TEACHER ENGAGEMENT WITH ACADEMIC READING IN A POST-SERVICE TESOL COURSE

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First received: 27 September 2016 Final proof received: 11 January 2017

Abstract

Engaging school teachers with academic reading is challenging for all teacher trainers, yet if teachers' knowledge base is to be up-to-date the input of new research information is essential. Within the field of teacher professional development, few research studies focus primarily on teacher academic reading. On the Auckland New Zealand TESOL diploma course reported on here, academic readings are key. They theorise the weekly lecture topics and provide practical strategies that embed the theory. Three approaches to academic reading are used. These three approaches are the focus of the study reported here, exploring the attitudes of the 49 elementary and secondary school teachers over the two years of the part-time course. Quantitative questionnaire findings and relevant qualitative interview data which explicate the quantitative findings are reported on. The key finding was that, on average, the entire sample exhibited a large and statistically significant increase in engagement in academic reading over the two-year period. A majority of the teachers favoured the third approach to academic reading, being tightly structured, supportive reading groups rather than independent reading or reading presentation to a group. They valued the interdependence and reciprocity of the tightly structured reading groups.

Keywords: teacher academic reading; teacher professional development; TESOL; structured reading groups

Teachers' knowledge base relies on the input of new research information. Through academic reading, teachers can keep up to date with new insights and developments influencing their professional field, new teaching and pedagogical approaches, and also new societal developments which impact education (Kwakman, 2003). In their synthesis of research evidence that aims to explain what works in improving education outcomes and why, Timperley, Wilson, Barrar and Fung (2007) identified seven critical elements of professional learning. These include focusing on reviewed academic readings that provide substantive new learning around content, skills and/or ways to think about existing teaching practices, content having some consistency with wider trends in policy and research, and challenging prevailing thinking. Consequently, it is surprising to find that academic reading is given little explicit attention in the large field of teacher professional development literature or school improvement/reform literature (for example: Borko & Putnam, 1996; Darling-Hammond, 1998). Kwakman's (2003) large study in the Netherlands into factors affecting teacher learning is one with an explicit focus on teacher reading. That study's findings suggest that teacher participation in academic reading is disappointingly low.

On the Auckland New Zealand TESOL (Teaching English to Speakers in Schools of Other Languages) diploma course reported on here, academic readings are key. They theorise the weekly lecture topics and some provide practical strategies that embed the theory. In 2014, the researchers, lecturers on the TESOL course, set out to explore teachers' engagement with, and use of, readings. We wanted to know what the underlying factors relating to teacher engagement with academic reading were, particularly in relation to the three different reading approaches used. We also wanted to find out whether levels of reading engagement changed over the two years of the course. This article reports on the quantitative findings from 49 primary and secondary school teachers. It also draws on relevant qualitative data to explicate the quantitative findings.

The review of literature that follows provides a context for our questions. It addresses academic reading's role in post-service professional development and the nature of the academic knowledge required for effective teacher professional development for those working in multicultural and multilingual schools.

 doi: dx.doi.org/10.17509/ijal.v6i2.4912

Reading's role in teacher post-service professional development

Le Fevre (2014) points out how challenging it is for teachers to take on new information that challenges existing beliefs. She discusses ways schools can reduce the level of perceived risk, thus providing a supportive environment in which teachers feel empowered to take risks and change. Le Fevre's research arises from school-based professional development in which all teachers within a school are required to engage, whereas the context of this study reported on here is a university classroom where colleagues are teachers from many different schools and all have chosen to enrol in the course. These teachers, it could be hypothesised, have enrolled because they are seeking ways to change and are already the actors arranging their own learning processes in ways that Kwakman (2003) valourises (2003).

