

# What do they do all day?

## *Exploring the complexity of early childhood teachers' work*

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In this article, we discuss findings from a study of how 22 teachers in kindergartens and education and care centres in Aotearoa New Zealand spent their time at work. The teachers filled in time-use diaries, writing down details of what they did at different times over a whole working day. The diary entries were coded using a taxonomy developed by Charles Sturt University and Queensland University of Technology researchers in Australia, identifying the types of activities and length of time in which teachers were engaged in them. The teachers discussed the codings and recommended some new categories and some adaptations to fit the Aotearoa New Zealand context. The summary findings give a picture of the percent of time teachers spent in each domain; “hot spots” when a large number of activities were taking place; and times of day when different activities were likely to occur. The findings show that early childhood teachers' work is complex and varied. In the conclusion we comment on the need to support this complexity through specific policy measures in the *Strategic Plan for Early Learning* and look forward to a large-scale and comparative study of teachers' work.

### Introduction

The focus of this article is on the amendment and validation within the context of Aotearoa New Zealand early childhood education (ECE) settings of a taxonomy of teachers' work that was developed by researchers from Charles Sturt University and Queensland University of Technology for use in Australian ECE settings (Wong et al., 2015). The background is a strategic research and publication partnership established in 2015 between the Early Years Research Centre, University of Waikato, and the Research Institute for Professional Practice, Learning and Education, Charles Sturt University, that brought together four professors from Charles Sturt University with nine members of the Early Years Research Centre to plan specific research projects and associated publications. One of these projects, discussed in this article, builds on Charles Sturt University's *Early childhood educators' work* study which is examining a) the nature and complexity

of teachers/educators' work, and b) the contexts in which teachers work. The overall aim is to make visible the work of exemplary teachers/educators by identifying the work skills and knowledge of teachers/educators across qualification levels and the organisational, professional, and relational dimensions in the context of high-quality centres and teachers/educators whose work is considered exemplary.

The work undertaken by early childhood teachers/educators is varied and highly demanding, but is often not understood well outside of the early childhood sector itself (Wong et al., 2015). A view that ECE requires only a caring disposition is a main reason for the undervaluing of the ECE workforce. In Aotearoa New Zealand, census data sets are gathered by the Ministry of Education about demographic features of the ECE workforce (e.g., qualification status, ethnic group, full-time/part-time status, gender), some studies have investigated the quality of

ECE environments (Meade, Robinson, Stuart, Williamson, & Carroll-Lind, 2012; Mitchell, Meagher Lundberg, Mara, Cubey, & Whitford, 2011; Mitchell, Royal Tangaere, Mara, & Wylie, 2006), and many qualitative studies funded through Teaching and Learning Research Initiative (TLRI) and Centre of Innovation grants have focused on aspects of ECE pedagogy. One study (Meade et al., 2012) examined the patterns and purposes of teachers' work when there were different percentages of qualified teachers. However, this study was undertaken in only 10 education and care centres and the results could not be generalised. There has been little large-scale research internationally, and none in Aotearoa New Zealand, about how teachers actually spend their time during the day. Such research would be useful in making visible the complexities of teachers' work, and could be used to explore further dimensions, such as how the nature of work varies according to qualification levels, and environmental and relational factors that support teachers.

To address the research gap in relation to Australia, researchers from Charles Sturt University and the University of Queensland used a panel of experts and educators' time-use diaries to develop a taxonomy of teachers/educators' work (Wong et al., 2015). These researchers then developed the taxonomy as an app for smartphone data collection, using Random Time Sampling (RTS) to accurately assess participants' actual time use. The RTS Time Use Diary (TUD) app electronically prompts educators to recall their activities for the previous 60 minutes, selecting from a set of pre-coded categories of tasks (e.g., intentional teaching, routine care/transition, emotional support). Each category is defined by specific activities (e.g., intentional teaching subclasses > problem solving, literacy, numeracy; routine care subclasses > hygiene, sleep/rest; emotional support subclasses > mediate conflict, comfort).

The app enables educators to record a sequence of activities, and multiple activities completed at the same time. The app also gathers subjective ratings of work demands for each reported hour. Each entry takes between 2 and 5 minutes to complete. Since the data are pre-coded and data processing is automated, analysis is very quick and cost effective. The Australian researchers are now using the app in a large-scale Australian Research Council (ARC)-funded study of educators' work in exemplary ECE settings in Australia, and to investigate

the organisational, relational, and professional dimensions of exemplary practice.

