

Team Teaching: A survey of 50 courses in the Faculty of Arts and Science at the University of Toronto with more than one instructor

Prepared by the University of Toronto Faculty Learning
Community, July 2006.

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Executive Summary

The Faculty Learning Community conducted a survey to investigate team-teaching methods within the Faculty of Arts and Science at the St. George Campus of the University of Toronto. Fifteen departments participated in the voluntary survey, and more than sixty faculty members were individually interviewed. Data relating to both factual information (eg. enrolment statistics, number of instructors involved, team-teaching model) and interpretive data (perceived advantages/disadvantages, faculty impressions of student experience, recommendations/warnings) were collected and analyzed.

The results of the survey and interviews were presented to and feedback solicited from more than eighty participants at the University of Toronto Faculty Association's conference on *Scholarship, Leadership, and Innovation* and at the international conference on *Knowledge and Its Communities* hosted by the Society for Teaching and Learning in Higher Education.

Some key findings included: many courses are team-taught using the "serial" method; faculty placed a high value on the mentorship and collaboration aspects of team teaching; depending on the circumstances, team teaching led to both an increase or decrease in instructor workloads; many faculty felt the serial team-teaching method was not advantageous to first-year students in large classes; and we need to survey students in all years to see how team teaching affects the student experience.

In addition, we were offered many suggestions by instructors who had taught courses as part of a team and these are listed below. Their recommendations are not always consistent, but they are clearly based on experience.

Do:

- Work with people you know, respect and like.
- Try to achieve a consistent approach: course content, academic aims and vision, level, work expected from students.
- Teach similarly: presentation style and format, reliance on text vs readings, level of responsiveness, email replies.
- Share content to reduce duplication and smooth transitions.
- Anticipate a period of trial and error as you learn to coordinate with each other.
- Make sure you coordinate so that things don't fall through the cracks.
- Select a strong team leader, with a clear view of the role of the course.

- Clearly identify for students the particular people they should contact for their various questions and problems, such as course content, personal problems, and late submission.
- Be ready to make compromises.
- Meet regularly if not frequently.
- Attend each others' lectures, especially if the team is new or you're new to it.
- Respect each others' research and opinions.

If you're an administrator ...

- Reward team teaching appropriately.
- For courses of more than 100 students, give credit for course coordination.

Don't:

- Repeat topics — but if you have a different take on a topic, do cover that.
- Make compromises that interfere with your ability to teach at your best.
- Assume that effective team teaching techniques are the same for students in all years.
- View team teaching as a division of labour; it's an approach to teaching.
- Work with too large a team. Seeing more than two or three instructors per semester is difficult for students.
- Become lax with course policies or expectations.

If you're an administrator:

- Use team teaching to reduce teaching loads.

Introduction

The Faculty Learning Community is an informal group comprised of teaching and research faculty from the Faculty of Arts and Science (FAS) on the St. George Campus of the University of Toronto. The group meets regularly to talk about pedagogical methods and ways that new methodologies can be incorporated into the classroom and also extends what is learned to the teaching community as a whole via conference presentations and publications. Each year, the group decides on a theme and carries out either individual or group projects to investigate various aspects of that theme. In 2005/2006, the theme was “Team Teaching” and the Faculty Learning Community, which is itself a meta-team, initiated a survey to investigate team-teaching methods in the Faculty of Arts and Science on the St. George Campus.

The survey had two stages; the first identified departments offering courses that were team taught, and the second consisted of individual interviews of faculty involved in team teaching. The goal of the survey was to determine which team-teaching models were currently in use for undergraduate courses within the Faculty of Arts and Science on the St. George campus, and to use the wealth of knowledge and experience already available with the Faculty to gain a better understanding of these models.

An initial e-mail sent out to all Departmental Chairs and Principals by Dean Pekka Sinervo (FAS) requested a list of all courses currently taught by more than one instructor. The e-mail also asked that a contact person be identified for a personal interview with one of the Faculty Learning Community members. The purpose of the interview was to gather information of both a factual and interpretive nature. Factual information included: enrolment statistics, year of study, the number of instructors involved, division of course duties, team-teaching model used, as well as frequency and mode of communication between instructors. Interpretive data focussed on the reasons for the team-teaching model employed, the advantages and disadvantages of the particular model, mechanisms to address differences in teaching philosophy/style, and faculty impressions of how students respond to the team-teaching model. The questions asked in the individual interviews are included in Appendix 1.

Responses from the Dean’s e-mail were obtained from fifteen departments within the FAS, and individual interviews of more than sixty faculty members involved in fifty team-taught courses were conducted. Due to the voluntary nature of our survey, it is clear that our data are certainly incomplete. However, we did conduct interviews from eight departments falling within the Sciences and seven departments falling within the Arts, indicating that our data could be expected to have considerable breadth across the disciplines.

The following report identifies some of the key findings from our survey.