Parrott and Cherry's (2011) study suggests approaches to academic reading that can provide the support Le Fevre contends is necessary. Parrott and Cherry sought ways to engage learners with deep reading (requiring both individual and collaborative settings). In their work with social science students, they had found significant difficulties in getting their students "to complete the readings and, beyond that, having them engage in deep reading" (p. 354). They concluded that this was because groups were often poorly organised. Parrott and Cherry set conditions for group work: students were assigned small groups and a set of rotating group roles (discussion leader, passage master, devil's advocate, creative connector, and reporter). Interestingly, one of the roles, that of devil's advocate, requires students to challenge the reading's ideas, and another requires developing connections to other academic readings and existing educational beliefs and wider policy. Students met with their groups each week. Before the group meeting, they were to complete the reading and be prepared to contribute to the group in their given role. The students reported that:

> *small group work gave them positive pressure to complete the reading to be able to participate in the discussion, helped them understand multiple perspectives on the readings and topics, and helped them better comprehend the theories and concepts in the readings themselves* (2011, p. 364).

A critical factor in structured reading groups such as Parrott and Cherry (2011) described is the interdependence of group members. In 1990, Little discussed strong and weak forms of teacher collegial interdependence contending that, in joint work, teachers were most dependent on each other. This study responds to Little's call for more research into "the conditions that require, permit, or inhibit teachers' initiative toward one another with regard to matters of curriculum and instruction" (p. 531).

Situatedness is one condition both cognitive psychological and teacher development theorists tend to argue is critical to teacher learning in professional development settings. Kwakman (2003) contends that it is a situatedness contingent on being able to apply theory to actual classroom realities rather than the site of learning that is the important variable. Her study found that "the activity itself is considered more important than the situation in which it takes place" (p. 154). For school-based professional learning to work, considerable thought was required to provide adequate school learning infrastructure. Its absence, Kwakman surmised, may account for the poor participation of teachers in professional development on school sites. A university classroom where teachers from different settings possess differing funds of knowledge (Moll, Amanti, Neff & Gonzalez, 1992) has the potential to provide the context for challenging discussions and the application of theory to actual classroom realities.

Another factor critical to teachers' effective involvement in professional development, Spillane and Louis (2002, p. 99) contend, is that they need to have a role in decision-making and change: a "strong teacher voice in the development of policies that affect learning conditions and classrooms is also important". Murphy (2002, p. 77) also suggest that school leadership plan professional development through "a web of interpersonal relationships – with people rather than through them". Fostering and actively using interpersonal relationships in planning and implementing professional learning means taking account of teachers' personal drivers. Day, Sammons, Stobart, Kingston and Gu (2007, p. 149) in their large study in English primary and secondary schools found, like Kwakman (2003), that the extent to which personal drivers dominated reasons for undertaking professional development in all phases of teachers' professional life "was striking". In a multilingual school setting the teachers with expertise in TESOL are the ones on whom school leadership needs to draw when planning professional development. This is the focus of the following section.

The nature of the knowledge required for effective teacher professional development in multicultural and multilingual schools

Although the important role of a rich, local contextual familiarity in developing theory and practice is widely acknowledged (Allwright, 2012; Kumaravadivelu, 2006), learning about TESOL concepts (dynamic and debated as they may be) in informing the contextualised development of theory and practice is less widely recognised. TESOL knowledge can provide a critical lens for school policy development. In their longitudinal studies, Sinnema and Robinson (2012) found that a great deal of current training for school leaders focuses on

topics and knowledge bases that have a low capacity to open up new horizons for principals working in low socio-economic communities. What is not often discussed is that many of these low socio-economic communities are multilingual and multicultural and that understanding TESOL concepts is required if a difference to entrenched patterns of ethnic and social class profiles of students with low achievement is to be made (Kitchen, Gray & Jeurissen, 2016; Murphy, 2002; Spillane & Louis, 2000; Timperley, 2011). York-Barr and Duke (2004, p. 255) contend that reflective classroom teachers must be at the centre of improvement efforts: "The concept of teacher leadership suggests that teachers rightly and importantly hold a central position in the ways schools operate and in the core functions of teaching and learning".

