diversity and acknowledge their needs in multiple contexts.

2 Task design for language teaching and learning

There is a consensus among L2 educators that tasks support and facilitate L2 development and performance (e.g. Gass & Mackey, 2006; Mackey, 2012; Swain, 2005). As a result, a Task-Based Language Teaching (TBLT) approach emerged and became the leading pedagogical approach in L2 learning (Ziegler, 2016). Richards (2006) asserts that TBLT encompasses meaningful and communicative characteristics, with its roots in the Communicative Language Teaching approach (Ellis et al., 2020), which is about learning-through-communication, prioritizing communicative L2 (Ellis, 2017).

The New Zealand Curriculum for *Learning Languages* clearly indicates that 'communication is the basis for assessment', with this objective outlined as part of two strands: language knowledge and cultural knowledge (Ministry of Education, 2014a). In other words, the Curriculum seems to affirm what TBLT suggests as a meaningful process for language learning, where interlocutors exchange ideas and use language in context, and in connection to social and cultural awareness.

An important question then involves understanding how teachers may design tasks for language learning that take into account the diversity in a classroom? From a sociocultural perspective, some of the key principles for task design include supporting learners to take multiple routes to solve problems and the use of various resources. For instance, teachers could design an overarching task for all learners, with variations for sometimes having learners working as a whole class, sometimes working in groups, in pairs, and on their own, depending on their needs and abilities. Teachers could also design tasks that involve learners' using differentiated resources and materials within an overarching shared topic. TBLT focuses on the learners' needs, fitting individual abilities, knowledge, lived experiences and socio-cultural contexts (East, 2021). From an epistemic perspective, TBLT is a pedagogical approach that helps teachers to implement situated learning (Lave & Wenger, 1991). And it is important that teachers understand

that a learning task may address diversity in multiple ways and at multiple levels. In addition, tasks should also be designed with specific physical and social elements in mind, as these also contribute to influence emergent learning activities and the potential for positive learning outcomes.

Prior to our workshop, teachers were briefly introduced to TBLT as a way to ground their task design. At the workshop they were invited to reflect on and to conceptualize learning tasks for their learners in schools. There were multiple mini-tasks, especially tailored for their experience of resolving task-related problems or inquiries, where they could use the learning language in socialization for self-exploration and collaboration with peer teachers. Teachers were also exposed to a view of design for learning that differentiates between what can be designed in advance and what emerges at learntime by watching a video, followed by a short discussion with their peer teachers. Design for learning requires teachers to consider multifaceted aspects that may influence learning activity – which includes aspects related to TBLT (Sun, 2021) – in their Chinese language classrooms.

3 Framing design for learning

The Activity-Centred Analysis and Design (ACAD) framework (Goodyear & Carvalho, 2014; Goodyear et al., 2021) is an analytical tool designed to reveal the architecture of complex learning situations. ACAD is concerned with the physical, social and epistemic situatedness of learning, carefully drawing attention to designable aspects of a learning situation through three distinct dimensions of design: (1) set design, (2) epistemic design and (3) social design. The fourth dimension – the co-creation and co-configuration activity – foregrounds that learning activity is not designable, but an emergent phenomenon, acknowledging learners' agency to re-configure and co-construct what has been designed by educators.

Set design relates to the choices an educator makes about the digital and material elements that will be available to learners, including classroom objects and furniture arrangements. Epistemic design refers to learning tasks, as educators focus on valuable tasks for learners to do, and on different ways of structuring knowledge and information. Social design is about the nature of social arrangements, including the formation of groups, scaffolding through scripted roles, and divisions of labour.

Drawing on the ACAD framework, Yeoman and Carvalho (2019) developed the ACAD Toolkit, with a range of tangible elements to support educational design work. The toolkit includes the ACAD cards, which act as scaffolds to stimulate design conversations, and to support design work that foregrounds alignment between the material, social, and conceptual structures of learning. The ACAD cards are colour-coded visual representations that can be shared, reconfigured, discussed and agreed upon. Yeoman and Carvalho (2019) argue that using these tangible elements to facilitate collaborative design work may reduce the complexity of this work, the cards 'act' as reminders about different possible elements for their design. The ACAD cards 'provide support for educators [who are] increasingly being asked to think bigger, be more creative, and develop learning designs capable of preparing learners to solve the complex challenges of our times' (Yeoman et al., 2020, p. 2).

Overall, the ACAD cards act as conversational prompts to situate the work of mixed teams of educational designers or teachers. People working in groups draw on the suggestive headline terms, such as 'collaborative learning studio' (set design), 'assigned mentor' (social design), or 'peer assessment' (epistemic design) to talk about their meaning in education and in their designs. These headline terms aim to initiate group dialogue about potential designable elements across the three dimensions of design: set, social and epistemic. It is possible that a group of teachers might engage in successful collaborative design without the support of prompts. However, the ACAD cards act as 'boundary objects' or objects that are used to mediate and focus conversations about learning design (Yeoman & Carvalho, 2019). The ACAD framework and toolkit have been used in several educational design workshops (Yeoman & Carvalho, 2019; Yeoman et al., 2020) including in our PD workshop, when the Chinese teachers used the ACAD cards to plan a learning task that would respond to diversity in their classrooms. A summary of the headline terms appears in Table 1. As presented in the table, the yellow cards (or epistemic design cards) have been connected to the Studio Structures of learning, therefore including demonstration-lectures, students-at-work, critique, and exhibition. These terms have been used to describe teachers' agency in (re)shaping/designing classroom instruction in ways that focus on the thinking involved in creating (Hetland et al., 2013), as well as other four categories of learning, such as directed, exploratory, productive and reflective (Law, 2017). More detail about how headline terms were created for the ACAD cards and how they have been used, the types of interaction observed in workshops is discussed in Yeoman and Carvalho (2019).

Table 1. The headline terms in the Activity-Centred Analysis and Design (ACAD) cards and three dimensions of design: Set, social and epistemic.

ACAD set design: The green cards	ACAD social design: The orange cards	ACAD epistemic design: The yellow cards
Cabaret theatre	Individuals	Demonstration-lecture (SS)
Case study theatre	Pairs	Students-at-work (SS)
Classroom	Groups	Critique (SS)
Cleaning cloth	Teams	Exhibition (SS)
Clock	Facilitator	Studio transitions (SS)
Collaborative studio	Idea-generator	Worksheet/handout (D)
Erasable pens	Time-keeper	Lecture/invited speaker (D)
Exhibition space	Note-taker	Assigned reading (D)
Flat floor computing	Reporter	Assigned questions (D)
Flat floor dry lab	Spectator	Written assessment (D)
Flat floor wet lab	Advocate	Policy documents (E)
Harvard style theatre	Critic	Academic publications (E)
Immersive computing	Analyst	Social media (E)
In-between	Pioneer	Case studies (E)
Individual open	Disruptor	Collaborative problem solving (E)
Individual secluded	Connector	Panel of speakers (E)
Laptops	On-task-person	Role/game playing (E)

Table 1. (Continued)

Learning Lab	Peacemaker	Conducting experiments (E)
Lecture theatre	Snooper	Fieldwork (E)
LMS (Learning Management System)	Archivist/curator	Simulation (E)
Online forum	Mentor	Oral assessment (E)
Outside	Mentee	Concept mapping/Brainstorm (P)
Pen and paper	Community leader	Composing (P)
Post-its	Community member	Model building (P)
Seminar room	Community representative	Defence/debate (P)
Simulation space	The teacher	Individual journal entry (R)
Smartphones	The learner	Feedback to group (R)
Social media application	The audience	Teach-a-friend (R)
Tablets	The next user	Assess your own work (R)
Writable surfaces	The invisible other	Assess a peer's work (R)

Notes. SS = studio structures. D = directed learning. E = exploratory learning. P = productive learning. R = reflective learning.
Source. Yeoman & Carvalho, 2019.

