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Transitioning to Large Language Classes and the Use of Technology: University of Guelph

I. Introduction

The University of Guelph (UoG) is a medium sized, comprehensive University in Ontario, Canada, with a total enrolment approaching 20,000 students at the undergraduate and graduate levels. By the early 2000's, the university system in Ontario was suffering the accumulated effects of several years of reduced government funding. In response, university administrations across the province focused on increased class sizes as a means for managing their economic woes.

In 2002, the administration at UoG mandated that the Spanish Studies programme must prepare to offer Introductory Spanish (SPAN 1100) in classes capped at 90 students instead of the traditional 45. This change would address the general lack of funding by cutting in half the number of Faculty needed to teach the course. At the same time, it would address the administration's additional goal of reducing the number of occasional Faculty hired to staff up to 10 sections of SPAN 1100. Spanish Studies Faculty immediately opposed the change in class size and in 2003, an external consultant, Dr. Dennie Hoopingarner, Director of the Language Learning Center at Michigan State University, was hired by the administration to evaluate the Spanish Program at UoG, to comment on the proposed shift to larger classes in SPAN 1100 and to make recommendations for their implementation. It should be noted that at UoG, which has no undergraduate language requirement, the French and German studies programme had already been mandated to move to larger classes at the introductory level, and had implemented the change.

Hoopingarner advised that the activities which lead to second language acquisition are best realized in small classes. He shared the Faculty's concerns and cautioned that larger classes would have negative effects on enrolment numbers, student achievement, language proficiency and the number of students declaring a major in Spanish. The economic gains, in his opinion, would probably be offset by long term negative effects. In addressing ways to effectively implement the large classes, Hoopingarner highlighted the inclusion of technology to support the teaching and acquisition of all language skills, the need for a well equipped language lab with appropriately qualified personnel and the creation of focused small-group meetings for students on a weekly basis.

After receiving the report, the administration proceeded with its plans and in September 2005, SPAN 1100 was offered in classes capped at 90 students, with some of Hoopingarner's recommendations in place. In anticipation of the new delivery format, the administration invested heavily to re-structure the College of Arts Media Centre, which houses language learning materials and equipment. Classrooms were upgraded to allow for enhanced use of technology. Financial resources were dedicated to the creation of electronic course materials and to purchasing the Wimba Voice Tools package, a product which allows students to perform out of class oral activities. Funding was also provided for two Exchange Teaching Assistants from Spain to lead small seminar groups.

As Table 1 shows, our implementation of the new model included, in addition to the existing 3 contact hours with the Instructor, an extra hour of small-group seminar with a Teaching Assistant which would ideally increase L2 input and output time per student. The evaluation changed from 3 midterm exams, quality of participation and a final exam to I midterm exam, 7 on-line quizzes, a seminar grade, quality of participation and a final exam. Perhaps the most significant change in our model was the compulsory implementation of technology, including the hitherto optional PowerPoint presentations to deliver lectures, WebCT for online quizzing, asynchronous computer mediated chat using Wimba Voice Tools, audio, video and additional Internet based activities. Students were assigned Web based voice assignments several times during the semester, and a collection of course related activities was deposited on the course website to reinforce the material covered in the lectures. WebCT conferencing became a normal means of communication among students as well as between Instructors or Teaching Assistants and students. Given the multiple sections of the course, all course related announcements were also delivered via WebCT. In order to access much of the information and to perform some of the Web based activities, in particular voice recordings, students made use of the resources in the Media Centre.

Table 1. Comparison between old and new formats of Introductory Spanish (Span 1100)

	Old	New
Class size	• 45 students	• 90
Contact hours	• 3 classes (50 mins.) per week	• 3 classes (50 mins.) per week • 1 small group seminar (50 mins. per week), with TA (capped at 15 students)
Evaluation	• 3 tests (50%) • Quality of participation (10%) • 1 final exam (40%)	• 1 midterm exam (25%) • On-line quizzing (12%) • Seminar grade (15%) • Quality of participation (08%) • Final exam (40%)
Use of technology	• At the discretion of each Instructor. • Some PowerPoint, WebCT. • Overhead transparencies.	• PowerPoint used in most lectures • On-line quizzing (to replace some in-class tests) • Course content hosted on course website in WebCT • Publisher's electronic material used by students for self-testing and self-correction • Audio, video and Internet based activities in seminars • Wimba: a suite of Internet based tools allowing a variety of oral activities between student and Instructor