The TESOL understandings that teachers working in multilingual, multicultural schools require include the role of language in learning for all (Department of Education and Science [DES], 1975; Derewianka, 2004; Halliday, 1978; Humphrey, Droga, & Feez, 2012), and knowledge about SLA pedagogy. Equally important is an understanding of ways for teachers to draw on and develop the language and cultural funds of knowledge the students bring to school (Moll et al., 1992).

In summarizing the literature, while academic reading is critical to update teacher learning, there are few studies that explicitly focus on academic reading. The conditions most likely to encourage uptake and consequent experimentation or application in the classroom appear to be teacher agency, a reflective context, and a collaborative setting that is characterised by interdependence. Important to note too, is that making a difference to entrenched patterns of ethnic and social class profiles of students with low achievement has received insufficient explicit attention in many countries, and in these settings TESOL knowledge is required.

The TESOL Diploma in the Auckland New Zealand context

New Zealand's population is categorised by super-diversity, "multiple-origin, transnationally connected, socio-economically differentiated" migrants (Vertovec, 2006, p.1024). Auckland, New Zealand's largest city and the context for this study, is a magnet for demographic growth: about 40 percent of Auckland's population were born overseas (The Royal Society of New Zealand, 2014). This superdiversity is, necessarily, a pivotal factor in education. The Ministry of Education offers scholarships for practising primary and secondary school teachers to gain TESOL qualifications, and the Auckland University's TESOL Diploma is the focus of this study. The scholarship teachers complete four core courses over two years, attending the consecutive courses after school once a week. To complete the Diploma the teachers need four more courses which they select from a range of options.

Within each of the four core courses (denoted as 227, 372, 373 and 374), each week, between two and five readings relevant to the lecture topic were provided, and the teachers chose one from these and approached the reading in one of three ways. For the first course (227), the teachers chose one reading to summarise, apply to a classroom setting, and then, on the given week present the chosen reading to a group of teachers. For the second course (372), the teachers read independently, choosing one reading from the two to five-weekly readings. In Year Two (373 and 374), the Parrott and Cherry reading group structures were used. Each week the small groups, towards the end of these 40-minute group reading report session, would decide on the next week's reading.

It was anticipated that the findings would enable refinement of the approach to reading tasks by charting the teachers' commitment to reading and by exploring which of the three reading approaches engaged them most. Allwright's (2012) model of exploratory practice that seeks to enhance the quality of life in the classroom by understanding more deeply the factors affecting the teachers' learning inspired the study.

METHOD

Two types of data sources inform this report: a Likert-scale questionnaire administered towards the beginning and end of the four core courses; and an open-ended writing topic probing the teachers' preferences around the three different reading approaches that accompanied the second iteration of the questionnaire. The topic was: What approaches to reading have you found most effective through the core compulsory courses and why? In analysing the writing topic responses the preferences were simply counted, whereas in analysing why the reading approach was preferred, modified grounded theory (Charmaz, 2006) was employed. Separately, the researchers took responsibility for developing initial key codes and supporting evidence. We met and compared codes and evidence then together conflated these, subsuming them into wider categories. (See Appendix 1 for an example).

The quantitative section below responds to these research questions: (1) What is/are the underlying factor(s) relating to teacher engagement with reading on a TESOL course?, (2) What are the cohort differences for the factor(s) at baseline (Time 1 [T1])?, (3) What are the cohort differences for the factor(s) at follow up (Time 2 [T2])?, and (4) With reference to the factor(s), to what degree do (a) the entire sample, and (b) the cohorts of interest shift over the T1 to T2 period?

Participants

Baseline participants (at T1) included 49 practising teachers studying part-time in semester 1, 2014. At T2, almost two years later, at the end of semester 2, 2015, 43 of the T1 participants constituted the T2 sample. Ethical approval was not granted to track individual participants across the time period, so the 43 respondents at T2 could be considered a random sample of the initial 49 respondents. This has implications whereby a 5.32% initial margin of error is associated with the T2 data (a sample of 43 from a population of 49 is associated with a margin of error of 5.32%; Raosoft, 2016). Participants were recruited by convenience sampling. Therefore, it is recognised that the findings may not be generalizable to broader populations. A breakdown of the seven demographic groupings of interest for the T1 and T2 cohorts is provided in Table 1. However, not all categories were considered stable over time. For RQ2 to 4, only the following four stable categories are reported on: Four of the stable demographic categories are reported on: gender, teaching level, education level, and lingual ability.