### Methods for amending and validating the Australian taxonomy of teachers' work in the different national context of New Zealand

Our research aimed to ascertain whether the classification of activities found in Australian ECE settings apply in the different national context of Aotearoa New Zealand and what, if any, modifications to the taxonomy are needed for this context. Three research questions guided our study.

1. What defines the everyday work of teachers in high-quality early childhood centres in Aotearoa New Zealand?
2. How do the pre-coded definitions and classifications of educators' work developed by the Charles Sturt University for their Random Time Sampling Time Use Diary (RTSTUD) smartphone "app" compare with the definitions and classifications developed with teachers in Aotearoa New Zealand?
3. How does the everyday work of teachers/educators in high-quality early childhood centres in Aotearoa New Zealand compare with the everyday work of teachers/educators in high-quality early childhood centres in Australia?

This article discusses the first two research questions. The third question will require a deeper inquiry into definitions and categories of "high quality" in each setting. We started by using the same process as was followed by the Australian researchers (i.e., the generation of time-use diaries by a sample of registered teachers in kindergartens and education and care centres).

Following research ethics approval from the University of Waikato Faculty of Education Research Ethics Committee, 22 qualified and registered teachers who worked directly with children were recruited from seven early childhood settings in the Waikato, Wellington, and Bay of Plenty regions. For the purposes of this study, we considered ECE settings that all had very good Education Review Office (ERO) reviews and were recommended by their management as "high quality". Table 1 sets out information about the settings.

All 22 teachers who filled in the time-use diary also completed a questionnaire about their teaching position, qualifications, teacher registration status and years of teaching experience, and demographic information. Most (17) were experienced teachers with over 5 years' teaching experience. Three teachers had less than 2 years' teaching experience and two teachers had between 2 and 5 years. All were qualified registered teachers, except one who did not specify her qualification or registration status. Eight held positions of responsibility as head teacher or "in charge"; 14 were teachers. There were 21 females and one male. Fourteen described themselves as Pākehā or European or New Zealand European. One described himself as Māori. Six described themselves as Pākehā/Dutch, Welsh, NZ European and Samoan, Chinese, NZ Māori/European, Tongan, respectively. Others did not specify their ethnicity. Ages were fairly evenly spread across a range from under 25 to 64.

Teacher participants filled in a template recording sheet that was used in the initial Australian study (Wong et al., 2015) to provide written descriptions of the activities the teacher had undertaken in the preceding hour (see Figure 1). In using this template, each teacher

TABLE 1. CENTRE TYPE, LOCATION, AGES OF CHILDREN, AND NUMBER OF TEACHERS

Centre type	Location	Ages of children in groups	Number of teachers
Education and care	Waikato	Three groups: Up to 2 years, 2 years to 3 years 6 months, 3 years to 6 years	4
Kindergarten	Waikato	3 years 6 months to 5 years	3
Education and care	Waikato	5 months to 5 years	3
Education and care	Waikato	Three groups: Infants, Toddlers, Young children	5
Kindergarten	Wellington	2 years to 5 years	2
Kindergarten	Bay of Plenty	2 years to 5 years	3
Kindergarten	Bay of Plenty	2 years to 5 years	2

was asked to record the time the activity commenced and finished; a description of the task/activity in as much detail as reasonable; the context of the activity, that is, with whom the activity occurred (children or adults) and where it occurred (inside, room or outside, space). Participants returned their completed time use diary to the researcher.

Data from the time-use diaries were coded, based on the domains and subclasses in the Australian taxonomy. Initially, all four members of the research team with Frances Press from Charles Sturt University coded a sample of time-use diaries and then discussed and agreed codings. Then two members of the research team coded the same time-use

diaries independently, and then checked their codings with each other. Inter-rater reliability was calculated as a percentage of the number of exact matches divided by total matches and mismatches for each diary. Through this process we achieved over 80% agreement, with any items that were not agreed resolved through whole-group discussion.

In a second stage, we took examples of the time-use diaries back to teacher participants in focus group meetings with the teachers, for a presentation on the domains and subclasses and to give feedback. Feedback from the focus groups was used to refine the taxonomy. Specific modifications were made to some definitions and examples, and to reflect Aotearoa New Zealand context. The most significant changes were the addition of three new categories under the domain "Intentional teaching with children", namely 2.10 Sociodramatic play (symbolic, pretend, dramatic play); 2.12 Bicultural practices (karakia, waiata, tikanga, te reo Māori); 2.13 Socialising (Community building, facilitating children's interpersonal relationships, collective responsibility). We conjecture that the need for these changes reflects different curriculum and cultural contexts in Australia and Aotearoa New Zealand.

