

Does size really matter in university preparatory English language classrooms?

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The purpose of this study was to investigate the impact of class size on the learning and teaching of English in an intensive pre-university program. Four 'larger' and four 'smaller' sized classes were created, and each class was populated with a mix of students in terms of achievement and motivation. Tutors were assigned to both large and small classes, and tutor quality was controlled for qualifications, experience, and demonstrated effectiveness. When student grades were analysed at the end of the course, no significant differences in student achievement were found in overall, end-of-course grades. However, for students at the elementary language level, class size had an impact on their success. In addition, it was found that tutors as well as students indicated a strong preference for smaller-sized classes at both elementary and intermediate language levels. The study adds insights from a rapidly evolving international higher education context to the existing body of research into the impact of class size on students and teachers.

Introduction

The issue of class size and its potential impact on student learning in higher education has been an important consideration for policy-makers and global ranking agencies for many years. In the UK, for instance, the 1997 *National Committee of Inquiry into Higher Education* stated that larger classes have a negative impact on student achievement (Bandeira, Larcinese & Rasul, 2010). The UK based *Times Higher Education's World University Rankings* includes 'staff-to-student ratio' as part of its assessment of a university's 'learning environment', while the *US News Best Colleges* rankings adopt 'class size index' and 'student-faculty ratio' as measures of quality.

Rather surprisingly, however, given the ostensible importance of class size, there has been relatively little research into its effects within post-secondary education (De Paola & Scoppa, 2011). Moreover, with specific reference to post-school English language courses, there have been even fewer studies, despite the extensive research that has occurred over the past thirty years into a multitude of other factors influencing success in instructed second language acquisition, as seen for example in Ellis (2015). Furthermore, although class size research has recently become more internationalised and less Western-centric than before, as Blatchford and Russell (2019) observed in their introduction to the special edition of the *International Journal of Educational Research* on this topic, no previous studies of class size have been reported from the Arabian Peninsula, a region where internationalised higher education is evolving rapidly.

The present study investigates the effects of class size on the learning and teaching of English within a multi-class setting in an intensive, pre-university English program in the

United Arab Emirates. It was prompted by an institutional proposal to increase class size, as a result of increasing student enrolments and financial constraints. As program leaders, the authors of this study responded by initiating research into the effects of varying class size in our specific context, in an effort to understand the impact of class size from multiple perspectives and to inform decision-making.

The study addresses the following research questions:

1. Do students in 'smaller' elementary-level language classes perform better than those in 'larger' class sizes, as measured by course assessment results?
2. Do students in 'smaller' intermediate-level language learning classes perform better than those in 'larger' class sizes, as measured by course assessment results?
3. Based on their experience of teaching both 'larger' and 'smaller' classes, what are tutors' perspectives on the impact of class size?
4. Based on their experiences as learners in either a 'larger' or a 'smaller' class, what are students' perspectives on the impact of class size?

We begin by explaining the context within which the study was undertaken, before considering the literature relevant to the discussion. An account of the methodological approach is followed by a detailed examination of the findings in relation to student performance in course assessments in 'larger' and 'smaller' classes at two different language levels, elementary and intermediate. This is followed by an analysis of the qualitative and quantitative data findings on student and teacher perceptions of class size. Conclusions are then drawn and recommendations made in light of these findings.

Context

The research setting is an intensive, government-funded, pre-university English language program, of the type common in the Arabian Gulf region. The *Academic Bridge Program* (ABP) at Zayed University in the United Arab Emirates is a pre-baccalaureate English program which aims to develop students' language skills through strengthening academic reading, writing, speaking and listening, in order to prepare Arabic-speaking students for successful transition into their undergraduate studies in an English-medium university. Students enrolled in this full-time program study English language only. On successful completion of the program, students can choose from a wide variety of undergraduate degree programs offered by seven colleges, including Arts and Creative Enterprises, Business, Communication and Media, Education, Humanities and Social Sciences, Natural and Health Sciences, and Technological Innovation. After the Bridge Program, students are required to study three stand-alone English language courses during the first three semesters within their chosen degree programs. The main focus of these courses is writing for academic purposes.