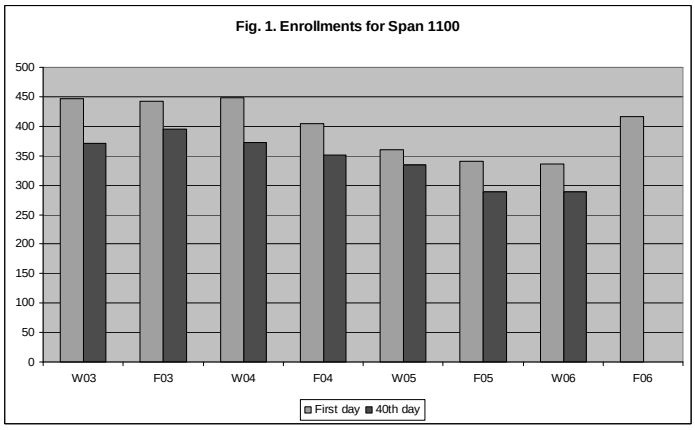
II. Background and Methodology

As Hoopingarner cautioned in his report, the body of research in language acquisition overwhelmingly rejects the notion of large language classes. The Association of Departments of Foreign Languages (ADFL) "reaffirms its position that the maximum class size for foreign language instruction in classes where all four skills are equally stressed should not exceed 20. We hold that the optimum class size is 15. In any case, particularly at the elementary and intermediate levels, class size must be small enough to enable -- rather than to inhibit -- the kind of effective interaction between teacher and students necessary to developing proficiency in the language." (ADFL Bulletin 32, No. 3, p. 93). Additionally, MLA guidelines suggest that in order for language classes to be effective, enrolment should be between 12 and 20 students. For Schlenker (1994), class sizes of 16-30 are optimal. The body of SLA research also expresses concerns about the impact of large class size on student performance and achievement. While some studies suggest that at the college level, class size may have an impact on student achievement, others suggest that it might not (Bolton: 2001). However, Bolton does mention that there is additional literature suggesting that class size may have an effect on the students' attitude. In a survey on the perceptions of students enrolled in large classes across various disciplines, Doran reports that students did not enjoy the large class format because, among other issues, the classes did not allow for sufficient interaction between students and Faculty (Doran: 1998). The California State University Foreign Language Council (CSU-FLC) stresses that the necessary L2 input, guidance, correction from the Instructor and the interaction needed between Instructor and student in order for critical thinking skills and cultural appreciation to occur, is seriously jeopardized by the introduction of large class sizes. "Increasing course enrolments in language courses is not merely an additional burden for the teacher; far more importantly, it prevents the students from experiencing sufficient meaningful practice in the language and results in a dangerous shift in the nature of the learning experience" (http://www.sonoma.edu/users/t/toczyski/csuflc.html).

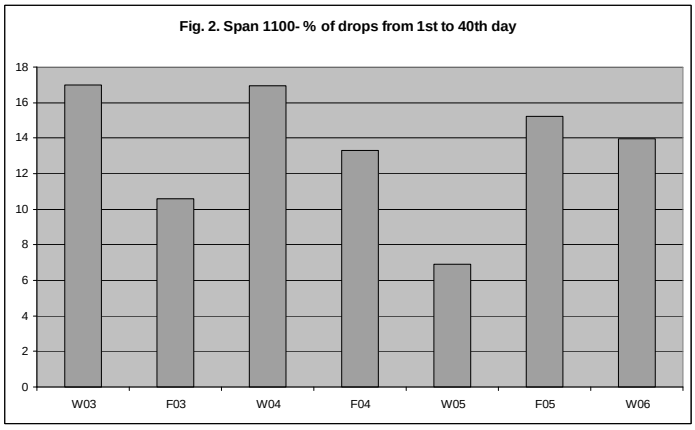
Cognizant of the accumulated research on SLA and large class size, we set out to assess the impact of the larger class size on our program in terms of continuing student enrolment in SPAN 1100 and intermediate Spanish SPAN 1110, for 6 consecutive terms starting in fall 2004 and ending in winter 2006. Some data from W03 is included for further reference when needed. We also examined the attrition rate from SPAN 1100 to SPAN 1110 to find out how many students actually continued from one level to the next. In addition, we compared final grade averages at the beginner level course before and after the implementation of the larger 90 student class in fall 2005. Finally, a questionnaire was administered to the SPAN 1100 students at mid semester that assessed the students' learning experience in the course and their perceptions. The questionnaire consisted of 12 sliding scale questions (where 1 was "strongly agree" and 5 was "agree least") which elicited the students' responses on class size, course materials, evaluation methods, technological components of the course, ability to participate during lectures, output performance during seminars and general satisfaction with the structure of the course. In addition there were 2 open ended questions that allowed students to comment on what they found to be the positive aspects of the course and give their recommendations for the course.