II Research design and methods

The study has two interrelated aims. The first aim is to support Chinese language teachers to identify ways that diversity manifests in Aotearoa/NZ-based Chinese language classrooms. Within the context of diversity, the study also aims to introduce design for learning (DfL) knowledge and practice, as a way to address diversity through the design of lessons by Chinese language teachers in Aotearoa/NZ schools. By exploring the teachers' engagement in design activity and their ways of dealing with diversity using TBLT, we were interested in how teachers saw their role within learning design, how they created tasks to address diversity in their classrooms, and whether they would be able to consider different design dimensions when supported by the ACAD framework and toolkit. The following research questions guided our study:

- Research question 1: How do Chinese language teachers perceive diversity in their classrooms?
- Research question 2: What are their perceptions of their role(s), and how can they be supported to see themselves as facilitators and/or as teacher-designers when creating tasks to address diversity in their classrooms?
- Research question 3: How and in what ways do Chinese language teachers consider multiple design dimensions when creating tasks that address diversity in their classrooms?

A case study methodology was employed (Creswell, 2003). The study was conducted as part of a one-day symposium with Chinese language teachers (N = 19) in Auckland-based schools. Except for one teacher born in Aotearoa/NZ who described herself as a heritage speaker of Mandarin Chinese (B3 in Group 3), the remaining group were

in-service teachers born in mainland China, Hong Kong or Taiwan and received teacher training in Aotearoa/NZ. The overall theme of the symposium was about addressing and responding to the increasingly multifaceted diversity in the Chinese language classroom. Prior to attending our workshop, teachers had attended sessions about TBLT, home language and educational issues in the Aotearoa/NZ Chinese communities. Building on these earlier sessions, the workshop discussed in this article focused on design for learning in response to diversity. Ethical approval for this research was obtained from the Human Ethics Committee at the host university where the workshop was conducted, and informed consent by all participants was obtained and recorded.

III Data gathering and analysis

Teachers were randomly assigned into groups of 3–5 individuals and their interactions were audio-recorded (with a recorder device placed at each table) and transcribed for thematic analysis (Braun & Clarke, 2006). Artefacts created by participants during the session (scribbles and notes) and images of the final conceptual design were also collected.

Two researchers independently analysed each group's discussion (both researchers were bilingual in English and Chinese) searching for common themes within the data, with a focus on the design process. The use of multiple sources of data (audio recordings, teachers' notes and artefacts) and having two researchers independently analyse the data, allowed for data triangulation.

1 The workshop session

At the beginning of the workshop, there was a 15-minute presentation about the ACAD framework and conceptual ideas in design for learning, including considerations of 'teachers-as-designers' (Laurillard, 2012) and examples of how various aspects and elements of a task can be identified in practice. The teachers were then asked to collaborate on a design task for two hours. They were given the following design brief:

> Your job is to design a learning task that addresses diversity in your classroom. In your design, you can be specific about learners' needs and the background of your learners, such as they will be in different groups or mixed groups of students that have, potentially for example – Chinese as background language, Chinese as first language, Chinese as second language, etc. Consider who are your learners, what they need, what they enjoy. Your group will decide how to structure a learning task, social arrangements of students (e.g. groups, pairs, individual work), and digital or material elements students might interact with.

Teachers had access to a deck of the ACAD cards (Yeoman & Carvalho, 2019) (see Table 1), a drawing of the ACAD framework (Figure 1), stationery like post-its, pens and paper. At the end of the workshop, the design concepts created by each group were shared with the wider group.

Figure 1. The exemplar drawing of the Activity-Centred Analysis and Design (ACAD) framework.

2 Scaffolding the design process

The design process was sequentially scaffolded through sub-tasks. These had the dual purpose of: (1) gradually introducing the teachers to the ACAD conceptual ideas, and (2) showcasing how these ideas could support their design work (i.e. unpacking the complexity of the design task for the teachers). Teachers engaged in practical design activity through five sequential steps. First, they were encouraged to share their understanding of how diversity could be reflected in their practices. This step involved brainstorming ideas and discussing underlying values that would underpin their design, connected to their notions of 'diversity in the classroom'. Teachers were provided with an opportunity to express their own understanding and perspectives of diversity, to share and synthesize ideas they had been exposed to in previous discussions during the day. This step aimed to create a shared basis from which group members would build upon, which was essential for their design collaboration. The second, third and fourth steps drew on the ACAD dimensions of design, when teachers used the ACAD cards, and were encouraged to consider social, epistemic and set elements, respectively. Each step invited teachers to interact with a deck of ACAD cards. For example, teachers were given a first deck and invited to read the headline terms in the social design cards and discuss what they meant in actual design. As teachers read the words in the cards, they talked about the meaning of particular terms, stopping at terms they found interesting or those they needed further clarification. Teachers were then asked to choose five cards that they would like to set aside and potentially use for their design. In this step, teachers needed to decide design elements that could be relevant or not; for example, were they interested in having their students working in groups? Pairs? Were they going to use scripted roles? A similar

process was then followed with the epistemic and set design cards. The cards acting as prompts for ideas they could incorporate in their design.

At the end of these design steps, each group had discussed most of the cards/concepts, some at length, and selected around fifteen cards from three dimensions for their task design. Teachers then worked to refine their design ideas and further discussed how some of these elements could be integrated (or not) as part of their final design. Finally, one teacher from each group presented their design ideas to the whole group.

IV Results

At the first task, teachers were asked to consider 'What does diversity look like in your language classroom?' Their responses included remarks, such as:

- different age groups;
- different cultural backgrounds;
- differentiation, different learning tasks, pace and encounter;
- different personalities;
- different (learning) aims;
- different L2 levels and different levels of the 4 skills (in one person).

The teachers in each group identified diversity based on one or multiple classrooms in their current teaching practice. These responses are clearly aligned with the heterogeneity principle, addressed by Alton-Lee (2003), which locates difference as a characteristic of groups and within groups. In each group discussion, we noticed that teachers held a positive attitude towards diversity when summarizing differences among students that were noticeable or somewhat hindered, their needs and learning environments/contexts. Although this first task may not have sufficiently captured teachers' understanding of diversity, it demonstrated teachers' awareness of diversity from varying perspectives and in varying contexts, rather than simply focusing on linguistic and cultural diversity. We asked teachers to keep these points in mind, and some of them noted these in writing, as they were moving forward to the next step in the design process which was supported by their use of the ACAD toolkit. The aim was to encourage their engagement in design for learning, planning learning tasks to their students that would address diversity in their classrooms.

Teachers worked with the first set of the ACAD cards, displaying various concepts and ideas associated with social design (orange cards). Our observation as well as the recordings showed that each group went through the cards, discussing the terms, and then chose five which they thought were good candidates for consideration in their later task design. The cards each group had chosen are as follows (Table 2).

The teachers then worked with the second set of ACAD cards: epistemic design (yellow cards). Again, the teachers selected five cards that they considered could be used in their task design. Their chosen cards are illustrated in Table 3. After choosing their social and epistemic cards, the teachers worked with the third and last deck of cards which displayed terms associated with set design (green cards) (see Table 4).