Teachers in the focus groups said they found the time-use diaries were time consuming to complete and they thought the use of a smartphone app would be quicker and easier to use, and enable teachers themselves to determine categories. They also felt the high levels of skill and complexity of teachers' work were affirmed by the exercise.

We then followed a similar process of analysis to that used by the Australian research team to analyse individual coded diary entries. This was done by transferring entries to a daily score sheet and recording the number of different domains, the number of different subclass activities, and the estimated number of minutes spent per subclass. Time estimates were derived by dividing the total number of minutes for the entry by the number of different activities. This enabled us to calculate the percentage of time participants engaged in each domain, to identify "hot spot times" that were more complex than others due to a larger number of activities occurring, and to examine the times of day where activities were more or less likely to occur.

Results presented in Figure 2 show intentional teaching and routine care to be the domains in which participants spent the highest percentage of their teaching time,

**Appendix 1. Time Use Diary template**  
 We are interested in the many activities that comprise the work of being an early childhood teacher/educator. We are asking you to record all the activities you do and the people you interact with throughout a typical work day. Please begin with what you did when you commenced work and continue until you finish work, including break times.

Time Started	Task Describe task/activity in as much detail as reasonable. As each task/activity changes, note the ending time. Use a new block for each change of task/activity.	Context • with whom other adults? number of children? ages of children? • where? Inside area, outside space.	Time End
6.1 9.05	greeting whānau as arriving steadily Acknowledging every person greeting	inside, with other Teachers	all mor.
3.3 9.15	on mat inside, talking with children, 4 children. Observing their interests, a boy and a toy car. He shows me a toy car.	boy-encouraging him to bring the garage off the shelf that he is interested in	9.20
7.1 9.20	Filling large water bottle for the bush today, packing UVU Taiao Bag + collecting camera's first aid kit etc	inside, discussing with my UVU Taiao partner, organizing stories & puzzles	9.30
2.5 2.7 9.30	mat time. Large Group - waiata, whematahi, yoga	Inside, all children and Teachers,	9.50
2.2 9.50	move our Unitara group into Library Room. Read 2 stories	2 Teachers 9 children inside. 4 girls 1 student 5 boys teacher	10.00
3.3 10.05	Sort puzzles for small group (UVU Taiao) Talk with student teacher about children's needs.	in Library room support student teacher, teacher and children whilst	10.15
	Set out Giant Floor puzzle, pin poster on wall	teacher/reads 2 stories	

FIGURE 1. AN EXAMPLE OF A COMPLETED AND CODED TIME-USE DIARY TEMPLATE\*  
 \*See Table 2 for meaning of codes