III. Findings

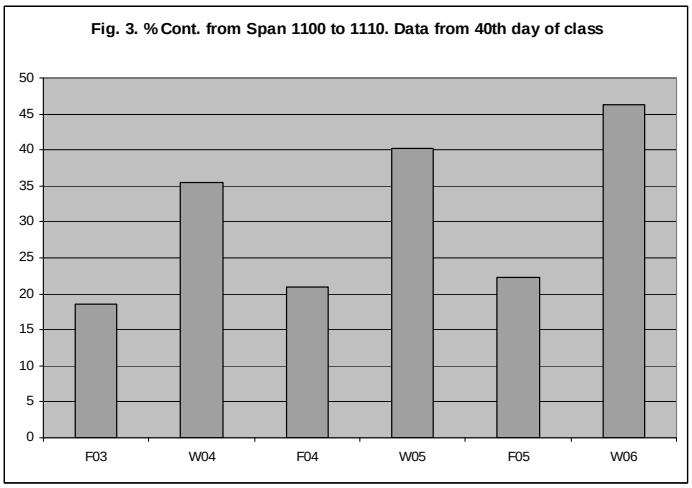
The enrolment numbers for the period under study indicate that enrolment in SPAN 1100 usually ranges between 300 and 450 (Fig. 1). In fall 05, the semester in which the new model was first implemented, and winter 06, the subsequent semester, we experienced our lowest enrolment rates. This could be possibly be explained by the fact that at a cap of 90 students per section, the number of sections offered was reduced from 10 to 5, thus limiting the time slots available for students to register.



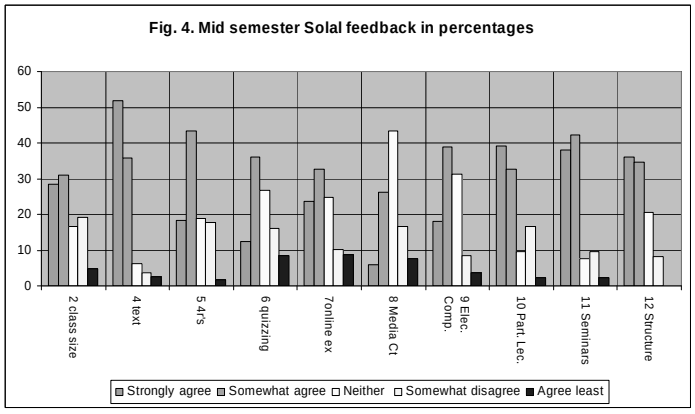
According to the literature on SLA and larger classes, we expected that in the larger class size of fall 2005 the attrition rate at the 40th day of class would have increased, but in fact it is lower than the rate recorded in winter 03 and winter 04 (Fig. 2).



Since attrition rates by the 40th class day were not dramatically higher, we examined the enrolment figures for the subsequent level, Intermediate Spanish (SPAN 1110), in order to observe the impact the large beginner class had on the registration levels. We observed that in fall semesters from ‘03 to ‘06, there has been a steady increase in the overall SPAN 1110 enrolment of approximately 20%. In the winter semesters, enrolment has increased from ’04 to ’06 by approximately 12%. (Figure 3 below). In fact, winter 06 shows the highest percentage of students continuing to 1110. These results are again unexpected and are incongruent with the research on second language class size, which would have predicted a drop in enrolment levels for students continuing into 1110 from the larger fall 1100 course in fall ’05.