Table 2. Social cards chosen.

Group	Group 1	Group 2	Group 3
Social cards	facilitator	idea-generator	idea-generator
	learner	facilitator	individuals - diversity
	teacher	learner	note-taker
	teams	pairs	pairs
		teams	teams
Also considered:	Mentor		Assigned roles
	leader		script roles

Table 3. Epistemic cards chosen.

Group	Group 1	Group 2	Group 3
Idea/epistemic cards	assigned questions	assigned questions	assigned questions
	brainstorm	brainstorming	collaborative problem solving
	role/game-playing	collaborative problem solving	feedback to group
	social media	role/game-playing	worksheet/written assessment
	stimulation	worksheet	assigned questions
Also considered:			performance
			role/game-playing
			social media
			websites

Table 4. Set cards chosen.

Group	Group 1	Group 2	Group 3
Idea/epistemic cards	classroom/stimulation space	classroom	classroom
	exhibition space	exhibition space	laptops/iPads
	social media apps	stimulation space	post-its
	tablets/smart phones	laptops or tablets	social media applications
		paper	

Working as a group with the three sets of cards selected – approximately 15 cards, the teachers started to consider what they were going to propose for their students to do as a learning task. They added details incrementally and further refined the task, focusing on how various aspects of diversity might be considered and addressed. After an hour, each group presented their design ideas to the other participants in the workshop session. In what follows, we explore the design activity of each of the three groups.

Figure 2. Group 1 cards were used for the event of the Chinese New Year market (vendor sale).

Group 1

The discussion in Group 1 revolved around different ways teachers could cater for diversity. For example, when a group member mentioned that their design should include not only different ages and levels of Chinese language but also differences of all kinds (post-it notes in Figure 2) (Alton-Lee, 2003), this idea was quickly embraced by all members of the group. Unfortunately, Group 1 did not have sufficient time to follow through and complete their design, but their discussion was positive in that they verbalized the inherent complexity of 'diversity'. They also shared their own classroom experiences in multi-level classes, reflected on how diversity manifested in various ways and how the diversity of students and their needs are often multifaceted and dynamic (Ashton, 2018). Their intention was to design tasks that accounted for multifaceted differences in a Chinese language classroom.

Group 1 also showed an interesting learning curve when introduced to the three sets of ACAD cards. At first, when the social design cards were presented, teachers seemed puzzled and unsure about what they were being asked to do. Thinking about the social dimension of design could be something new or unusual for them. Two group members quietly went through the cards and said 'oh, different, hmm, different . . . different aims, personalities . . . cultural backgrounds . . .' After listening to one of the facilitators' explanations about the cards, these group members seemed to realize how the cards connected to their design work (excerpt 5:59–7:30):

A1:   invisible . . . is?
B1:   意思是不跟别人说话 . . . invisible. (trans. from Chinese: it means not talking
        to others . . . invisible.)
        [Facilitator A was explaining the cards selection requirements in Chinese]

A1:   use this . . . and not use there.
B1:   就是我们需要的这些放这里，剩下的拿走 。 (trans. from Chinese: just put the ones we need here, and of those not to use there.)
B1:   不管对错的 (trans. from Chinese: no right or wrong)
A1:   alright . . . for our design . . . later . . .

As this excerpt illustrates both teachers were exploring the cards associated with socially situated learning design for their learners, but also taking the opportunity to communicate and negotiate before settling into specific ideas (with flexibility) that would contribute to their design – their use of pronoun words like 'we' need here, 'our design' and 'no right or wrong', suggest they were searching for a shared agreement. Without explicitly demonstrating what their design was at that point, they seemed to engage in this process collegially, focusing on how their design could cater for differences of all kinds in classrooms. This excerpt illustrates a conversation guided through the social dimension of the ACAD framework, reflecting a discussion about 'invisible other' (as a term that foregrounds a member of a group that quietly watches/records key elements of a group conversation). As such, teachers were guided by the ACAD framework, which allowed them to imagine how they could socially organize their students in response to a proposed task (epistemic design), in this case by including or not an element related to divisions of labour (social design). The ACAD cards were used as prompts, suggesting ways teachers could go beyond their own experience of social processes in their design – not simply using working together with colleagues – but jointly exploring new design possibilities.

Once teachers got familiar with the idea of connecting the headline terms with their task design at hand, they started to appreciate the use of cards – the second set of cards – related to epistemic design (see Table 1). Teachers realized they were using a guiding framework to design for a learning task, and that this required consideration and inclusion of other elements (e.g. social, resources, tools). Their design work then became more fluid, and teachers started to sketch ideas using pen and paper (Figure 3). By the time Group 1 teachers got to the set design cards, they were clearly at ease and discussing confidently various concepts and tools. They were not only considering the cards they had selected, but providing a detailed description of how the headline terms helped shape their discussion, in relation to the choices for the learning design they were creating for their students. Figure 3 illustrates that Group 1 teachers considered differentiated roles for students who would practise the use of Chinese language in a shopping scene, where some would be shopkeepers and others would be customers. The teachers focused on practising language in a culturally appropriate scenario, as well as based on students' willingness and their language ability, from a team-based perspective, their approach being an example of incorporating life experiences and language understanding in a fairly familiar context for students (Anderson, 1996). Teachers' decision to assign students to differentiated roles aligned well with students' potential willingness to take part and their language ability. This discussion was centred around feasibility of carrying on the task designed for their students. They imagined what their students would possibly do or like to do to the task, hence creating different roles as having more possibilities would ensure the intended learning outcomes through the activity. This group of teachers, were guided throgh the design process to take diversity into account, to consider
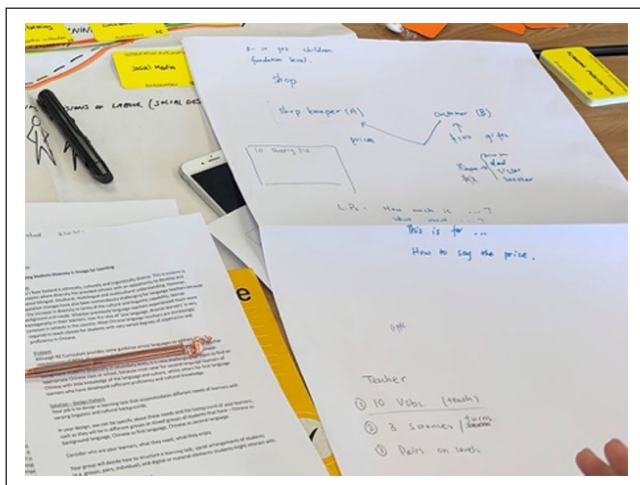
Figure 3. Mapping the design by Group 1 on a separate piece of paper.

diversity in terms of resources rather than deficiency, underlying a positive and practical approach that valued diversity. In addition, they identified themselves as both, teachers and facilitators, considering the use of other tools and resources, such as social media, simulation and mobile devices, to support learners with scaffolding at their learntime, shown in Tables 3 and 4. Teachers used paper, as shown in Figure 3, to map out what would be potentially useful for their students at learntime (as facilitators). At the bottom left of the paper, pedagogical and content knowledge were also planned, including how teachers should act based on contexts and what language structures/sentences would be introduced (as teachers), before running the task: (1) 10 verbs (teach), (2) 3 sentences/ turns, and (3) pairs on levels.