High-school students, who are predominantly Emirati nationals, gain admittance to Zayed University based partially on their scores on a high-school English exit exam. At the time this study was conducted, students entering the program were placed into one of six levels based on these scores. English language proficiency levels within the program ranged

from A1+ to B2 on the *Common European Framework of Reference* (CEFR) (Council of Europe, n.d.). The program duration was for a maximum of two years; the total number of students was approximately 2,000. The typical class size consisted of 18 students, with classes being capped at 24.

Literature review

Research literature on the effects of class size in general school settings is extensive, with more having been written about this subject than any other topic in education (Goldstein & Blatchford, 1998; Harfitt, 2013). In terms of class size effects on student achievement, results have been inconclusive (Blatchford, 2012; Chingos, 2013; Monks & Schmidt, 2010). Hattie's (2005) synthesis of the vast body of research on class size and student learning outcomes, for example, found that smaller-sized classes had only a small positive effect on student learning, as evidenced by achievement scores; this was also a key finding in Han and Ryu's (2017) recent investigation into the effects of high school class sizes on student learning outcomes, as measured by performance on a college entrance exam. Within the European context, Leuven and Oosterbeek's (2018) review of empirical studies at primary and lower secondary levels demonstrated only 'mixed evidence' of the benefits of smaller classes on student achievement. Similarly, research focusing on classroom processes such as the individualisation of teaching and classroom management have also tended to produce inconclusive results (Solheim & Opheim, 2018). However, there is stronger evidence that smaller-sized classes are more advantageous for student learning in the early years of schooling, and for disadvantaged students (Blatchford, 2003; Finn & Achilles, 1999; Monks & Schmidt, 2010).

Within international higher education, the research on class size is much sparser, and the findings have also been mixed in terms of showing academic achievement gains in smaller classes (Toth & Montagna, 2002; Monks & Schmidt, 2010). Extensive research studies that have highlighted a negative impact of larger classes on student grades have also demonstrated that only certain grade levels and class sizes may be affected. For example, Johnson (2010) found a negative effect of class size on grade performance across a range of disciplines, particularly at the higher levels. Similarly, Bandeira, Larcinese and Rasul (2010) noted a significant negative impact on end-of-year examinations for postgraduate students at a leading UK university, with those at the top and bottom of the grade distributions being most negatively affected. Kokkelenberg, Dillon and Christy (2008) noted a decline in average grades with increases in class sizes, with the most dramatic declines within class sizes up to 20. Other studies focusing solely on student course evaluations have demonstrated how larger section sizes have affected students' perceptions of course quality, leading not only to lower grade expectations, but also to less favourable instructor and course ratings (Bedard & Kuhn, 2008; Chapman & Ludlow, 2010; Monks & Schmidt, 2010; Walia, 2008).

With specific reference to introductory college courses, Cuseo's (2007) review of class-size research in the US concluded that smaller classes are more effective for student learning outcomes, due to increased student engagement with the tutors, with classmates, and with the subject matter. Horning (2007) pointed to the importance of class size for developing

critical reading skills for first year writing classes. Similarly, Westerlund (2008) found a significantly negative effect of class size on the quality of the course following a move to large lectures for introductory mathematics classes. Based on similar research in Canada, Iaria and Hubball (2008) recommended the strategic use of smaller-sized classes at introductory levels in higher education.

Within the field of our study, instructed second language acquisition, research into the effects of class size on student learning is sparse. Amongst the few studies on class size in the language classroom, Yi (2008) reported that smaller classes were beneficial for US adult foreign language learner achievement, with students outperforming those in larger classes in end-of-course tests of reading, listening and speaking tests. In Asia, Harfitt (2013; 2015) studied the effects of reduced-class size in English classes in Hong Kong secondary schools. Although he did not measure student learning outcomes, he observed positive effects for smaller classes in terms of effective classroom teaching practices and a positive classroom environment. The only study of class size on student achievement in an intensive pre-university ESL program we could locate, however, was that of De Paola, Ponzo and Scoppa (2013) who did not find any positive learning effects for reduced-size English classes, although they found a positive effect on student achievement for reduced-size classes in mathematics in the same program.