As depicted in Table 1, analysis suggested no statistical significance in proportional shifts in demographic categories across the two time points. All proportions and proportional shifts over time appeared feasible. This provides some level of confidence that the shift in demographic categories across the time period was reasonably consistent.

Methods and materials

The quantitative questions posed in the repeated survey included 24 seven-point agreement scale questions designed by the authors to measure the extent to which the teachers engaged in reading. Questions were categorised under the following five themes: (a) attitudes and practices; (b) accessibility; (c) resourcefulness; (d) links to classroom practice; and (e) collegiality.

Table 1. Demographics for T1 and T2 Cohort

Demographic	Time 1 (*n* = 49)		Time 2 (*n* = 43)		$\chi^{2\,(sig.)}$
	n	%	*n*	%	
Gender					
Female	43	87.8	38	88.4	0.01^{ns}
Male	6	12.2	5	11.6	
Age[1]					
Younger (20 to 40)	20	40.8	15	34.9	0.34^{ns}
Older (41+)	29	59.2	28	65.1	
Teaching Level					
Primary school	37	75.5	34	79.1	0.16^{ns}
Secondary school	12	24.5	9	20.9	
Current Position[1]					
Classroom teacher	40	81.6	29	67.4	2.46^{ns}
Teacher in leadership position	9	18.4	14	32.6	
Years' Teaching Experience[1]					
Five to 10 years	26	53.1	16	37.2	2.32^{ns}
More than 10	23	46.9	27	62.8	
Education Level					
Dip/Undergrad	26	53.1	22	51.2	2.32^{ns}
Grad/Postgrad	23	46.9	21	48.8	
Lingual Ability					
Monolingual	31	63.3	29	67.4	0.18^{ns}
Multilingual	18	36.7	14	32.6	

Note: [1]Proportional shifts up in age, current position, and years teaching conceivable from T1 to T2; 2 x 2 Chi-square (χ^2) values estimated with the assistance of Stangroom (2016) software.

Design and procedures

Data preparation and exploratory factor analysis

After preparatory procedures, variables were assessed for normality. Results revealed that, for all variables, skewness and kurtosis were under |2.0| and |7.0|, respectively| (Curran, West, & Finch, 1996). Therefore, data met all the assumptions necessary for exploratory procedures.

To answer RQ1 concerning the underlying factor(s) pertaining to the teacher professional reading, exploratory factor analysis (EFA) was utilized. Research suggests that EFA may be appropriate for samples under 50 in data conditions of quite high item-factor loadings ($\beta \geq .6$), and solutions involving one or two factors (de Winter, Dodou & Wieringa, 2009). In addition, EFA was also chosen because the question items utilized in the investigation are based upon little or no prior research. With the assistance of the SPSS R-menu 2.4 (Basto & Pereira, 2012; Courtney, 2013), MAPr2 and PA-PCArm procedures were chosen to determine the number of factors to retain during ongoing explorations of solutions for each dataset. In accordance with data conditions, EFA was carried out using SPSS 22 (IBM, 2013) with ML estimation, and oblimin rotation (Beavers et al., 2013). Following guidelines proposed by Beavers et al., pattern matrices were inspected whereby minimum required loadings were .30 and no cross- or low-loadings existed. Both T1 and T2 datasets

were subject to separate, ongoing EFA procedures for the purpose of finding a clean EFA solution that aligned across both time points.

Assessment of cohort differences

To answer research RQs 2 and 3, factor scores were estimated by calculating sum scores (Hair, Black, Babin, Anderson, & Tatham, 2006, p. 140). Thereafter, to assess group differences, independent sample t-tests could be carried out, alongside the t-test unequal sample size calculator (Wilson, 2015) for the estimation of effect sizes (Cohen's d).