Group 2

Group 2 approached diversity in a rather comprehensive way. They seemed immersed and focused on their work. For example, they discussed the teacher's potential role as a facilitator who would stay back during the learning activity and make sure that everyone is on task (similar discussion about roles also emerged in Group 3).

 Group 2's design involved students organizing a mid-autumn festival party (Figure 4), which was planned in great detail. They specified the number of lessons, words and sentence patterns to be taught/used at different levels, the roles, types of activities, steps and so on. Their design concept envisaged a series of mini-tasks coming together as part of a broader task, where every student would be assigned a small task and all contributions would then be combined on a larger whole. As such, Group 2 focused on promoting group work where every student would contribute, and everyone's efforts would be valued. There would be three teams of students working on the event. The first team would work on performance and present legendary stories of the mid-autumn festival. The other
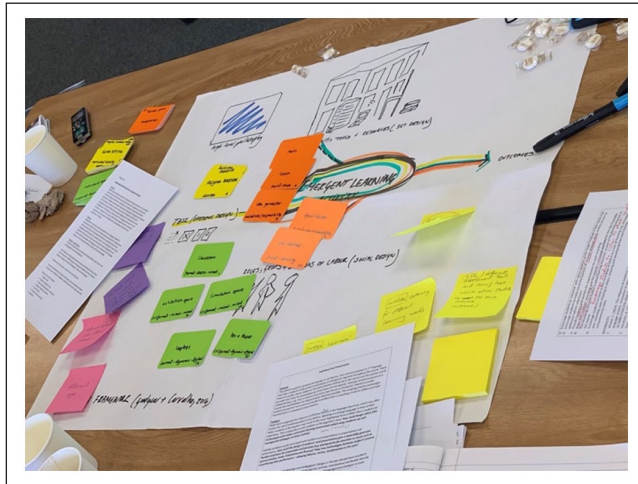
Figure 4. Group 2 cards used in the design of the mid-autumn festival event.

two teams would focus on event organization and decoration respectively. Whilst the organization team would be further divided into two sub-groups (each responsible for organizing food and drinks to be sold at the food stalls), the decoration team would involve researching themes for the celebration and artwork creation (e.g. making lanterns). There was a lot of detail in the types of tasks described, layered to accommodate diversity at levels of proficiency and task complexity. A Group 2 teacher articulated ideas for the task related to organizing food below:

> For the team who organize the food, they may have a bit higher ability as not only they are going to find out [the request from] each student who [is] ordering the food, they also need to find out how much money do they cost. Overall, how many do they need to order, for example, how many hamburgers, how [much] fried rice, etc. so their task is slightly complicated than the other groups. Because they have to work out how much do they have and are they having enough money for food ordering. If they need to collect the amount of money required from each person, they also need to work out how much do they need to ask for each person to pay.

This design suggests teachers' careful consideration of diversity in their classroom. Similarly, to Group 1, this group brought in the idea of targeting Chinese culture as embedded in a traditional celebration. But a focus for the discussion in Group 2 was how to approach diversity whilst supporting individual students with respect to their willingnekss to take on certain roles in the activity (Harbott, 2017), and by considering varying levels of proficiency among students for effective task completion. Overall, these considerations reinforced student-centredness, highlighted in ACAD (Goodyear et al., 2021).

This was a comprehensive multi-faceted design, including a feedback session as a post-event for students to discuss what they have learned. Teachers considered that the feedback session could count as a formative assessment in the format of a quiz, which was described as:

. . . at the end, we can have feedback so teachers and other students can provide feedback to themselves and peers . . . Some people can be 'spies' who can walk around and find out whether people are using [the] target language and what language structures they have been using, and giving feedback.

Group 2 collaborated well even though Teacher A2 seemed to be often leading the conversation as shown in the following recording excerpt. She would make suggestions, respond to comments and questions, and move the discussion forward:

A2:   I think for teaching, [we] might have to introduce some background knowledge and potentially useful language to prepare students for the event. We can then divide them into groups.

B2:   Realistically, we have to think about the length of the event or the task for students to complete, as part of the curriculum.

A2:   Yes, this is a very practical issue. We now have a very good design, then how are we implementing it? The first is the length of the task, how much time do we plan to give them to complete this task?

As noted by Teachers A2 and B2 in this short excerpt, their discussion included the limits in person-power, and considerations for how elements would be prioritized, and even potential changes before or at the actual learntime: students' background knowledge, useful language, length of the task, and the alignment with curriculum requirement. Informed by the ACAD framework, Teacher A2 took the lead to ask key questions related to the practicalities of their design, which resonates well with ACAD principles that these teachers-designers were carefully considering designable elements that would situate students' learning activity. Teacher A2 questions were probing the nature of elements in their design, reflecting what is typically considered in design for learning through 'moves backwards and forwards across imagined student activity, aspects of physical, the epistemic and the social, and intended learning outcomes' (Goodyear et al., 2021, p. 450).

Group 2 also explored the meanings of various concepts and ideas on the cards, particularly those they seemed not too familiar with. For example, teachers wondered what 'the next user' card meant, while others in the group provided peer support in explaining that 'This person who has used it, then it is the next person's turn? For example, the learning material, say, making sentence[s], this group has finished using it, then the next group's turn to use it . . .' Such discussion indicates that these teachers too were considering new elements in the social dimension, that could contribute or not to their emerging design ideas.

Most significantly, towards the end and after having completed their design, Group 2 revisited their earlier selected cards and tried to see if they had connected those ideas to their design, as follows:

- These cards . . . yellow, orange, green, . . . we haven't looked at the blue cards which are more theories oriented.. . . they (the cards) can connect to our tasks, right?

- Maybe 'teachers' are the facilitator, 'learners' are the students, 'teams' is to break the class into groups . . . when designing the party, we have 'pairs'? . . .
- . . . or maybe not enough time, use 'teams' better . . .

Interestingly, Group 2 was a mixed cohort of primary and secondary school teachers. Diversity was addressed in their design through mapping out separated learning contents, which could accommodate the varying proficiency levels of the students as well as the different experiences of Chinese language and culture they had. The tasks were also specially made and ranked from less complex to more complex. All of these were reflected in their final report, where two teachers presented their ideas. The first teacher was from a primary school who focused on the overall design ideas and the implementation of their design. The second was a secondary teacher who added her modified version and showed how the design could be adapted for secondary school students as follows:

> Just to clarify that this is for primary school settings. So for secondary schools, I have done similar tasks which involve 4 sessions. 1–2 sessions are about learning food items, drink items, and in preparation of a kind of food sale event. So that's the main task. During the main task, there are four different roles that students can choose from. One is the seller. The sellers are more competent speakers of Chinese and may be able to describe that 'this is very expensive . . .!', 'this is very cheap', 'this is very big' and 'this is very new', so they can promote the products. [The] second one is the buyer. They are not that competent or confident, but they can say that 'I want to buy one coke, or I want to buy two (food items).' Or 'can it be cheaper' so they are using bargaining strategies. (Group 2 teacher presented the idea for secondary students)