Finally, this review of the literature concludes with an overview of what is regarded as 'large-sized' and 'small-sized' classes across a sample of international contexts. It should be noted here that notion of 'class size' in higher education is much more complex than in school settings. Student numbers at university lectures, both in face-to-face and online formats, may vary greatly and include hundreds of students, while courses are also often accompanied by smaller seminars, tutorials or practical sessions. Classes in primary and secondary schools in many parts of the world tend to be much smaller. The same is also generally true for English language classes. In English language classrooms in Hong Kong, for example, Harfitt (2013) defined a 'large' class size as over 37 students, and a 'reduced-size' class as below 27. In the USA, by contrast, research in schools suggests that a class needs to be smaller than 20 for benefits to be seen (Finn & Achilles, 1999). Meanwhile, in his review of studies into the effects of class size on introductory level courses in higher education in the US, Cuseo (2007, p. 11) stated that the 'magic number' of students is 15. By contrast, in Yi's (2008) case study of class size in foreign language teaching, a reduced class contained just 6, while a regular class had a maximum of 10 students.

On the other hand, from the perspective of economically developing countries, Shamim (2012, p. 95) defined a large-sized class as '50 or more students in an under resourced classroom', noting that classroom ecology is as important a factor as the mere number of students in the classroom. Of closest relevance to the language course context of the present study is the long-standing endorsement of a maximum class size of 20 for writing classes - and 15 for writing classes comprised entirely of students for whom English is a second language - by the college section of the National Council of Teachers of English in the US (NCTE, 2014).

Method

This study adopts an embedded mixed method design (Creswell, 2014). We conducted statistical analyses to compare student final course grades in larger and smaller-sized intensive English language classes, to see whether students' academic course results were better in one or the other setting. In addition to this quantitative data, we were also interested in investigating the qualitative dimensions to the lived experience of class size for tutors who taught both the large and small classes, as suggested by Galton (1998). Furthermore, we also surveyed students to gauge how learners experience class size in these contexts. Such a mixed method approach to class-size research has been recommended by previous researchers in this field, including Çakmak (2009).

Responding also to calls for 'more experimentally designed studies' of class size (Wankel & Blessinger, 2013, p. 94), we sought to ascertain if there was a more or less marked class size effect at two different levels of language proficiency, elementary and intermediate. We carefully set up four classes at each level: two 'larger' sized classes (24 students) and two 'smaller' sized (12 students) classes, to which equal numbers of eligible students were allocated. The program's typical class size was 18, and for the purposes of the study, 24 was chosen for the 'larger' sized classes since classes have traditionally been capped at this number for pedagogical reasons and physical space limitations, while 12 was selected for the 'smaller' classes because classes below 12 were typically closed and the students redistributed. The university as a whole has traditionally had relatively small class sizes in comparison to other universities around the world, and there is a perception at the institution that limiting English language class sizes to around 18 is beneficial for students.

To take cognisance of the impact of student motivation on achievement, eligible students were informally rated by their previous term's tutors as 'high', 'medium' or 'low' in terms of observed motivation to learn. For the rating tutors' guidance, 'motivation to learn' was characterised as encompassing both cognitive engagement, as demonstrated by voluntary utilisation of advanced self-regulated learning strategies (Turner, 1995), and academic drive as displayed through 'learning characterised by a mastery orientation, curiosity, persistence' (Gottfried, 1990, p. 525). Following this, a stratified random sampling procedure was used to allocate eligible students to each of the eight classes in order to have a similarly mixed composition in each class in terms of student motivation and achievement. Finally, it may be noted that there was gender homogeneity in the population sample, as all of the students were females.

The study design also took teacher quality into account, as variance in teacher quality was a major factor skewing the outcomes of California's massive class-size reduction program in the 1990s (Felten, 2013). To control for the quality of tutors in this study, the eight who participated were purposively selected from a pool of twenty-three possible tutors on the basis of similar graduate-level ESL qualifications, similar years of teaching experience, and similarly high levels of teaching effectiveness, as measured by previous student feedback and supervisory evaluations. By controlling this variable, we took the effect of the teacher into consideration, influenced by Hanushek's (2002) conclusion from a meta-analysis of

277 class-size studies that teacher quality is of much greater importance than class size in terms of its effect on student learning outcomes.

The participating tutors (A-H) were assigned to teach both a large and a small class (see Table 1) for an eight-week term (160 hours at intermediate language level) or a twenty-week term (320 hours at elementary language level). All classes met for four 50-minute sessions per day, totalling 20 instructional hours a week (one 50-minute session was the equivalent of one instructional hour for workload purposes). Students were also expected to study outside class for approximately an hour per day in preparation for their classes. This consisted mainly of individual rather than group work.