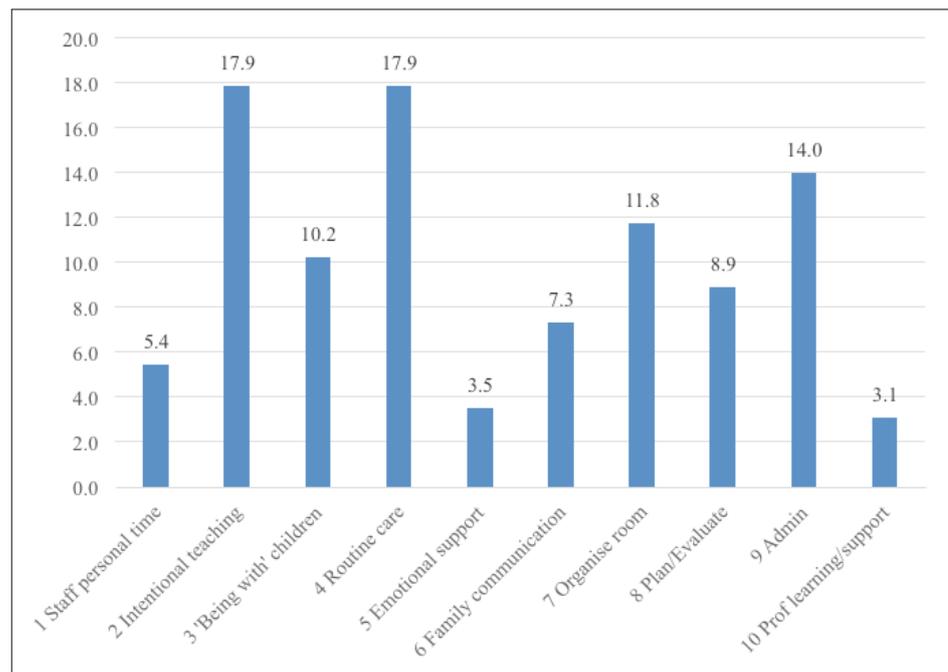


FIGURE 2. PERCENT OF DAY TEACHER PARTICIPANTS SPENT ENGAGED IN EACH DOMAIN

TABLE 2. A TAXONOMY OF EARLY CHILDHOOD EDUCATORS' WORK MODIFIED FOR AN AOTEAROA NEW ZEALAND CONTEXT\*

Domain	Subclass	Definition
1. Staff personal time	1.1 Scheduled break	e.g., meal break for lunch, morning tea, afternoon tea
	1.2 Other break	e.g., toilet, phone call
	1.3 Self-care activity	e.g., care for self, taking "time-out"; prayer/religious reasons
2. Intentional teaching with children Providing teaching and learning experiences that are deliberate, purposeful, and thoughtful (with intent) and either planned or spontaneous	2.1 Problem solving	e.g., guided discussion, questioning, construction; working out how to build something or solve a puzzle; guessing game; rules of a board game
	2.2 Literacy	e.g., writing, book reading, storytelling, show and tell
	2.3 Numeracy	e.g., counting, ordering, size and shape, weight, height
	2.4 Science/nature	e.g., caring for the environment, gardening, learning about plants and animals, exploring properties of materials, cooking
	2.5 Social/intercultural activities	e.g., people, places, foods, language, living in a diverse community, local events
	2.6 Art/craft	e.g., painting, drawing, collage with a range of media
	2.7 Music/dance	e.g., singing or playing instruments, movement to music
	2.8 Media/technology	e.g., using iPads, computers, games, or other devices
	2.9 Physical/self-help	e.g., organised games, using equipment for throwing/catching/kicking, climbing, and balancing, also fine motor skills such as using scissors; self-help, teacher showing child to use a spoon or cup to feed self; using the toilet. If not teaching, score 4.1 or 4.2
	2.10 Health/wellbeing	e.g., healthy foods, nutrition (e.g., talking about food at mealtime), exercise, understanding feelings, caring for others (resilience, emotional development, mental health)
	2.11 Sociodramatic play	e.g., symbolic, pretend, dramatic play
	2.12 Bicultural practices	e.g., karakia, waiata, tikanga, te reo Māori
	2.13 Socialising	e.g., community building, facilitating children's interpersonal relationships, collective responsibility
3. "Being with" children	3.1 Watch/scan/supervise	e.g., watching and ensuring safety of children, without necessarily interacting or teaching
	3.2 Play with children	e.g., playing alongside or together with children (digging in sandpit; building something; using art materials, joining in with a game such as hide and seek, or pretend play)
	3.3 Listen/respond to children	e.g., interacting/engaging with children to respond to/attend to their needs, helping children to do something without necessarily teaching (providing materials, holding hands while jumping). Can include greeting children on arrival, but this could be 6.1 if greeting family as well (don't score both)
4. Routine care/transition with children (educator is with the children, interacting or supervising)	4.1 Hygiene	e.g., supporting children with washing, toileting, nappy change, dressing that is related to hygiene
	4.2 Nutrition	e.g., providing food, drink, helping children with eating and putting away plates
	4.3 Health	e.g., applying sunscreen, wearing hats, administering medication, blowing nose
	4.4 Sleep/rest	e.g., supporting children with sleep routine or rest time, including setting up and packing away bedding with children, getting dressed after sleep
	4.5 Organise transitions	e.g., supporting small groups or whole group of children to move from one part of programme to another—e.g., mat time to bathroom to meal time or from indoor to outdoor play; getting ready to go home; packing up the toys with children. Include dressing that is part of the transition—such as putting on coats
	4.6 Deal with injury/illness	e.g., providing first-aid and care to children who are injured, hurt, sick, or unwell. There is a sense of urgency (e.g., washing sand out of child's eyes)
5. Emotional support	5.1 Support positive behaviour	e.g., acknowledging, praising, guiding, and supporting child/children to interact positively with other children
	5.2 Mediate conflict	e.g., intervening and supporting children during a dispute over a toy or equipment; negotiating