Group 3

Group 3 also tackled diversity as a broader theme. In Group 3's design, students would be assigned into groups with mixed abilities and roles. They would prepare and conduct a survey where the students with lower proficiency levels would work with easier questions and those with higher proficiency levels would work with more challenging questions. The teachers also pointed out that students' abilities in speaking and writing are often diverse: some might be more anxious than others in speaking rather than writing. Therefore, they would allow students to plan for an online survey instead of the original plan for a face-to-face survey at lunchtime in spoken form. Through this design teachers wanted to acknowledge that there may be different preferences, they wanted their students to feel supported in their choices, and teachers also wanted to demonstrate that they were caring and valued different ways of representing information not merely through a static approach (Ballam, 2008), such as only using spoken Chinese or having to conduct a face-to-face survey. As such, Group 3 engaged with the theme of diversity considering different measures and plans. Figure 5 illustrates their efforts in responding to the diversity of learners, with multiple post-its lined up next to cards, highlighting different issues for design. Some of these included: (1) different study patterns, (2) different proficiency levels, (3) different learning needs, (4) different approaches, (5) age, (6) ethnicity, (7) family background, and (8) media preference. Their use of these keywords suggested their pedagogical intentions were to widely accommodate diversity in their classrooms.
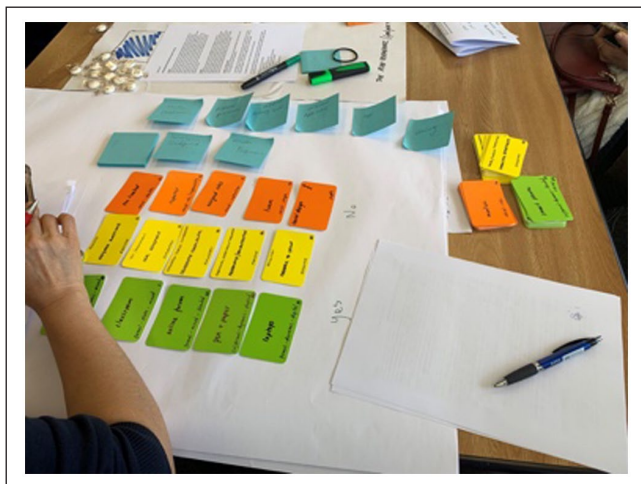
Figure 5. Group 3 cards were used for the design of the students' questionnaire and interview task.

There were also several moments when teachers were seeking peer support in understanding or clarifying some of the meaning of cards/concepts:

A3:   What is [the] 'mentee'?
B3:   People who are mentored.
         . . .
A3:   What is [the] 'peacemaker'?
B3:   Old people, solve conflicts, something like that.

Such types of interactions often occurred between two members of this group who were particularly active in the design process. One of the teachers (B3) was a L1 English speaker and an in-service ESOL secondary school teacher, sometimes working in assisting Chinese teachers in the Chinese language classroom of her school. She (B3) seemed to play a gatekeeper role in this group's dynamic, often mediating the design process while the other teacher (A3) sought clarity about unfamiliar concepts. Such interactions suggested that these teachers were learning through conversations amongst themselves, and perhaps through their interactions with the workshop facilitators. This *kaupapa* approach centred around this group's design process guided by the ACAD design principles, as well as supported their imagination of students taking different roles and elements of the task designed, and gaining benefit from undertaking the task at learntime. Through working through the ACAD cards, this group of teachers were also exploring and learning new design language and concepts along the way. For instance, at early stage of their design, with the support of the workshop facilitators, they discussed the difference between 'assigned roles' and 'scripted roles' in which they highlighted what they thought in design at the time as well as attempted to imagine how their design could

be implemented by their students. One of them particularly expressed her concern about 'choice' for students than the choice pre-determined by teachers-as-designers. This evidenced the ACAD toolkit supported teachers in breaking down the complexity of design thinking into practice at hand – that allowed teachers to feel relatable to their own practice and to understand how they can co-organize effective, joyful and meaningful learning experience with their students.

Group 3 also discussed bringing in students' ethnic heritages and cultures into the tasks designed, as presented by the ESOL teacher (B3):

A3: It's a big task – would be lasting 3 weeks.
B3: You can bring culture in – aboriginal culture – this culture and their cultures together when students are from their English cultures. The diversity of their learning. It should tailor to them . . .

What teacher B3 said above reflected her awareness of how culturally diverse the classrooms have become in Aotearoa/NZ. It served to remind her group, and us, that addressing those cultures, particularly the aboriginal culture, should become part of everyday learning design. Their conversation also indicated the intercultural approach that has been highlighted in the *Learning Languages* (Ministry of Education, 2007), as well as elaborated in the Aotearoa/NZ context (Newton et al., 2010) – that two ways of intercultural language teaching in response to relationship between cultures and languages are (1) 'through seeking to connect learners to the target language culture, and thereby to facilitate learning opportunities through interaction and cultural experience' and (2) 'by treating these relationships as topics to be explored and learnt about as part of language learning' (p. 73). In this case, B3 used 'bring culture in', 'their cultures' and 'tailor' to specify that the purpose of this design was to address diversity of learning. She acknowledged the linguistic landscape of Aotearoa/NZ, which could suggest that she values the need to reflect students' cultural and linguistic backgrounds, ethnic heritages and intend to bridge them through this task.

V Discussion

In line with the research aims and questions, we discuss our study in relation to our key findings in turn.

1 Acknowledging diversity in Chinese language classrooms

Our findings suggest that the teachers in the workshop were acutely aware of diversity in their classrooms; they acknowledged its complexity through identifying difference as a characteristic (Alton-Lee, 2003). Although diversity seems to be a challenge in actual design and teaching, the teachers considered its heterogeneity with respect, for example in Group 3, to the value of reflecting the diversity of different cultures, ethnic heritages, and languages into the learning design for their students. Not surprisingly though, some teachers seemed overwhelmed as to how to deal with the complexity inherently associated with diversity. The workshop provided teachers with the opportunity to focus on the

Figure 6. Teachers' inspirational notes for the workshop.

issue, and to try out designs that reflected the multifaceted and dynamic nature of 'diversity', which has been lacking in the literature (Orton & Scrimgeour, 2019). Significantly, they extended the exploration and presented their understanding of learner diversity with eight perspectives (see Group 3, Figure 5). By the end of the workshop, teachers shared their gained inspirations on post-it notes (see Figure 6), which reflects their developing understanding of diversity and ability to adapt knowledge and awareness of diversity to the Aotearoa/NZ context, for instance, when referring to:

- 'the difference between mechanical, meaningful and communicative teaching – diversity in Chinese classroom';
- 'culturally responsive in classroom';
- 'lots of practical ideas especially how to create meaningful tasks to cater for the diversity of a classroom';
- 'incorporate Mandarin into Māori culture'.

Teachers seemed to appreciate the workshop providing a *kaupapa* (a set of values and principles) opportunity that allowed them to 'experience' and 'share' in a 'fun' way with fellow teachers from different schools and contexts. Although this was a one-day PD workshop, it reinforced the need for teachers to recognize diversity with respect and to hold a supportive view, in both design and teaching practice.