Table 1: Tutor class assignments within the study

Language level	Class	Size	Tutors
Elementary	1	Large	A, B
	2	Small	A, B
	3	Large	C, D
	4	Small	C, D
Intermediate	5	Large	E, F
	6	Small	E, F
	7	Large	G, H
	8	Small	G, H

Tutors taught to a common syllabus and used prescribed textbooks suitable for the different levels. Furthermore, they were encouraged to create, share and use a range of online resources to supplement the textbooks. The use of mobile tablet devices in the classroom allowed tutors to experiment with and incorporate into their teaching suitable educational apps to support language learning. In addition to preparing and teaching classes, tutors were expected to hold a minimum of six office hours per week for student consultations.

At the end of the term, student performance was measured against overall course results (50% final exam and 50% coursework), common final exam results (for listening, reading, writing and lexical knowledge), and coursework grades (assessing a range of language skills against common rubrics). Comparisons were made between student performance in the large and small-sized classes at each language level.

Due to natural attrition, some students did not complete the course: 2 students dropped out of the small group at the elementary level; at the higher level, the number of students not finishing the courses were 3 for the small group and 5 for the large group. However, it was not felt that these relatively small numbers negatively impacted the findings. The student number groupings are located in Table 2.

In addition to the quantitative component, and cognisant of the 'limited measure of course grade alone' (Toth & Montagna, 2002, p. 17), a qualitative dimension was integral to the research design. In seeking to understand the perceptions of students and tutors regarding the *quality* of their language learning/teaching experiences in large or small

classroom settings, questionnaires with open and closed-ended questions were administered to students. To gauge the perceptions of tutors, participants were requested to keep weekly reflective diaries from which they wrote overall end-of-course reflections on their teaching experiences in two different sized classes. Our research design deliberately did not include direct classroom observations in large and small class settings (Harfitt, 2013), in order to allow teaching and learning to proceed naturalistically during the term.

Table 2: Groupings within the study

Language level	Class	Size	n	Tutors
Elementary	2 and 4	Small	24	A, B, C, D
	1 and 3	Large	46	A, B, C, D
Intermediate	6 and 8	Small	21	E, F, G, H
	5 and 7	Large	43	E, F, G, H

Ethical considerations

The research project was granted approval through the University's Institutional Review Board, and standard ethical clearance procedures were followed.

Findings

Student grades

Inferential and descriptive statistics were used to analyse students' course results at the end of the term.

Elementary language level

The data from the elementary language group were analysed using a one-way MANOVA to compare group size and the means of grades in multiple skill areas within coursework results, final exam results, and overall course results. The multivariate result was not significant, $F=1.698$, $df=(53)$, $p=.076$. However, the descriptive data below in Table 3 highlighted some key findings.

Table 3: Elementary language level grade data

Group	n	Coursework M (SD)	Final exam M (SD)	Overall M (SD)	Overall grade	
					S*	U**
Small	24	80% (1.2%)	71% (2.0%)	75% (1.5%)	83%	17%
Large	46	76% (0.9%)	69% (1.5%)	72% (2.0%)	67%	33%

* S - passing grade (70% or higher)

** U - failing grade (score below 70%)

As seen in Table 3, the mean percentage scores (M) for the three categories (Overall grade, Final exam and Coursework) were slightly higher for the smaller groups (three, two, and four percent respectively). Furthermore, 83 percent of the students in small-sized classes were successful (achieving a 'Satisfactory' (S) grade overall), and progressed to the

next level of the program; in the larger classes, only 67 percent of the students achieved a 'Satisfactory' grade and progressed.

Intermediate language level

The data from the intermediate language group were analysed using a one-way MANOVA to compare group size and the means of grades in multiple skill areas within coursework results (coursework included listening, reading, writing, speaking, vocabulary, grammar, and project work), final exam results, and overall course results (the coursework and final exam categories were equally weighted at 50% each). The multivariate result was not significant, $F=1.586$ ($df=49$), $p=.117$. Moreover, the descriptive data as displayed in Table 4 show similar results.