	5.3 Comfort child	e.g., providing physical and/or verbal comfort when a child is distressed or tired; holding baby during bottle feed
	5.4 Stop unsafe behaviour	e.g., intervening and supporting children to interact positively, and stopping negative behaviour(s), managing biting or aggressive acts
	5.5 Encourage inclusion	e.g., supporting children to include a peer and to be sensitive to individual, cultural, and other differences (such as considering the needs of a child with a disability)
	5.6 Other child related	e.g., providing emotional support for children during difficult times (i.e., separation at arrival, departure times, or group/mat times, rest time)
6. Family communication	6.1 Individual face to face	e.g., speaking with parent/carer; collaborating, working together, greeting
	6.2 Individual email, phone	e.g., communicating with parent/carer via email or phone
	6.3 Group/individual written	e.g., writing newsletter, documentation for families, communication book
7. Organise room/ Occupational Health and Safety (OH&S) maintenance Organise environment/OH&S compliance needs	7.1 Set up	e.g., setting up and/or preparing equipment/toys, room, outdoor space
	7.2 Pack up	e.g., packing up and/or preparing equipment/toys, room, outdoor space
	7.3 Food	e.g., preparing and serving food—brought from home or provided in centre
	7.4 Clean/tidy	e.g., cleaning and maintaining (e.g., restocking) or tidying the room, outdoor environment, and equipment/toys (do not use if packing away with the children = 4.5)
	7.5 Laundry	e.g., attending to laundry, using washing machine or bundling soiled clothes/manchester to be laundered off site (company/family/staff)
	7.6 Maintenance/OH&S compliance needs	e.g., maintaining physical environment and equipment to ensure safety of children and adults, and complying with relevant policies (centre and organisational) and legislation (e.g., checking temperature of fridges/including recording compliance)
	7.7 Tend to plants/animals	e.g., watering plants, pruning; feeding animals and cleaning out enclosures
8. Plan/assess/evaluate	8.1 Curriculum planning	e.g., writing plans; programming
	8.2 Observe/assess child	e.g., writing observations, using assessment tools, documenting
	8.3 Document learning	e.g., developing documentation, pedagogical documentation
	8.4 Evaluate	e.g., evaluating plans, documentation, and programme
9. Administration	9.1 Record keeping, roll	e.g., maintaining records on children (e.g., immunisation/contact details/court orders), keeping a daily roll of attendance, accident log
	9.2 Answer phone/door	e.g., meeting and greeting visitors to the centre—phone and via entrance, including deliveries
	9.3 Staff handover/communication	e.g., time spent talking to share information about children, programme, daily events, housekeeping to support a smooth transition between staff
	9.4 Staff meeting	e.g., time as a group of staff (whole/room team/partial group)
	9.5 Organise staffing	e.g., staff rosters—weekly, monthly, static; arranging relief staff, room relief for programming times, meetings; daily checking of ratios
	9.6 Other	e.g., ordering supplies, liaising with government bodies, professional associations, affiliation organisation
10. Professional learning and support	10.1 Self-educate	e.g., accessing professional materials independently—reading materials online, professional publications, journals, texts
	10.2 Attend PD/in-service	e.g., course, seminar, symposium, conference
	10.3 Support/mentor others	e.g., spending time supporting and guiding colleague(s)—providing advice, challenges or affirmations (within centre or outside). Include induction and training of new staff in this category, students on practicum
	10.4 Receive support/mentoring	e.g., receiving support, guidance, and mentoring from peer(s) or colleague(s)—receiving advice, challenges or affirmations (from centre staff or colleague outside centre)
	10.5 Pedagogical leadership	e.g., providing leadership with peer(s) or colleague(s) around teaching and learning, professional discussions where ideas and approaches are challenged
	10.6 Reflection	e.g., spending time thinking and revising professional learning, and creating professional plans