For RQ4(a) and (b), there are some important methodological challenges that need to be considered. Although paired-sample t-tests would be an appropriate method of determining differences in factor means for a group over a given time period, this method was not possible because of the lack of case alignment. As an alternative, independent sample t-tests, alongside the t-test unequal sample size calculator (Wilson, 2015) provide for an assessment of both magnitude (Cohen's d) and statistical significance (p) of change from T1 to T2.

As explained, the T2 sample deviates from the T1 sample with a margin of error of 5.32%. To accommodate this methodological concern, and to account for the fact the independent sample t-tests do not sufficiently account for correlations between repeated answers, where T1 to T2 shifts in Valued Professional Reading are concerned, effect sizes would have to be at least large (d < .60) and statistically significant at p > .01. In addition, results concerning overall shifts, especially where smaller cohort subsets are concerned (e.g., females only), should also be considered speculative and subject to confirmation in further, large scale, studies.

It should also be noted that, in accordance with Perneger (1998), no Bonferroni adjustments were made where multiple t-tests were carried out.

FINDINGS AND DISCUSSION

Factor analysis for T1 and T2

RQ1 asks, "What is/are the underlying factor(s) relating to ESOL teacher reading?" Ongoing exploratory procedures (using T1 & T2 data in separate analyses) resulted in a T1- and T2-aligned, one-factor solution. The one-factor solution, with the single factor identified as valued reading, is presented in Table 2.

Table 2. Item-factor loadings and communalities of TESOL survey one-factor solution for T1 and T2.

Valued Professional Reading	Time 1 (*n = 49*)		Time 2 (*n = 43*)	
	h^2	β	h^2	β
Q19. Readings provide new ways to understanding my students.	*.74*	.87	*.68*	.93
Q18. The ideas from my reading help me understand the puzzles that arise in my teaching.	*.71*	.86	*.69*	.84
Q1. I enjoy finding new ideas for my teaching in my reading.	*.61*	.78	*.66*	.74
Q3* I rarely undertake professional reading.	*.59*	.69	*.53*	.72
Q6. I find it easy to read the professional reading material we are given.	*.49*	.66	*.50*	.71
Q17. I implement ideas from readings to my classroom context.	*.45*	.61	*.49*	.70
Q2. I consciously make time for professional reading each week.	*.47*	.58	*.44*	.67
Q20*. Professional reading has no relevance to my classroom practice.	*.32*	.49	*.47*	.62
Eigenvalues		4.42		4.67
Percent Variance Explained		49.69		51.22

Note: (T1: M = 5.41, SD = 1.13, α = .86; T2: M = 6.02, SD = .76, α = .87); T1 mean β = .69, T2 mean β = .56; M = observed mean; SD = observed standard deviation h^2 = item communalities (*italicised*); β = standardized item-factor loadings; *item reverse-coded for analysis.

For both T1 and T2 data, the eight-item, one-factor solution represented a coherent and theoretically plausible construct, Valued Professional Reading. Alpha coefficients at T1 and T2 were .excellent at .86 and .87, respectively; and, mean β were .69 and .56, respectively, in line with recommendations by de Winter, Dodou & Wieringa (2009). The factor represents the teachers' perception of the pedagogical utility of professional reading, and also reflects their engagement in professional reading itself.

T1 (baseline) valued professional reading level by cohorts

RQ2 asks, "What are the cohort differences for the factor(s) at baseline (Time 1)?"

To answer this question, the T1 dataset was split into cohort groups by gender, teaching level, education level, and lingual ability. Results revealed no statistically significant differences among the four comparison groups.

T2 (follow up) valued professional reading level by cohorts

RQ3 asks, "What are the cohort differences for the factor(s) at follow up (Time 2)?"

To answer this question, the T2 dataset was split into cohort groups by the four established categories. Similar to T1, results revealed no statistically significant differences among the four comparison groups.