Table 4: Intermediate language level grade data

Group	n	Coursework M (SD)	Final exam M (SD)	Overall M (SD)	Overall grade	
					S*	U**
Small	21	83% (4.7%)	76% (5.9%)	80% (4.6%)	100%	0%
Large	43	83% (4.3%)	77% (5.3%)	80% (4.1%)	100%	0%

* S - passing grade (70% or higher)

** U - failing grade (score below 70%)

As seen in Table 4, the mean percentage scores (M) for the three categories (Coursework, Final exam, and Overall grade) for the small and large classes were virtually identical. Furthermore, 100 percent of the students were successful (achieving a 'Satisfactory' (S) grade overall) and progressed to the next level of the program.

Tutor reflections

The eight expert participants were invited to keep a personal diary, noting their ongoing experiences of teaching large and small classes, and to write a summary reflection at the end of the term. Seven of those tutors provided the researchers with summary written reflections, averaging 642 words. These reflections were read several times and emergent issues were extracted and coded, using colour highlighting. The coded information was then grouped into emergent themes, following established qualitative data analysis procedures (Creswell, 2014; Cohen, Manion & Morrison, 2011).

The first salient finding to emerge from the reflections was that 6 out of the 7 tutors either explicitly or implicitly expressed the advantages of teaching the smaller classes. Although they were asked merely to reflect on their experiences of teaching both groups, four tutors explicitly recommended smaller-sized classes, such as Tutor A who wrote that:

I feel that students (and tutors) benefit substantially from smaller class sizes and in particular at the lower levels, where students have a lot of needs. I would, therefore, recommend smaller classes where at all possible.

In two other cases, the preference was implicit, as illustrated by Tutor E:

The smaller group allowed the tutor to get to know each student better and also give more time to individual students. This is something students value a lot, and they are generally happier in class if they get enough ‘tutor time’, especially for giving individual feedback on their work. In the larger group this was much more difficult.

Tutor G wrote that ‘Overall, the two classes were enjoyable and, hopefully, successful but undoubtedly it was easier to teach and administer the smaller group.’

The one tutor who expressed an overall preference for a larger class also ended his comments by stating ‘... but I do like having the time to address individuals in the smaller class, and like also the ease of control’ (Tutor E). Apart from Tutor E’s preference to ‘plunge in and mix with the students’, the only other positive aspect of teaching a large group was attributable to Tutor B: ‘In terms of disadvantages, I can only say that games seem more lively, competitive and fun with the larger class – albeit harder to manage.’

Perceptions on teaching larger-sized classes, if mentioned by more than one tutor, were collated and tabulated according to the frequency of their appearance (Table 5).

Table 5: Issues reported by tutors in the larger-sized class, by frequency (n=7)

Issue	Frequency
Less individual feedback	6
Less tutor-student interaction	
Harder to monitor students	5
More off-task student behaviour	
Less student-student interaction	4
Longer to get to know students	
Less student responsibility	
More time needed for pedagogical tasks	
Longer to build rapport	
Fewer opportunities for speaking	3
Higher student absenteeism	
More time on technical and admin tasks	
Energy-consuming	2

These issues were then grouped into six emergent themes: feedback, interaction, classroom management, interpersonal relations, student accountability, and tutor time. These were further refined into three core themes, each of which is examined in turn below:

- Pedagogy (feedback, interaction)
- Classroom climate (classroom management, interpersonal relationships, student accountability)
- Administrative efficiency (tutor time)

Pedagogical issues were most frequently cited by tutors, with 6 of the 7 tutors writing that they found difficulty in providing individual feedback in the larger classes, versus the

relative ease of this in the smaller classes. 'I can actually provide more timely feedback and/or interventions and I can target specific needs', wrote Tutor B of the smaller class, while Tutor H noted that 'It was harder for me to find time during the week to have individual conferences with every student and group.' Moreover, the same number of tutors highlighted more opportunities for interaction in the target language within the smaller classes. 'I believe that there were many moments when the students missed the opportunity for oral interaction both with the tutor and with their classmates', commented Tutor G on the large class she taught.