\* This taxonomy includes modifications of the 10 domains and subclasses developed by researchers from Charles Sturt University and Queensland University of Technology for Australian ECE settings. See Wong et al. (2015), particularly p. 85, for details.

each at 17.9% of their time. This was followed by administration (at 14% of time) and organising the room. None of the settings had an administrator on site so many routine administrative activities needed to be done by teachers.

Figure 3 shows “hot spot” times in the day when a large number of activities in different domains were taking place. “Hot spots” were defined as entries with four or more different domains (i.e., not subclasses) occurring within a 20-minute period. The results show the extent to which ECE teachers are multitasking and that this takes place particularly in the morning from 9am to 10am, rising to a peak from 10am to 11am. Other smaller peaks were later morning (11am to 12 noon) and then again in the afternoon (1pm to 2pm), presumably before and after lunch. Early morning and late afternoon tended not to be “hot spot” times, likely because children are arriving and leaving at these times.

In a third analysis, we examined the time of day when subclasses of activities were more likely to happen. Entries for each hour of the working day (7am–8am, 8am–9am, etc.) were totalled to record the number of activities within each domain. Entries that crossed over into the following hour were allocated to the first hour.

Figure 4 shows that certain activities peaked at different times of the day. Intentional teaching was most prevalent in the morning, especially between 9am and 10am, reducing over the morning and rising slightly between 1pm and 2pm. Emotional support was offered more in the mornings between 9am and 11am, perhaps reflecting times when children are settling. The peak for routine care was between 12 noon and 1pm when children are having lunch, and this showed a similar trajectory to “being with children”. Family communication was highest in the early morning (8am to 9am) and afternoon (2pm to 3pm). In the ECE settings in this study, these are likely the times when families bring and collect their children. Administration and organising the room were fairly constant throughout the day.

## Discussion

While our research cannot be generalised, the results from the time-use diary to date indicate that early childhood teachers’ work is complex and varied. Teachers in our research were involved in a range of activities and tasks that included education and care. The principles and strands of *Te Whāriki* and the five goals of the