2 Raising awareness of teachers-as-designers in designing for diversity

Our goal of raising the awareness of language teachers about their roles in design for learning in general, and how to practically engage in a design with a purpose – in this case, a learning design that would plan tasks that cater for diversity. Researchers have argued for the notion of 'teaching as a design science' and for re-positioning the role of teachers, that is, to seeing 'teachers-as-designers' (Colpaert, 2010; Laurillard, 2012; Mor & Mogilevsky, 2013; Sun, 2021). One such study by Kuure et al. (2016) explores how to facilitate a switching perspective, from teacher-trainees to teachers, and to designers. Their study demonstrates that as time goes by, teacher-trainees were able to envisage changes in the way they would see the affordances of technologies in relation to language learning in their professional roles and practices. Despite these researchers' efforts and various kinds of support given to the teacher-trainees, the study concludes that the trainees were not fully able to see their role as designers in the future. Similarly, our findings did not provide strong evidence that the teachers clearly recognized their role as teacher-designers. Instead, most considered themselves as teachers and facilitators. The two terms – facilitator and designer – to us are compatible, and just reflect different aspects of the role. Design, or the planning of what students will do, happens in advance. At learntime teachers facilitate students' learning activity, and this moment often involves co-creation and co-configuration of what has been designed in advance. Smith (2017) posits that the role of the facilitator is essential in operationalizing the processes of learning. It is about supporting students during the learntime.

During our workshop, while the teachers fully engaged in collaborative design activity, there was not a lot of discussion about their roles. Several brief commentaries on the design they presented, however, appear to suggest evidence of such emerging awareness. For instance, Group 2 seemed to implicitly acknowledge the role of design and the importance of creating a well-designed learning task – that is, providing detailed specifications about the task and its implementation. They also discussed how a task might fit into the syllabus of a school term, as part of a sequential design in the overall curriculum design, as the following quotes demonstrate:

> . . . as such, everything needing to be taught is included: drinks, foods, numbers, etc. There is also the learning of math in it . . . (we have also) incorporated the teaching of math. We could say the numbers in Chinese in our maths lessons.

> the learning for the whole semester, everything, are linked together, including learning the words for colours!

Instead of seeing themselves as designers, Group 3 and Group 2 referred to themselves as facilitators. They consistently showed great interest in designing and providing

'meticulous' details, including task facilitation details in their task design. To us, this suggests a 'designer at work' although the teachers might not have been entirely aware of this. One such example was when Group 3 reported their design at the end of the workshop, adding design details about assigning students into teams and being very decisive on the oral assessment and so on. Similarly, Group 2 connected each step of their design to the cards, writing and drawing to clarify various aspects of their design, and yet none of the teachers explicitly took the 'hat of a designer'. In sum, all three groups seemingly acknowledged the importance of design for effective teaching and learning without being fully aware of their role as 'teacher-designers' themselves, even though they held a shared view of being a 'facilitator' when implementing the tasks they designed. Figure 6 provides further evidence on how teachers understood their role, for example, as one teacher noted 'Teacher is a facilitator and teacher.'

This is not surprising; and we acknowledge that one cannot expect to change people's perceptions in one workshop. Our findings highlight the importance of continued support for language teachers in design for learning, by way of exploring current theoretical approaches and frameworks in education (e.g. helping to develop awareness about new perceived roles, such as 'designers' and 'facilitators') and introducing practical procedures and skills (e.g. using design toolkits) that may support teachers in reflecting about learning design.

3 Fostering an understanding of task design that connects to other dimensions of design: Social design and set design

The workshop was also aimed to further teachers' understanding of task design, in relation to two other very important learning design dimensions – social design and set design. We believe this aim was successfully achieved. For example, L2 teachers often, in implementing TBLT, focus on creating interesting learning tasks and providing instructions about what their students will do in a given task (Ellis et al., 2020), but other dimensions of learning design are seldom explored. In this workshop, we introduced the ACAD framework which provided both conceptual analytical tools and a practical toolkit and steps for teachers to address the social and material dimensions of the educational design (Yeoman & Carvalho, 2019). Teachers were offered an opportunity to see beyond their ability to create only epistemic tasks. Epistemic tasks have always been teachers' primary focus and their most experienced sphere of design, in that they focus on the relevant domain knowledge and the different ways of structuring such knowledge.

Nevertheless, our findings indicated that all three groups responded well to social and set design. Throughout, teachers explicitly referred to these 'new' design concepts and ideas. They seemed to be already familiar with many of those concepts/ideas and could quickly decide whether any particular item/idea should be incorporated into their design. Those cards/ideas which they were not so familiar with, often became triggers for further discussions, allowing teachers to explore unknown concepts and ideas (see Tables 2–4). As such, the workshop seemed to successfully support teachers to (1) align epistemic design with set and social design, (2) experiment different possible elements for their design work, and (3) initiate and engage in collaborative design discussions (Yeoman & Carvalho, 2019). It is worth noting that the success was, as expected, similar to those in previous workshops (Yeoman & Carvalho, 2019).

The findings also highlight that there was a considerable number of social design elements that emerged. In their design work, teachers included different roles (e.g. leadership, mentoring, facilitating), divisions of labour, responsibilities, working relationships and so on. A group also wanted to involve parents. There were other social references in their designs, e.g. 'feedback to groups' (chosen by two groups), having 'spies', in their own words, 'who can walk around and find out whether people are using [the] target language and what language structures they have been using, and giving feedback'. These were interesting use of social elements in design work, which resemble real-life relationships and structures (Sun & Goodyear, 2020).

VI Conclusions

Language teachers constantly face new demands in contemporary classrooms, where the notion of diversity, includes the diversity of learners, their needs and environments/contexts, which all can be accommodated through design for learning. In light of *kaupapa*, with a focus on working together to find out solutions (Ministry of Education, 2007), our workshop provided Chinese language teachers with a professional development opportunity to work with their peers, and learn from each other experiences in different schools and contexts. Teachers were encouraged to identify multifaceted features of diversity (Conway & Richards, 2017), considering 'difference as a characteristic', though not merely about linguistically and culturally diversity (Orton & Scrimgeour, 2019), but instead acknowledging diversity with respect and maintaining a supportive view as to not let students feel unsupported, discriminated, or abandoned (Alton-Lee, 2003). Taking into account Indigenous perspectives and an intercultural approach (Newton et al., 2010), the teachers tailored their learning designs, using task design approaches, e.g. TBLT, to accommodate students from a culturally responsive and appropriate perspective. As some teachers noted in the inspirational wall (Figure 6), they were supported to acknowledge diversity and meaningful language education for young learners with 'lots of practical ideas especially [on] how to create meaningful tasks to cater for the diversity of a classroom'.

Teachers are required to adapt to a dual role – as 'designers' and 'facilitators' – in order to successfully meet new challenges and demands in contemporary teaching and learning. Although our workshop participants might not have fully perceived their 'designer' roles, their design collaboration revealed, nonetheless, that they have acted as designers, not only when considering task design approaches, e.g. TBLT, but more importantly when connecting, wittingly or unwittingly, the design tasks on hand with multiple elements of set and social design. They carefully considered how each of the design elements might influence what students would do and how they could help optimize learning.

Guided by the ACAD framework (Goodyear & Carvalho, 2014; Goodyear et al., 2021), this workshop foregrounds a new angle for TBLT, going beyond the epistemic sphere of 'tasks' and weaving tasks with explicit material and social fabrics. It is vital as TBLT resonates well with the design for learning concept that task design is different from process or from outcome, but requires spontaneous communications of meaning (Breen, 1989). Samuda's (2015) multidimensional workplan mapping out a pedagogical task also reflected the new thinking and development of TBLT – that there are inevitable

changes and gaps between task-as-workplan and task-in-action (or task-in-process). She reminisced us to look at a task as 'a succession of workplans that come into play in different ways at different points across a lesson or teaching cycle' (p. 218). In addition to that, TBLT may also take into account the physical and social situatedness of learning, i.e. acknowledging that social and material dimensions also contribute to the re-conception and re-design of contemporary learning environments with a focus on learner-centred pedagogies. In working with the ACAD cards, the Chinese language teachers were challenged with a unique opportunity to experiment with going beyond epistemic design. They considered and successfully incorporated social and material elements into the learning design for their diverse students. The ways teachers explored and created ideas collaboratively, as well as the ways they supported each other, reflects a community of practice at work. Overall, the workshop encouraged processes of collaborative knowledge building. As Yeoman and Carvalho (2019) note, 'successful collaborations of this nature depend on the materialization and subsequent spatial orientation of information and ideas relevant to the task, and an ability to communicate and work with others to identify potential design solutions and converge on a single "good" as opposed to "correct" solution' (p. 22).