In terms of classroom climate, 5 of the 7 tutors noted issues of classroom management with the larger-sized classes. Tutor E wrote that 'More energy, more strategy is required to keep the larger class on task and to maintain a balance for the quiet and noisy learning styles', while Tutor E noted that larger class are 'more tiring for the teacher!' Moreover, tutors reported that students seemed more engaged in the smaller-sized class, as evidenced by spending more time on task, while in the larger class, it was 'more difficult to ensure every student was on task' (Tutor C). In addition, it took longer to learn individual students' names at the start of the course in the larger class, and as Tutor G noted, 'Although it may seem like a minor issue, it can have an effect on their understanding of their importance in the eyes of this new teacher'. Four tutors also commented on the low level of interaction between the students themselves in the larger classes, evident in a reluctance to engage in pair or group work outside of the immediate friendship circle. As Tutor A explained 'I ... feel that the rapport between the students in the larger class is not as strong ... they don't know each other as well as the students in the smaller class.' Three of the tutors pointed out that there were more student absences in their larger classes, while four noted that students may have felt less accountable within the larger class as it may be easier for students in a large group 'to hide or fall under the radar' (Tutor A).

The third thematic cluster relates to the use of administrative time. In the larger class, it took twice as long to run mid-term progress interviews and speaking assessments, at the expense of teaching input, noted Tutor F. Furthermore, 'Routine tasks like taking the register, checking who has done the homework or following up on tasks after absences, all take up a lot more time in the larger class', wrote Tutor A, who also observed that setting up and monitoring student learning tasks in the classroom was more time-consuming. At the time of the study, every student and tutor had just been provided with a mobile tablet device which they were expected to use for all teaching and learning activities in the classroom, and three tutors noted the extra demands caused by this in the larger class: 'Apps load faster and run without signals dropping out in the smaller class', wrote Tutor B. The two other tutors highlighted the time taken at the start of the course to set up student access to hardware and software, as well as the technical issues experienced by students that they tried to help resolve there and then, in order for students to participate in class activities.

Student experience

At the end of the course, students completed a brief online survey of their learning experiences during the term. A descriptive statistical analysis of the survey results showed

that students in the intermediate language level course who completed the survey ($n = 59$) were overwhelmingly in favour of smaller-sized classes, believing that they learn better when there are fewer students in the class. For example, when asked if 12 students in a class is 'too many', 'about right,' or 'too few', based on their experiences as a learner in either a small or a large class, 85 per cent of intermediate-level students agreed that 12 students in a class is 'about right'.

When prompted by an open-ended question to give reasons for this, the most frequently cited reason was in relation to 'congestion effects' (De Paola, Ponzio & Scoppa, 2013), that is, noise and distraction caused by other students which affected concentration: 'It's too hard to concentrate with too many students', as one student explained. Furthermore, in large classes, students noted that classroom management issues could be challenging for the tutor: 'Lots of students disturb each other, and the tutor can't control a huge number of students and then we can't understand well'. In addition, and corroborating the tutors' comments cited earlier, the provision of individual feedback in smaller classes was recognised: 'The teacher can help each student and listen to her', said a student. Moreover, being able to make friends easily and being able to work with other students were also pinpointed as desirable features of a smaller class.

When asked to select the 'best class size for this course' in response to choices offered on a scale from 8 students to 32 students, the vast majority of students chose either 12 or 16 students as the ideal number (Figure 1). No student selected 32 students as an optimal class size, and only one out of the 59 intermediate language level students stated that a class size of 28 students was 'the best class size', without providing any explanation for this choice. In addition, one student who selected 24 as 'the best class size' did not provide a clear reason for this choice, merely noting that 'Because in our class now approximately between 22-24 and it's good.' There were no other supportive comments in favour of a larger-sized class at this level.

The best class size in the ABP is ____ students.

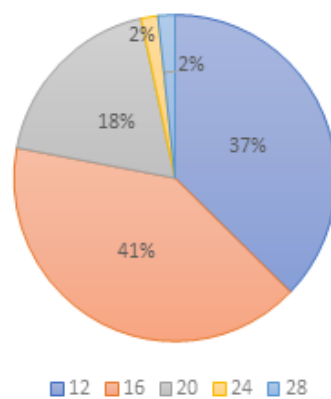


Figure 1: Intermediate language level students' opinions on the optimal class size

A similar preference was reported by the students in the elementary language level class who completed the same survey (n=60). They too believed that they learn better in a smaller-sized class: 80 percent of students agreed that 12 students in a class is 'about right', very similar to the response from the intermediate language-level group. There was also a particularly marked distaste for larger-sized classes evident amongst students at the elementary language level: no-one agreed that 24 is 'about right'.

Regarding the open-ended responses at this level, reasons for preferring smaller-sized classes were similar to those offered by students at the intermediate language level: less noise was the most frequently cited reason, followed in turn by ease of focus and greater attention to the lesson. Ease of understanding, making friends, and classroom management for the tutor were also cited. As one student neatly summed up: 'Because fewer students greater the understanding and success' (sic).