T2 (follow up) valued professional reading level by cohorts

RQ3 asks, "What are the cohort differences for the factor(s) at follow up (Time 2)?"

To answer this question, the T2 dataset was split into cohort groups by the four established categories. Similar to T1, results revealed no statistically significant differences among the four comparison groups.

Table 3. Comparison of valued professional reading by cohorts of interest at T1

Demographic/ Cohort	*N*	*M*	*SD*	Equal Var.	$t_{(df = 47)}$	$d^{(sig)}$
Gender						
Female	43	5.34	1.17			
Male	6	5.96	0.62	Yes	1.264	0.55^{ns}
Teaching Level						
Secondary	12	5.09	1.12			
Primary	37	5.52	1.13	Yes	1.125	0.37^{ns}
Education Level						
Grad/Postgrad	23	5.38	1.26			
Dip/Undergrad	26	5.45	1.04	Yes	0.220	0.06^{ns}
Lingual Ability						
Monolingual	31	5.38	1.23			
Multilingual	18	5.47	0.98	Yes	0.242	0.06^{ns}

Note: $n = 49$; *M* = observed mean; *SD* = observed standard deviation; Equal Var. (variance) between cohorts (yes) based on non-significant ($p > .05$) Levene's test result; ^{ns} = not statistically significant.

Table 4. Comparison of valued professional reading by cohorts of interest at T2.

Demographic/ Cohort	*N*	*M*	*SD*	Equal Var.	$t_{(df = 41)}$	$d^{(sig)}$
Gender						
Male	5	5.88	0.64			
Female	38	6.04	0.79	Yes	0.457	0.22^{ns}
Teaching Level						
Secondary	9	5.65	0.68			
Primary	34	6.12	0.77	Yes	1.669	0.63^{ns}
Education Level						
Grad/Postgrad	21	6.00	0.71			
Dip/Undergrad	22	6.05	0.83	Yes	0.193	0.06^{ns}
Lingual Ability						
Monolingual	29	5.94	0.82			
Multilingual	14	6.19	0.64	Yes	0.978	0.32^{ns}

Note: $n = 43$; *M* = observed mean; *SD* = observed standard deviation; Equal Var. (variance) between cohorts (✓) based on non-significant ($p > .05$) Levene's test result; Cohen's *d* calculated in accordance with Wilson's (2015) online tool; effect sizes that are large ($d < 0.39$) and meet minimum level of significance ($*p = .05$) in bold.

Assessment of shift in valued reading by cohort over time

RQ4(a) asks, to what degree does the entire sample shift over time? To carry out an assessment of the shift in valued professional reading over the time period, an independent sample t-test was first performed on the entire combined dataset. Results revealed that, overall, there was a large and statistically significant increase in valued professional reading with $d = 0.62$ ($p < .01$) (see Total row, Table 5). This was the most important quantitative result in the current investigation.

RQ4(b) provides for a more detailed look at which groups may have benefited the most in the transitional period. Results presented in Table 5 reveal that female teachers ($d = 0.70$, $p < .01$) tended to exhibit a greater increase in Valued Professional Reading over the period than males ($d = -0.13$ns).

Summary of quantitative results

In summary, results suggested that the Valued Reading factor constituted a viable factor at both baseline and at the near two-year follow-up period in the current study. At the baseline level, teacher groups appeared to exhibit relatively comparable levels of valued reading. Similarly, at follow-up, cohorts displayed similar levels of valued reading.

The main finding in the quantitative study was that, over the near two-year period, on average, teachers on the TESOL professional development programme largely improved in relation to how much they personally valued reading and considered its utility for professional practice. This improvement tended to be more relevant to female teachers enrolled in the programme who reached levels of valued reading comparable to their male colleagues, although this result should be considered

Table 5. Shift in valued professional reading over time by cohort and total.