We acknowledge there are limitations in the study as data generated from one PD workshop with Chinese language teachers in NZ schools cannot be generalized. However, this work provides useful insights on how a structured design framework provides lenses to support language teachers in designing for diversity. Diversity in a language classroom is multifaceted, complex and beyond the norm of linguistic and cultural diversity (Orton & Scrimgeour, 2019). Our research provides a starting point for constructing comprehensive understandings of diversity, not only by building connections between TBLT and the idea of design for learning but also by showing how theory, design and practice can inform teacher professional development. Future research supporting language teachers in addressing diversity through consistent continued professional development (CPD) workshops shall be considered, specifically integrating design for learning concepts. Understanding the role of teachers-as-designers requires CPD that scaffolds the design process and helps teachers generate ideas that adapt their teaching practice to multicultural contexts. The ACAD toolkit can be further explored and applied to tailor the needs of language teachers, gained from the teachers' final reports and commentaries. The social design is one of the dimensions of the ACAD framework, and a dimension of design that is particularly relevant to researchers and practitioners interested in the (pluri)cultural repertoires where Aotearoa/NZ is situated.

Funding

ORCID iD

Grace Y. Qi 🆔 https://orcid.org/0000-0002-5757-4203

References

Alton-Lee, A. (2003). *Quality teaching for diverse students in schooling: Best evidence synthesis*. Education Counts. Available at: https://www.educationcounts.govt.nz/publications/series/2515/5959 (accessed March 2023).

Anderson, T. (1996). The national standards for arts education: A (multi)cultural assessment. *Studies in Art Education*, *38*, 55–60.

Ashton, K. (2018). Exploring teacher views of multi-level language classes in New Zealand secondary schools. *Teaching and Teacher Education*, *69*, 104–118.

Ashton, K. (2021). Novice teacher agency in the multi-level language classroom. *Language, Culture and Curriculum*, *34*, 242–256.

Auckland Languages Strategy Working Group. (2018). *Strategy for languages in education in Aotearoa New Zealand 2019–2033*. Auckland Languages Strategy Working Group.

Badenhorst, G., & East, M. (2015). Hybrid learning in a multi-level German class: Making the most of the reality of combined classes. *The New Zealand Language Teacher*, *41*, 64–77.

Ballam, N. (2008). On children transitioning to new cultural and linguistic settings: 'When in Rome . . . it's okay to be a tourist'. *Kairaranga*, *9*, 32–35. Available at: https://files.eric.ed.gov/fulltext/EJ908173.pdf (accessed March 2023).

Beetham, H., & Sharpe, R. (Eds.). (2013). *Rethinking pedagogy for a digital age: Designing for 21st century learning*. Routledge.

Bishop, R. (2019). *Teaching to the North-East: Relationship-based learning in practice*. New Zealand Council for Educational Research Press.

Bishop, R., & Berryman, M. (2006). *Culture speaks: Cultural relationships and classroom learning*. Huia Press.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*, 77–101.

Breen, M. (1989). The evaluation cycle for language learning tasks. In Johnson, R.K. (Ed.), *The second language curriculum* (pp. 187–206). Cambridge University Press.

Bromell, D. (2008). *Ethnicity, identity and public policy: Critical perspectives on multiculturalism*. Institute of Policy Studies.

Carr, J. (2005). More thoughts on the usefulness of tasks in the multi-level language classroom. *Babel*, *39*, 31–38.

Cioè-Peña, M. (2022). The master's tools will never dismantle the master's school: Interrogating settler colonial logics in language education. *Annual Review of Applied Linguistics*, *42*, 25–33.

Colpaert, J. (2010). Elicitation of language learners' personal goals as design concepts. *Innovation in Language Learning and Teaching*, *4*, 259–274.

Conner, L.N. (2013). Meeting the needs of diverse learners in New Zealand. *Preventing School Failure: Alternative Education for Children and Youth*, *57*, 157–161.

Conway, C., & Richards, H. (2017). 'We can all count to 10 but we do it in different ways': Learner diversity in the language classroom. *Babel*, *51*, 26–39.

Conway, C., Richards, H., Harvey, S., & Roskvist, A. (2010). Teacher provision of opportunities for learners to develop language knowledge and cultural knowledge. *Asia Pacific Journal of Education*, *30*, 449–462.

Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage. Available at: https://books.google.co.nz/books?id=nSVxmN2KWeYC (accessed March 2023).

East, M. (2021). *Foundational principles of task-based language teaching*. Routledge.

Ellis, R. (2017). Task-based language teaching. In Loewen, S., & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 108–125). Routledge.

Ellis, R., Skehan, P., Li, S., Shintani, N., & Lambert, C. (2020). *Task-based language teaching: Theory and practice*. Cambridge University Press.

Fickel, L.H., Angel, M.N., Macfarlane, S., & Macfarlane, A.H. (2017). Humanising secondary school contexts: Learning from Aotearoa New Zealand and Peru. *Knowledge Cultures*, *5*, 45–61.

Gass, S.M., & Mackey, A. (2006). Input, interaction and output: An overview. *Australian Review of Applied Linguistics*, *19*, 3–17.

Ghosh, G. (2015). Introduction. In Ghosh, G., & J. Leckie (Eds.), *Asians and the new multiculturalism in Aotearoa New Zealand* (pp. 7–36). Otago University Press.

Goodyear, P., & Carvalho, L. (2014). Framing the analysis of learning network architectures. In Carvalho, L., & P. Goodyear (Eds.), *The architecture of productive learning networks* (pp. 48–70). Routledge.

Goodyear, P., Carvalho, L., & Yeoman, P. (2021). Activity-centred analysis and design (ACAD): Core purposes, distinctive qualities and current developments. *Education Technology Research and Development*, *69*, 445–464.

Goodyear, P., & Dimitriadis, Y. (2013). In medias res: Reframing design for learning. *Research In Learning Technology*, *21*, 1–13.

Harbott, N. (2017). Educating for diversity in New Zealand: Considerations of current practices and possible pathways? *Journal of Initial Teacher Inquiry*, *3*, 20–23.

Harvey, S. (2013). Revisiting the idea of a national languages policy for New Zealand: How relevant are the issues today? *The TESOLANZ Journal*, *21*, 1–13.

Harvey, S., Conway, C., Richards, H., & Roskvist, A. (2010). *A report to the Ministry of Education: Evaluation of Teacher Professional Development Languages (TPDL) in Years 7–10 and the impact on language learning opportunities and outcomes for students*. Ministry of Education. Available at: https://www.educationcounts.govt.nz/__data/assets/pdf_file/0017/75023/TPDLEvaluation-Report22Apr2010d.pdf (accessed March 2023).

