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COMMUNICATIVE language teaching focuses on the use of language in the classroom in the form of communicative activities. This is based on the idea that practice makes perfect; the more communication students experience in the classroom, the better communication skills they will develop. This in turn has resulted in an increase in the use of both cooperative and collaborative group activities in language classrooms around the world. In many institutions around the world it is now rare that a learner works on an activity alone without discussing it with a partner or in a group. How much thought goes into the process of forming groups? If a teacher uses the same group size consistently does this fulfill learner needs? Intuitively, it seems that different learners have different preferences and that different group sizes are suitable for different kinds of activities. The present study looks at the ideal group size for a university first-year reading course. Pedagogical and social perspectives are both considered. The research questions for this study are: (a) Which group size is the most effective in terms of maximizing comprehension? and (b) Which group size do learners prefer to work in?

Literature Review

“Scholars of small groups often debate the absolute size of a small group. The fewest number, three, is generally agreed upon (although some scholars do not distinguish between the dyad, two, and the group of three or more).” (Barker, Wahlers, & Watson, 1995, p. 7)

A review of the literature regarding group size shows that there is little agreement as to what size is ideal. In the field of English language teaching, there is a tendency to promote the concept that four is the ideal group size. “Team or group size may vary from two to six or more per team. We prefer teams of four...” (Olsen & Kagan, 1992, p. 14). The pedagogical value of groups of four is commonly referred to both in the literature and by teachers; however, there is little, if any, empirical evidence to support this idea.

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Group size in the reading classroom

Keywords

group size, classroom dynamics, reading comprehension, small groups

In English language teaching, there is a tendency to promote four as the ideal group size. Outside of the field of English language teaching no particular group size seems to be favoured. Although the primary purpose of small groups in the classroom is pedagogical, there are also social aspects which must be taken into account. As educators, we need to find a balance between making learners feel comfortable in order to increase their confidence and maximizing language acquisition, which may entail pushing learners beyond their comfort zone. The present study examines group size within the context of an English language reading programme. The learners completed reading comprehension activities in groups ranging from two to six members. Scores on the reading comprehension activities were collected. The learners also completed questionnaires about their preferences regarding group size. The results from the questionnaire were compared with the reading comprehension scores.

英語教育では、4名のグループを理想的とする傾向がある。英語教育以外では、そういった傾向は見受けられない。クラスでの小グループ形成は教育的であるが、考慮すべき社会的側面も存在することを頭に入れておかなければならない。私達は教育者として、学習者の自信を増進させるために、彼らを快適な環境に置くことと、言語習得を最適化するために「快適」ゾーンの外へ学習者を押し出すこととの間のバランスを探る必要がある。本論では英語リーディング・プログラムにおけるグループのサイズについて検証している。学習者は2名から6名のグループでリーディング学習活動を終え、その学習活動のスコアが集計されている。学習者はグループのサイズに関するアンケートも完成させ、そのアンケート結果とスコアの結果が比較されている。

more than one writer. “[T]here is a positive relationship between the level of people’s participation and the degree of their individual satisfaction...as the size of the group increases, the opportunity to interact with other members decreases” (Beebe & Masterson, 1994, p. 117). Beebe and Masterson conclude that to have more people in a group is not necessarily better and they suggest a group size of around five to seven.

Napier and Gershenfeld (1993) state that it depends on the relationships within the group. In a pair, only one relationship is involved but as the group size gets larger there are exponentially more relationships at work within the group. For example, in a group of six there are 301 possible relationships at work. This does not mean that a larger group size is less effective but it does increase the possibility of problems occurring. In an English language classroom any problems present are likely to lead to a breakdown in communication which could in turn prevent the completion of the task at hand. Napier and Gershenfeld go on to say that a large group is more likely to break up into smaller groups. As the group size increases, along with the decreasing opportunities for participation, there is also the possibility of a decrease in motivation.

Wilson (1999) worries about the role of power within groups. He states, “When three people join together, they create a unique environment because of the ability of two members to unite and exert pressure on the other” (p. 7). This issue seems to be unique within the group of three and is one possible reason for avoiding groups of three.

What is apparent through the literature is that although the primary purpose of small groups in the classroom is pedagogical, there are also social aspects which must be taken into account. As enjoyment of group work increases, so too does motivation to do more group work. As educators, we need to find a balance between making learners feel comfortable in order to increase their confidence and maximizing language acquisition, which may entail pushing learners beyond their comfort zone. Furthermore, a learner-centered classroom approach needs to take into account all student learning preferences. As well as preferences related to course content, many learners also have preferences relating to classroom organisation and culture.