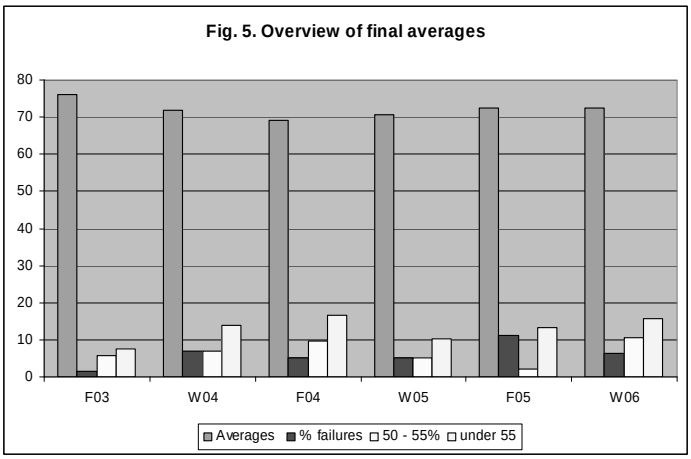
Another aspect that we considered important to analyse in our study was our students' perceptions about their learning experience in the large sections of SPAN 1100. The results of the mid-semester survey (detailed above) show that approximately 60% of the students somewhat agreed or strongly agreed that the class size allowed them to fulfill the learning objectives of the course. Only 22% disagreed and gave this question a rating of 4 or 5. With respect to the frequency of online quizzing, approximately 50% of the respondents answered positively and 25% answered negatively. Students were most indifferent in their responses to questions 8 or 9, in reference to the Wimba Voice tools electronic assignments and use of the Media Centre, with approximately 45% of respondents neither agreeing nor disagreeing that these were beneficial aspects of the course. At a rate of approximately 75%, students overwhelmingly replied that they were able to participate in class, ask questions and have their questions answered during the large lecture. Another significant response is that approximately 80% of the students felt that the seminars provided them adequate oral practice (Fig. 4). The results for Figure 4 demonstrate in general that the large classes have not had a negative effect on students' perceptions of their experience.



In the open ended section of the questionnaire, students had the option to comment on the positive aspects of the course and give recommendations. Of those who made recommendations, 13.52% made specific mention of the large class and said that it prevented them from participating orally. Almost double that amount, or 25.29% of the respondents said that they found the class size favourable, and allowed for participation, question and answer and L2 output in the lecture and especially in the small seminar groups.

Finally, we examined the students' final grades as well as the failure rates in order to find out what effect the larger classes had on student achievement levels. Figure 5 is an overview of final grade averages in SPAN 1100, percentage of failures, percentage of students who received a grade between 50 and 55, and a combination of the two. Grades between 50 and 55 are examined because we consider that although it is a passing grade, it does not necessarily mean that the student has attained a suitable level of proficiency, and for purposes of functionality in the language, they would be considered unsuccessful. We observed that the average final grade obtained by students who completed the course over the last six semesters has been fairly consistent at an average of 71%. So, final grade averages were not adversely affected by the change in class size. Another observation is the rate of failures, which, though at their highest in F05, drops in W06 to levels seen in earlier semesters. In addition, the percentage of students who obtained a grade below 55% is somewhat higher in semesters W04 and F04, dropping to about 10% in W05 and increasing again over the next 2 semesters, reaching just over 15% in W06. What is significant about all of these observations is that our study provides no clear indication that final grade

averages, failure rates or the number of under 55% passing grades increased after the larger class was introduced, thus placing us in the group referenced by Bolton where large class size did not appear to affect student achievement.



IV. Discussion and conclusions

The results obtained in this analysis are incongruent with most of the literature on SLA and large classes. As the data show, our program has been successful in spite of the large numbers. However, the most significant observation is that our institution's notion of a small class is considerably different from what the literature on class size and SLA recommends. This fact renders our results inconclusive because we started out with large numbers. The results obtained herein indicate that the general attrition rates from the 1st to the 40th day of class do not vary significantly after the implementation of the larger classes, nor has the rate of failure. Since F03, there has been a continuous increase in the enrollment levels in intermediate Spanish (SPAN 1110) and this trend continues. According to students, the larger class is not disadvantageous and it does not hinder the opportunity for L2 output or their ability to participate in class. It is possible that UoG students are well accustomed to life sciences and social sciences classes where enrollments in first year courses can range from 100-500, and SPAN 1100 may be a welcome change. This does not mean, however, that we have been able to provide our students with the optimal input, intake, interaction and feedback as is recommended. Further research needs to be conducted where students' achievement in more advanced classes is considered, and most importantly, with truly small classes whose results will serve as a frame of reference for the points analysed in this study. It would also be useful to compare our students' proficiency levels upon completion of the intermediate level with those of other institutions where class numbers are under 25.

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