Hetland, L., Winner, E., Veenema, S., & Sheridan, K.M. (2013). *Studio thinking 2*. Teachers College Press.

Kuure, L., Molin-Juustila, T., Keisanen, T., et al. (2016). Switching perspectives: From a language teacher to a designer of language learning with new technologies. *Computer Assisted Language Learning*, *29*, 925–941.

Larzén-Östermark, E. (2008). The intercultural dimension in EFL-Teaching: A study of conceptions among Finland-Swedish comprehensive school teachers. *Scandinavian Journal of Educational Research*, *52*, 527–547.

Laurillard, D. (2012). *Teaching as a design science: Building pedagogical patterns for learning and technology*. Routledge.

Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation*. Cambridge University Press.

Law, N. (2017). *Education professionals need a language for learning design*. Dean's lecture series, faculty of education and social work, The University of Sydney.

Law, N., Li, L., Herrera, L.F., Chan, A., & Pong, T.-C. (2017). A pattern language based learning design studio for an analytics informed inter-professional design community. *Interaction Design and Architecture(s)*, *33*, 92–112.

Machart, R., Clark, J.B., & Dervin, F. (2014). Perceived differences, exhibited 'diversity' and overlooked individualities. *IJE4D Journal*, *3*, 1–6. Available at: https://blogs.helsinki.fi/ije4d-journal/files/2015/01/IJE4D-Vol.-3-editorial.pdf (accessed March 2023).

Mackey, A. (2012). *Input, interaction, and corrective feedback in L2 learning*. Oxford University Press.

Mahmoodi-Shahrebabaki, M. (2017). The effect of perfectionism on burnout among English language teachers: The mediating role of anxiety. *Teachers and Teaching*, *23*, 91–105.

May, S. (2002). Accommodating multiculturalism and biculturalism in Aotearoa New Zealand: Implications for language education. *Inaugural Professorial Lecture, University of Waikato*. Available at: https://researchcommons.waikato.ac.nz/bitstream/handle/10289/6256/May%20 Accomodating.pdf?sequence=1&isAllowed=y (accessed March 2023).

Ministry of Education. (2007). *The New Zealand curriculum 2007*. Learning Media.

Ministry of Education. (2014a). *The New Zealand curriculum online: Learning languages - Achievement standards*. Ministry of Education. Available at: https://nzcurriculum.tki.org.nz/ The-New-Zealand-Curriculum/Learning-languages/Achievement-objectives (accessed March 2023).

Ministry of Education. (2014b). *The New Zealand curriculum online: Learning languages - Why study a language?* Ministry of Education. Available at: https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum/Learning-languages/Why-study-a-language (accessed March 2023).

Ministry of Education. (2018). *International education strategy 2018–2030*. Ministry of Education. Available at: https://enz.govt.nz/assets/Uploads/International-Education-Strategy-2018-2030. pdf (accessed March 2023).

Mor, Y., & Mogilevsky, O. (2013). The learning design studio: Collaborative design inquiry as teachers' professional development. *Research In Learning Technology*, *21*, 220–254.

Musgrave, S., & Bradshaw, J. (2014). Language and social inclusion: Unexplored aspects of intercultural communication. *Australian Review of Applied Linguistics*, *37*, 198–212.

Newton, J., Yates, E., Shearn, S., & Nowitzki, W. (2010). *Intercultural communicative language teaching: Implications for effective teaching and learning*. Report to the Ministry of Education. Available at: https://www.educationcounts.govt.nz/publications/schooling2/ workforce/98352 (accessed March 2023).

Oranje, J., & Smith, L.F. (2018). Language teacher cognitions and intercultural language teaching: The New Zealand perspective. *Language Teaching Research*, *22*, 310–329.

Orton, J. (2008). *The current state of Chinese language education in Australian schools*. 3rd edition. The University of Melbourne. Available at: https://education.unimelb.edu.au/__data/ assets/pdf_file/0008/3093326/ChinaReport.pdf (accessed March 2023).

Orton, J. (2016). Issues in Chinese language teaching in Australian schools. *Chinese Education and Society*, *49*, 369–375.

Orton, J., & Scrimgeour, A. (2019). *Teaching Chinese as a second language: The way of the learner*. Routledge.

Qi, G.Y. (2021). Early Mandarin Chinese learning and language-in-education policy and planning in Oceania. In Zein, S., & M.R. Coady (Eds.), *Early language learning policy in the 21st century: An international perspective* (pp. 85–107). Springer.

Richards, J. (2006). *Pedagogy and practice in second language teaching*. Cambridge University Press.

Rienties, B., Lewis, T., McFarlane, R., Nguyen, Q., & Toetenel, L. (2018). Analytics in online and offline language learning environments: The role of learning design to understand student online engagement. *Computer Assisted Language Learning*, *31*, 273–293.

Samuda, V. (2015). Task, design, and the architecture of pedagogical spaces. In Bygate, M. (Ed.), *Domains and directions in the development of TBLT: A decade of plenaries from the international conference* (pp. 271–302). John Benjamins.

Sercu, L., Bandura, E., Castro, P., et al. (2005). *Foreign language teachers and intercultural competence: An international investigation*. Multilingual Matters.

Smith, K. (2017). *Teachers as self-directed learners: Active positioning through professional learning*. Springer.

Spoonley, P. (2015). New diversity, old anxieties in New Zealand: The complex identity politics and engagement of a settler society. *Ethnic and Racial Studies*, *38*, 650–661.

Sun, S.Y.H. (2021). Using patterns-based learning design for CALL tasks. *Computer Assisted Language Learning*, *34*, 1061–1084.

Sun, S.Y.H., & Goodyear, P. (2020). Social co-configuration in online language learning. *Australasian Journal of Educational Technology*, *36*, 13–26.

Suprayogi, M.N., Valcke, M., & Godwin, R. (2017). Teachers and their implementation of differentiated instruction in the classroom. *Teaching and Teacher Education*, *67*, 291–301.

Swain, M. (2005). Legislation by hypothesis: The case of task-based instruction. *Applied Linguistics*, *26*, 376–401.

Teaching Council of Aotearoa / New Zealand. (2019). *Standards for the teaching profession: Our code, our standards*. Teaching Council of Aotearoa / New Zealand. Available at: https://teachingcouncil.nz/assets/Files/Code-and-Standards/Standards-for-the-Teaching-Profession-English-two-pages.pdf (accessed March 2023).

Thorius, K.A.K., & Waitoller, F.R. (2017). Strategic coalitions against exclusion at the intersection of race and disability: A rejoinder. *Harvard Educational Review*, *87*, 251–257.

Yeoman, P., & Carvalho, L. (2019). Moving between material and conceptual structure: Developing a card-based method to support design for learning. *Design Studies*, *64*, 64–89.

Yeoman, P., Carvalho, L., Castañeda, L., & Adell, J. (2020). Cross-cultural adaptation and user-experience validation of the ACAD toolkit. In Hansen, S.B., Hansen, J.J., Dohn, N.B., de Laat, M., & Ryberg, T. (Eds.), *Proceedings of the 12th International Conference on Networked Learning* (pp. 38–41). Networked Learning.

Young, T.J., & Sachdev, I. (2011). Intercultural communicative competence: Exploring English language teachers' beliefs and practices. *Language Awareness*, *20*, 81–98.

Ziegler, N. (2016). Taking technology to task: Technology-mediated TBLT, performance, and production. *Annual Review of Applied Linguistics*, *36*, 136–163.