As in the case of the intermediate language group, a large number of students chose 12 and 16 as the 'best class size' for learning (Figure 2). Only five students out of 60 selected '24' from a range of options. Confusingly, one of this small group of students contradicted her selection of 24 as the optimal size by writing 'because I love small classes', thus suggesting an error in selecting 24. The other respondents provided little or no information to support their choices.

The best class size in the ABP is ____ students.

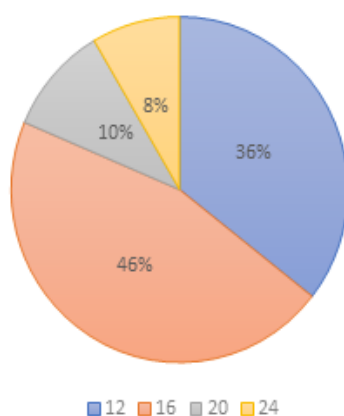


Figure 2: Elementary language level students' opinions on the optimal class size

Discussion

Despite some variation in average scores for the three categories (Coursework, Final exam, and Overall grade), based on the quantitative results, there were no significant differences in achievement when analysing overall percentages. However, in contrast to the findings of De Paola, Ponzio and Scoppa (2013), there was a key difference in students passing or failing the course based on their class size at the elementary language proficiency level. A greater percentage of students in the smaller classes at the elementary language level passed the course and moved to the next level in the program. However,

this result was not found in the intermediate language proficiency level. This may be due to several factors that may need to be investigated including, but not limited to, overall attitudinal and motivational differences in students at different proficiency levels, pedagogical needs of students at varying levels, curriculum requirements at the different program levels, and the number of teaching hours in the course (the higher proficiency students were in a shorter term course).

The results of the students' survey indicate that smaller-sized classes are much preferred overall, and suggest that smaller-sized classes are even more important for elementary language-level students. Both sets of students appreciated a classroom climate more conducive to learning in terms of distraction levels and student behaviour, as well as the cultivation of relationships with peers. This is probably not surprising given the fact that interpersonal relationships are highly valued within Emirati society.

The tutors in our study also indicated a strong preference for smaller-sized classes, clearly articulating differences in their pedagogical approach between the two classes. Favourable pedagogical factors they identified in the smaller-sized classroom included enhanced feedback to students, greater interaction opportunities, and more time on task. Overall, our findings regarding the perceived more conducive socio-pedagogical climate in smaller-sized classes in pre-university intensive English language classrooms concur with Finn's (2019) review of studies highlighting the non-cognitive benefits of small classes at school level.

Conclusion and recommendations

To conclude, this investigation into class size in an intensive pre-university language program found that a higher percentage of students in the elementary language level succeeded in smaller-sized classes, and that tutors and students overwhelmingly preferred smaller-sized classes. Furthermore, while not statistically significant, the difference in pass rates for elementary language level students in the smaller classes is suggestive of the fact that they may have benefited from the advantages of smaller classes alluded to by the students and tutors, namely more opportunities for individual attention and tutor feedback.

The generalisability of the quasi-experimental component of this study is limited by its confinement to eight classes of female students within the same setting. Another possible study limitation is that although the students were not informed that they were participants in a research project, the tutors were aware of this, and they may have reflected overly negatively on the experience of teaching the larger classes.

Based on the findings of this research, in terms of optimal student numbers within a language classroom, we recommend that there be cognisance of the benefits of smaller classes at the elementary language level. Nevertheless, since each context will have different needs based on a multitude of factors, a program will need to carefully consider its specific situation, analyse the results of different class sizes on students and on teachers, and make informed program decisions based on those findings.

One major factor affecting a program's decision to reduce class sizes is likely to be the additional costs involved for the institution. Therefore, if the goal is to enhance student academic performance, it may also be necessary to consider other ways of optimising learning experiences by, for example, strengthening learner independence and self-efficacy, adopting alternative assessment methods and utilising educational technology. Consequently, further research aimed at enhancing student performance in different educational contexts would not only be recommended in relation to class size reduction, but also with reference to other factors that influence teaching and learning contexts. A particularly rich source of data for such research can be found in student evaluations of teaching, which offer an important feedback mechanism for every course.

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