Method

This paper represents an exploration into what effect group size has on an English reading course. The present study was carried out in the first semester of a 1st-year reading course. Each week, learners were given an episode from a story along

with ten reading comprehension questions to answer in groups. The materials were developed in the English language Institute of Kanda University of International Studies by the Skills Collaborative Research Committee. The reading comprehension questions were very difficult to answer as they required not only literal comprehension but also the application of reasoning and some background knowledge. They “differ from traditional reading comprehension questions in that they are designed in a way that students are forced to negotiate the meaning of the text as opposed to simply ‘testing’ their understanding of what they have been asked to read” (Galloway, 2007, p. 29). An extract from the first reading comprehension exercise is included in Appendix A. In addition to the reading comprehension questions, pre-reading and post-reading activities were carried out in the classroom to assist text comprehension.

The participants in this study were 55 first-year learners at Kanda University of International Studies. All of the students were English majors and the data were collected during the first semester of their 1st-year reading course, a required course for English majors. The data were collected over a period of ten weeks. The learners were instructed to discuss each question until they reached a consensus about what they thought the correct answer was. Asking them to reach a consensus was one way of letting learners know that the purpose of the group work was to have as much communication and negotiation as possible rather than a division of labour.

Although some people see pairs and triads as inherently different from larger groups, in this study the data were all treated in the same way. Therefore, for the purposes of this study, pairs and triads will be referred to as groups of two and groups of three. To measure the pedagogical value of different group sizes data were collected on group sizes and scores on the reading comprehension activities each week. To measure the social value of group size, learners were asked to complete a questionnaire at the end of semester. In the questionnaire, learners were asked to give their feelings about working in different sized groups. The results from the questionnaire were compared with the reading comprehension scores.

Results

Questionnaire

The questions were:

1. What group size do you prefer?
2. In which group size do you have the most

fun?

3. In which group size do you feel shy?
4. In which group size do you succeed (get the right answers)?
5. In which group size is it most difficult to succeed (get the right answers)?
6. In which group size do you understand the reading text best?
7. In which group size do you have the most difficulty understanding the reading text?

For a tabulated representation of student answers to the questionnaire, please see Appendix B. The most preferred group size amongst the students in this study was four; the least preferred were working as a whole class and working alone. In terms of enjoyment, groups of four were preferred, and the least preferred were working alone, in groups of two, and as a whole class. In terms of student perceptions regarding their ability to understand the text and successfully answer questions, groups of four came out on top and working alone and as a whole class were the least preferred. So we can see that students seem to prefer groups of four, but what is unclear is whether this is because they have become accustomed to working in groups of four or whether it is a natural preference. One third of the students stated that they feel shy when working in a group of two. This could be a result of the extra output required in this situation; there are only two people present, so each has to contribute around 50% of the discussion. Learners may feel this places too much demand on them in terms of the amount of speaking. What is shown quite clearly by the questionnaire results is the preference for group work in general. Regardless of which group size the learners are in, they state that it is much easier than working as a whole class or working alone.

Learners were asked to add any other comments they had regarding group size. Several wrote that it depended on who the members were; with some

people a large group is a lot of fun, but others work better in smaller groups. Also, several learners commented that smaller groups were better because it was sometimes necessary to meet outside of class to complete activities that had not been completed during class. In such cases, with larger groups it was difficult for learners to organize a meeting time. Several also commented on the value of doing group work outside of the classroom. They enjoyed meeting and talking to people they would not usually talk to in a more relaxed environment such as in the canteen at lunchtime. This could have increased the bond between the learners during class time as well.

Analysis of scores

There are many confounding factors when looking at group size from a pedagogical perspective. The two most salient confounding factors are the difficulty of the different reading comprehension activities and variation in learner ability. To control for the difficulty of different reading comprehension activities, as many different group sizes as possible were used each week, while all the learners were working on the same reading comprehension activity. The ability of each learner would appear to have the strongest influence over the results. In order to eliminate possible variation of scores relating to personal ability the mean score for each learner over all ten reading comprehension activities was calculated, as a learner who is lower in ability is likely to be lower in ability no matter in which group size they work, likewise with a learner who is higher in ability. After that, individual learner mean scores for each group size were calculated. The score for analysis was the difference between a student's mean score and their score in each group size. For example, if a learner's mean score was 7.2 out of 10 and their mean score when working in groups of two was 8 out of 10, then 0.80 would represent that learner's value for groups of two. That is, that learner achieved on average 0.80 points higher when working in groups of two than in other

Table 1. Mean reading comprehension scores for the different group sizes

Group size	Mean	Std. Deviation	Std. Error	Minimum	Maximum
2	0.44	1.08051	0.15130	-1.97	2.83
3	-0.3000	1.56255	0.21880	-2.81	6.40
4	-0.3271	1.28250	0.19118	-5.71	2.12
5 or 6	1.1639	1.09288	0.16476	-3.00	3.05
Total	0.2996	1.37882	0.1	-5.71	6.40

group sizes. If the same learner had a mean score of 6.25 out of 10 when working in groups of five, then the figure -0.95 would represent their score for groups of five, meaning that when working in groups of five the student achieved on average 0.95 points lower than their overall average score.