Demographic/ Cohort	T1 *N*	T1 *M*	T2 *N*	T2 *M*	Δ *M*	Equal Variance	$t_{(df)}$	$d^{(sig)}$
Gender								
Male	6	5.96	5	5.88	-0.08	yes	$-0.220_{(9)}$	-0.13^{ns}
Female	43	5.34	38	6.04	0.71	yes	$3.135_{(79)}$	**0.70****
Teaching Level								
Secondary	12	5.09	9	5.65	0.56	yes	$1.319_{(19)}$	0.58^{ns}
Primary	37	5.52	34	6.12	0.60	yes	$2.608_{(69)}$	**0.62***
Education Level								
Grad/Posgrad	23	5.38	21	6.00	0.63	yes	$2.005_{(42)}$	**0.61***
Dip/Undergrad	26	4.45	22	6.05	0.60	yes	$2.175_{(46)}$	**0.63***
Lingual Ability								
Monolingual	31	5.38	29	5.94	0.56	yes	$2.065_{(58)}$	**0.53***
Multilingual	18	5.47	14	6.19	0.72	yes	$2.386_{(30)}$	**0.85***
Total		5.41		6.02	0.61	yes	$2.980_{(90)}$	**0.62****

Note: Equal Var. (variance) between cohorts (yes) based on non-significant ($p > .01$) Levene's test result (Tabachnik & Fidell, 2007); Cohen's *d* calculated in accordance with Wilson's (2015) online tool; effect sizes that are at least large ($0.60 \leq d$) and meet minimum level of significance (*$p < .05$) in bold; large and statistically significant (*$p < .01$) in bold and underlined.

more speculative given the small number of males in the sample.

Qualitative Data: Improvement in value awarded reading

The teachers preferred the tightly structured reading groups (Parrott & Cherry, 2011). In the responses to the open-ended questions, twice as many of the teachers chose this academic reading structure compared with the other two choices combined (summarise and present a reading to a small group once a semester; weekly independent reading). This approach was even more heavily favoured by teachers who identified themselves as bilingual – more than three times as many preferred this option compared with the other two choices combined. Both monolingual and bilingual teachers talked at considerable length about the increased theoretical and academic nature of the readings in Year Two. While this aspect was more challenging for all, they found the collaborative talk around the readings helped them construct meaning and develop practical instructional classroom applications. There was one marked exception, a teacher who found listening to others' talk irrelevant to her own context. This was an important yet unexpected finding and deserves to be explored in depth in another article.

The teachers valued tightly structured reading groups for two main reasons: accountability to the group ensured they read the readings; and richer understandings gained from the group members' prepared key points/questions/connections and dialogic interaction that deepened language skills. For example, they valued the "*sharing of ideas/understanding of readings – easier to understand . . . . discussions on reading and how to apply it to myself as a teacher*." This was in contrast to independent reading: "*This is good but can confuse myself if not sure*." Others echoed these thoughts: "*It is also effective as people in the group talk about the reading and I gain new ideas from different people. The group members would explain parts of the reading that I had not understood*." This particular teacher was not the only bilingual teacher to comment on how regular reading and regular discussion enriched her English language skills when the readings were challenging. "*Collaborative talk proved to be very helpful/ group members would explain parts of the reading that I had not understood/ strengthened my understanding of the language (English)."*

There was reciprocity. Monolingual teachers relied on seeing the readings through the lenses of others' worldviews. For example: *"Liked to be able to see readings through others' eyes – gave one a greater perspective."*

A bilingual teacher said that the practice the structured reading group roles gave her transferred to greater participation in collegial discussions at her school:

> *Group discussion has been really useful. I spend more time reading researched materials. My attitudes towards reading have improved. I participate more in professional circles. I am able to confidently contribute in collaborative talk and PD meetings. I use readings in my classroom practice to enhance teaching and learning. Group discussions have been really useful.*
>
> *These may be small steps, but they are significant steps towards leadership because they had TESOL knowledge to share: "This year the level of difficulty was higher therefore time spent on reading was longer. However, I have loved the readings and having access to these is something I will miss next year. I have bought so much learning to my school through the readings."*

Accountability was important, and the descriptor "accountable" was used by many respondents.