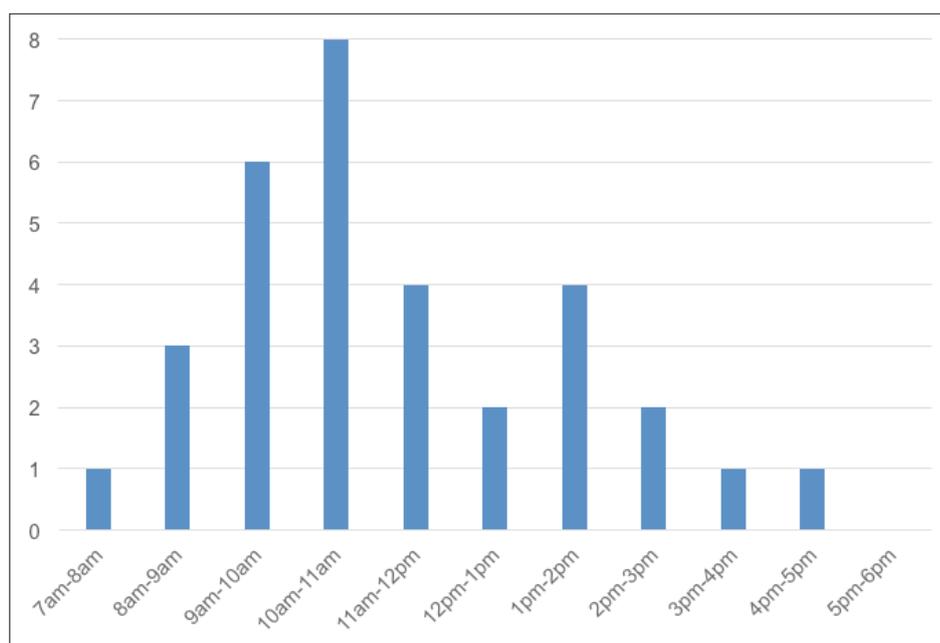


FIGURE 3. “HOT SPOT” TIMES

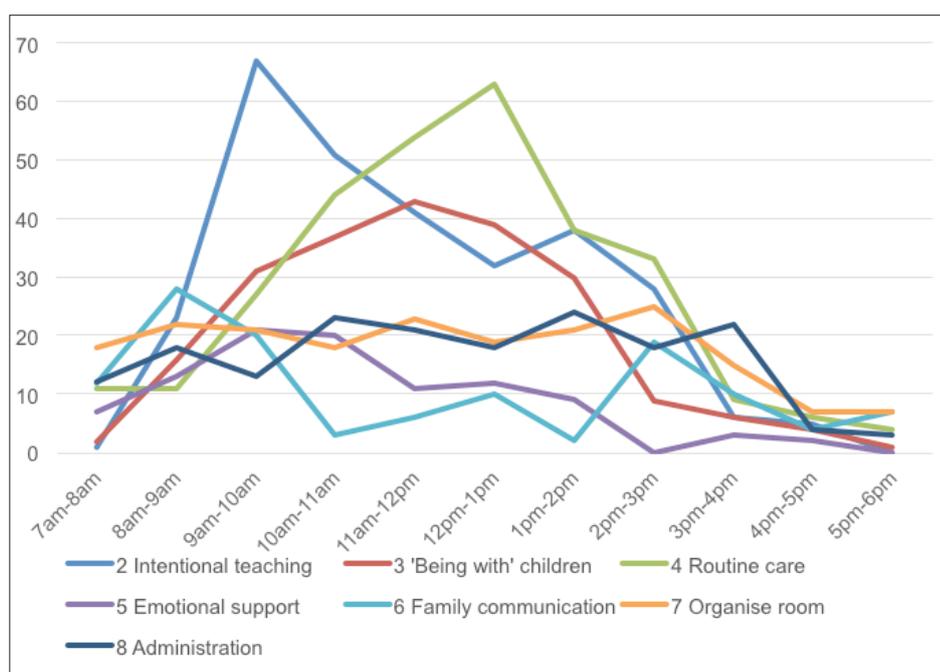


FIGURE 4. FREQUENCY OF ACTIVITY IN EACH HOUR—CHILD-FOCUSED DOMAINS

draft *Strategic Plan for Early Learning 2019–29* reflect a commitment to this overlapping focus. The complexity, variety, and often messiness of the intersection of care and education require different conditions and recognition of diverse contexts, to develop pedagogies that enable “every child to enjoy a good life, learn and thrive in high quality settings that support their identity, language and culture and are valued by parents and whānau” (Ministry of Education, 2018a, p. 11).

There are clear implications on the need to support this complexity through specific policy measures in the *Strategic Plan for Early Learning*. We argue that the findings provide rationale for a system of education that supports a well-qualified, professionally supported, and equitably remunerated early childhood teaching workforce. Systemic conditions need to apply at all layers/subsectors of the ECE system as advocated in the European CoRe project

(Urban, Vandenbroeck, Lazzari, Van Laere, & Peeters, 2012).

At the level of government policy, the proposals in the strategic plan identify crucial governmental responsibilities relevant to the findings of our research; these need to be cohesive, well supported, and bold. We agree with broad objectives but argue that there is urgency for the strategic plan to move quickly in the following related areas, to be more specific and to develop strong mechanisms for targets to be achieved in policy and practice, sooner than is currently proposed.

*100% registered and qualified teachers in teacher-led ECE services.* Qualified teachers have knowledge about human development and the ways in which young children learn, and recognise the “funds of knowledge” that families can contribute. Teachers use their knowledge of children and pedagogy to offer cognitively challenging interactions that are associated with intentional teaching and gains for children. The strategic plan target is for 80% qualified teachers in 2022, and 100% qualified teachers at an unspecified date. Yet, already 68% of the teaching workforce in kindergartens, education and care centres, and “other” teacher-led services (excluding home-based) hold a recognised teaching qualification (Ministry of Education, 2018b). On this basis, we expect that 80% qualified teachers is achievable by January 2020; and argue for 100% qualified teachers within 5 years. Using the experience of the first ECE strategic plan *Ngā Huaraki Arataki* which made speedy progress in building a qualified teaching workforce (Mitchell et al., 2011), we argue for both funding incentives (including immediate reinstatement of a funding band for centres with 100% qualified teachers) and a range of initiatives to support people to gain qualifications. We remind politicians that it is mainly private ECE business owners who make a profit out of ECE services, who claim teacher shortages, and who lobby against 100% qualified teachers. Improvements in qualified teachers need to go hand in hand with the proposed improvements in ratios.

*Pay parity of ECE teachers with primary and secondary teachers.* The current proposal is weak in proposing only “to improve the consistency and levels of teacher salaries and conditions across the early learning sector”. Pay parity for equivalent qualifications, responsibilities, and experience across the ECE and schools sector will resolve current divides in pay and conditions between teachers in kindergartens and

schools and teachers in education and care centres. History indicates this will not happen when individual business owners are responsible for employment negotiations; a mechanism for collective bargaining for all teachers with government involvement is necessary.

*Support for administration.* The teachers in our study spent a high percentage of their time on administrative tasks, time that arguably detracts from their pedagogical focus. Ways to reduce administrative workload need to be offered through policy initiatives in the strategic plan, linked perhaps to Goal 4.2 of providing management and governance support for community-owned services, or through Education Hubs as proposed to support schools in the report by the Tomorrow’s Schools Independent Taskforce (Ministry of Education, 2018c).

*Teachers as critical thinkers.* Finally, the vision of the strategic plan, the bicultural imperatives of *Te Whāriki*, and the increasing diversity in Aotearoa New Zealand require teachers who are critical thinkers, who question what forms of knowledge count, producing curricula that are locally relevant and acting critically. The review of initial teacher education (ITE) programmes by the Teaching Council Aotearoa New Zealand also offers expectations of what attributes the qualifying teacher needs to make judgements about what is best in particular circumstances. Working conditions and professional development offer crucial supports for these attributes. Past initiatives such as the Centre of Innovation programme and professional development associated with assessment resources are positive examples of models that support teachers to research and critique their own practice. Access to such opportunities needs to be available to all teachers.