Post-hoc tests were used to determine within which group sizes learners scored significantly higher or lower than their personal mean score. The results are shown in Table 2.

Discussion

From a social perspective

It seems quite clear that the learners in this study prefer to work in groups of four. The questionnaire data showed they had the most fun in groups of four and not many reported feeling shy in these groups. Learners also felt they are more easily able to succeed in groups of four, with the fewest number feeling unable to succeed (4%). In terms of understanding the reading text, learners also felt that groups of four were the best and the fewest number reported feeling unable to understand the text (2%). Interestingly, none answered that they felt shy in a group of three.

It is also clear that the majority of learners dislike working alone; only 2% reported preferring this.

No one answered that they have fun when working alone. The largest number felt unable to succeed or understand the text when working alone. Certainly there are times when learners are required to read alone, notably when the reading is done for homework. If learners feel unable to succeed with reading comprehension questions or reading comprehension itself when working alone, then perhaps we should minimise the amount of intensive reading that needs to be done alone and maximize the use of groups in the reading classroom. There were many positive comments from learners about working in groups, even when it required meeting outside of class and doing homework in groups.

From a pedagogical perspective

If one were to make a continuum of group size from the most success to the least success achieved by learners within this study, it would look like this:

$$5/6 > 2 > 3 > 4$$

When learners were working in groups of five or six they did significantly better than working in groups of two, three or four. When working in groups of four they did significantly worse than in groups of two and five/six and worse than in groups of three, but the difference was not significant.

Table 2. Comparison of scores between the different group sizes

Bonferroni		Mean difference (I-J)	Std. Error	Significance
(I) group size	(J) group size			
2	3	0.46647	0.25257	0.398
	4	0.76358	0.26085	0.023*
	5/6	-0.72739	0.26242	0.037*
3	2	-0.46647	0.25257	0.398
	4	0.29711	0.26085	1.000
	5/6	-1.19386	0.26242	0.000*
4	2	-0.76358	0.26085	0.023*
	3	-0.29711	0.26085	1.000
	5/6	-1.49097	0.27040	0.000*
5/6	2	0.72739	0.26242	0.037*
	3	1.19386	0.26242	0.000*

* The mean difference is significant at the .05 level.

It is interesting that although learners feel that they are able to succeed and understand the text best in groups of four, they failed to achieve high scores in the reading comprehension activities in groups of four. This shows just how important it is to take account of both social and pedagogical perspectives when considering the issue of group size.

Conclusion

Although groups of four are often suggested as pedagogically ideal, this research demonstrates that this suggestion cannot be applied across the board in all educational settings for all activities. For some courses, groups of four may give learners a disadvantage. In the case of this freshman English reading course, pedagogically learners performed best in groups of two and five or six. Within the context of this course, putting learners in groups of three or four exclusively may disadvantage them.

On the other hand, it is apparent that learners enjoy working in groups of four. Furthermore, from the questionnaire data we can see that learners have very different preferences. If 14% of the learners prefer to work in groups of three, is it acceptable to ignore their preferences in favour of the 50% who like groups of four? How can we balance learner preferences with the organization which is the most effective pedagogically? In the freshman English reading course in which this study was carried out, learners did a variety of both pre-reading and post-reading activities to assist comprehension of the text. In this situation, perhaps it would be best for learners to carry out the pre-reading and post-reading activities in groups of three or four and then work in groups of five or six for the main event, the reading comprehension exercise, around which all the other activities are centred. Carrying out the pre-reading and post-reading activities in groups of three or four means that students have the opportunity to experience a group size they prefer, fulfilling social needs. Working in groups of five or six for the reading comprehension exercises, which in the context of this course were the most important activity, answers pedagogic needs by facilitating student comprehension of the text, potentially leading to better scores on reading comprehension questions.

Clearly, one group size will not work for all learners in all courses and all educational settings. It is in the best interests of everyone involved that teachers vary group sizes, giving learners opportunities to work with different people as well as different numbers of people to give them a broader language learning experience.

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Appendices

The appendices for this article can be downloaded from <jalt-publications.org/tlt/resources/2009/0905a.pdf>

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