> *"I have been doing more reading compared to when I started the course. I found (373/374) method*

> *effective because I know that I must do my reading as I have a task to do (creative connector etc.) . . . The discussions are often robust as I believe everybody puts in more effort."*

Other teachers, however, did favour independent reading and weekly summaries because of the nature of the embedded, worked-out exemplars of instructional, SLA-based strategies for the classroom. For example, one teacher reported: *"Lots of great ideas to use in the classroom. I enjoy readings where I get practical ideas for classroom and also a deeper understanding of the student in my class."*

What accounts for the quantitative finding of a significant shift in the level of engagement with academic reading by the teachers? The qualitative data clearly show that the structure of the reading groups contributed. Accountability meant the group functioned well. Teachers did individually read and reflect prior to meeting in the group. Individual understandings were clarified and enriched because roles required teachers to go beyond the reading and connect to and critique both TESOL notions and theories, and prevailing Ministry of Education policies. This confirms Little's (1990) contention that collegial interdependence can be a key to teacher learning.

Teachers engaged for the personal reasons that Kwakman (2003) highlights. The academic reading demands were high and the discussion gave bilingual teachers access to a wider range of meanings while adding to their academic English language skills. Of course teachers need to feel they are in a safe and supportive environment if they are to ask for clarification regarding language and ideas. A university environment away from one's own school peers and where the marks awarded, in the case of course readings, are based on completion, can be such a place. Moreover, these very teachers who found the English of academic readings somewhat formidable and were keen to ask for help, were the very teachers whose viewpoints and experiences other respondents valued highly because they elucidated for the monolingual teachers, the needs of students in their classrooms. It is interdependence in this sense, reciprocity enacted in multiple ways, in an out-of-school setting, that appeared to drive the success of these reading groups. Arguably, collaboration is beneficial when each group member has a manageable, specific and essential contributing role together with specific skills and knowledge. This finding provides some answers to Kwakman's (2003) search for conditions that increase teacher appetite for academic reading.

Another key factor was reading relevance and practical application to meet the needs of the teachers' unique English language learners, no matter which reading approach was in use. These teachers were keen to understand and implement teaching and learning strategies appropriate for their student cohort. Moreover, the teachers were becoming the experts on whom those in leadership could call when setting school learning goals (Kitchen, Gray & Jeurissen, 2016; Timperley, 2011). The learning transferred from the university setting to the school setting. These teachers, armed with new learning, were starting to step up to leadership positions. York-Barr and Duke (p. 261) saw such expanded teacher roles as offering real hope for improving schools: "Such a view of teacher leadership involves leading among colleagues with a focus on instructional practice, as well as working at the organizational level to align personnel, fiscal and material resources to improve teaching and learning."

Connected with interdependence and the challenge to teacher thinking was the notion that the teachers had choice. Challenges to thinking came from within the group and were not imposed from outside, or by someone with power over them (which can happen in school-based professional development). This internal control may reduce the risk that Le Fevre (2014) raises around challenging teacher thinking.

The self-reports of the teachers in this study suggest that they risked challenging their thinking. These findings have limitations in that they do not extend to observations of classroom and school practices.

CONCLUSION

While the findings are clear that the 49 elementary and secondary school teachers on the TESOL diploma course did exhibit a significant increase in academic reading engagement over the two years, a follow-up study into ways in which this knowledge was enacted in school contexts would be valuable.

As teacher trainers we we have been reminded that our best learning comes from our students. As reported here, we have recognised the real learning that can arise through reciprocity when teachers are interdependent. Conditions critical to reciprocity and group work success include each teacher's individual reading and thinking role prior to group discussion and a cross-cultural group composition.

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Appendix 1: Sample of code headings

Teacher	**Pedagogy** Response to pedagogical approach to working with readings.	**Pedagogy** Ways in which teachers have used the reading in their own learning/ teaching
Bilingual Primary Female		