The researchers from the Early Years Research Centre have received funding from a University of Waikato Strategic Initiative grant to refine the content of the EC Random Time Sampling Time Use Diary smartphone app originally developed by Charles Sturt University researchers. This is a first step to trialling the modified app in Aotearoa New Zealand settings in order to establish a validated RTSTUD smartphone app, to be used in a comparative study of workforce issues in Australia and Aotearoa New Zealand. Yet we are aware the contexts and curriculum emphases in Aotearoa New Zealand are unique, and we saw some differences with Australian contexts and curriculum when we identified the need to make changes to the taxonomy, especially in respect to bicultural

practices. One implication of this is to be always aware of and vigilant about the dangers in thinking that what works somewhere else will work in the same way in a different context (Biesta, 2010). A comparative study is valuable, not to copy policies and practices from one country to our own, but to give us the opportunity to think differently and therefore critically, to enable us to see what we take for granted—these things are of mutual benefit in helping push forward thinking and practice.

Our interest is in undertaking a large-scale study, using the smartphone app to build a more comprehensive picture of teachers’ everyday work across the country. Having this information will enable us to advocate for better working conditions, validate the professionalism of early childhood teachers, and contribute to building positive teacher identity.

## Acknowledgements

We appreciated very much the contribution of teachers from Campus Creche, Central Kids Kindergarten–Kihikihi, Gate Pa Kindergarten, Katoa Kindergarten, Matapihi Kindergarten, Maungatapu Kindergarten, Ohaupo Child-care, and Whaihangā Early Learning Centre. Teachers met with us to discuss the project and what was expected, carefully completed time-use diaries over a whole day (an onerous task), and discussed the findings together with us to recommend modifications to the taxonomy.

## References

- Biesta, G. (2010). Why “what works” still won’t work: From evidence-based education to value-based education. *Studies in Philosophy and Education*, 29, 491–503.
- Meade, A., Robinson, L., Stuart, M., Williamson, J., & Carroll-Lind, J. (2012). *Early childhood teachers’ work in education and care centres: Profile, patterns and purposes*. Wellington: Te Tari Puna Ora O Aotearoa.
- Ministry of Education. (2018a). *Strategic Plan for Early Learning 2019–2029*. Draft for consultation. <https://conversation.education.govt.nz/assets/ELSP/Early-Learning-Strategic-10-Year-Plan.pdf>
- Ministry of Education. (2018b). *Overview of ECE teaching staff in 2018*. Retrieved from [https://www.educationcounts.govt.nz/\\_data/assets/pdf\\_file/0011/192944/ECE-Summary-page-3Teaching-staff-in-2018.pdf](https://www.educationcounts.govt.nz/_data/assets/pdf_file/0011/192944/ECE-Summary-page-3Teaching-staff-in-2018.pdf)
- Ministry of Education. (2018c). *Our schooling futures: Stronger together. Whiria ngā kura tūātitini*. [Report by the tomorrow’s schools

- independent taskforce.*] Retrieved from <https://conversation.education.govt.nz/assets/TSR/Tomorrows-Schools-Review-Report-13Dec2018.PDF>
- Mitchell, L., Meagher Lundberg, P., Mara, D., Cubey, P., & Whitford, M. (2011). *Locality-based evaluation of Pathways to the Future—Nga Huarahi Arataki*. [Integrated report 2004, 2006, and 2009.] Retrieved from <http://www.educationcounts.govt.nz/publications/ece/locality-based-evaluation-of-pathways-to-the-future-ngahuarahi-arataki>
- Mitchell, L., Royal Tangaere, A., Mara, D., & Wylie, C. (2006). *Quality in parent/whānau-led services*. Retrieved from [https://www.educationcounts.govt.nz/\\_\\_data/assets/pdf\\_file/0004/117184/Quality-in-Parent-Whanau-led-Services-Summary-Report.pdf](https://www.educationcounts.govt.nz/__data/assets/pdf_file/0004/117184/Quality-in-Parent-Whanau-led-Services-Summary-Report.pdf)
- Urban, M., Vandenbroeck, M., Lazzari, A., Van Laere, K., & Peeters, J. (2012). *Competence requirements in early childhood education and care*. Retrieved from <http://files.eric.ed.gov/fulltext/ED534599.pdf>
- Wong, S., Harrison, L. J., Press, F., Sumsion, J., Gibson, M., & Woods, A. (2015). The construction of a taxonomy of early childhood educators' work. *Australasian Journal of Early Childhood*, 40(3), 79–88.

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