Numerics

In this section we present data on team-teaching practices, the number of classes and students involved, and try to estimate student/instructor ratios. As discussed in the introduction, we interviewed all courses where the Department Chair identified a course and/or contact person, plus a few others from Departments which did not respond to the Dean's request but that we found anyhow. Thus some of the numbers below are a lower bound, since we certainly missed a few courses.

There are various definitions of "team teaching" and we chose the most inclusive one: any course with more than one instructor is team taught. We identified three categories, and one of them has two sub-categories:

- A. Two or more instructors share all or most classes.
- B. Serial: a "tag team:"
 - a. The instructors alternate every quarter or term.
 - b. The instructors alternate very couple of weeks or so.
- C. Parallel: each section of the course is taught by a separate instructor.

Table 1 shows the number of courses and students using these methodologies. The University of Toronto has full year courses with a duration of approximately two semesters, and half courses with a duration of approximately one semester. We weighted the courses and students by whether the course was a year course or a half course, and those data are also shown in Table 1.

Table 1. Summary of the number of courses surveyed in the FAS under the various team-teaching models. The total number of students taught within each team-teaching model is also shown.

	Courses	Students	Full Course Equivalents (FCE)	FCE Students
Share Most	4	42	2.5	23
Serial: All	41	13,975	30.5	10,029
Serial: Few Segments	29	10,610	23.0	8,085
Serial: Many Segments	12	3,365	7.5	1,944
Parallel	5	2,510	4.5	2,160

Usually when one thinks of "team teaching" the model that springs to mind is that two or more instructors either share most classes or frequently alternate. The former appears to be extremely rare, and the latter is also not very common. The majority of courses in our study use a serial model with only a few segments and thus many of the comments we received were specific to the serial team-teaching model.

In April 2006, we gave a talk on the results of this study at a conference on *Scholarship, Leadership, and Innovation*, sponsored by the University of Toronto Faculty Association (UTFA). We had about 60 participants, the majority of whom were in the Teaching Stream.¹ Almost 80% of the participants have been involved in some form of team teaching. Before showing the data of Table 1, 71% of the participants thought, incorrectly, that the Parallel model was the form that is most common at our university, with the remainder predicting that some form of Serial teaching is most common.

We also attempted to measure the student/instructor ratios. It turned out that there was no single metric that we all agreed on in doing the calculation. For example, consider a fictional full year course, ABC123Y. It has 1000 students divided into 4 lecture sections of 250 students each, and each section is handled by a separate instructor. In this case we think the student/instructor ratio is 250. However, the time necessary to coordinate all four of these lecture sections might argue that the value should be higher than this.

Now consider the fictional full year course DEF156Y. It also has 1000 students and 4 instructors. But the course only has one large lecture section, and each instructor handles all the classes for one-quarter of the year. From the administrator's viewpoint the student/instructor ratio is probably the same as ABC123Y: 250. From the instructor's viewpoint perhaps 250 is also the correct number. From the student's perspective, one might argue that the correct number is 1000, since 1000 students see one instructor in each class. Different assumptions can lead to values even less than 250. We had considerable discussion on this topic; at the UTFA conference mentioned above, similar discussion and diverging opinions were expressed. At the conference, 77% of the participants initially chose the student-centric number of 1000.

We decided to use the values from the administration/instructor viewpoint. Appendix 2 lists the decisions that we made for the various types of team teaching. The distribution of values within a single category was far from a normal bell-shaped curve, so the mean of the values is not as valuable as the median of the distribution. Table 2 shows the results.

Table 2. Median student/instructor ratios for team-taught courses surveyed in the FAS.

	Median Student/Instructor Ratio
Share Most	3.5
Serial: All	60.0
Serial: Few Segments	80.0
Serial: Many Segments	22.5
Parallel	116.7

¹ At the University of Toronto, faculty members in the Teaching Stream are primarily concerned with undergraduate pedagogy.

The Parallel courses have by far the largest ratio, followed by the Serial / Few Segments ones. The very few courses where all or most classes are shared by two or more instructors are clearly giving the students a very enriched experience.

For the Serial model, we asked the UTFA conference participants to predict the mean student/instructor ratio before showing the data of Table 2. The responses ranged from 20 to over 80, with a flat distribution.

Advantages of Team Teaching

Of the many issues addressed in the survey, the perceived advantages and disadvantages of team teaching elicited some of the more animated responses from interviewees and discussions among the authors. The evaluation of the advantages and disadvantages of team teaching is central to assessing the overall worth of the activity.

Four categories emerged from a review of all responses to the question, “In your opinion, what are the advantages of team teaching?”

- Diversity in expertise and/or perspective
- Diversity in teaching styles
- Workload – reduction and flexibility
- Teaching mentorship/collaboration/support

Diversity in Expertise and/or Perspective

Content is usually the foremost consideration in course design. Team teaching allows a greater diversity of options in the formulation of course content. Interviewees consistently identified that exposing students to instructors for whom the material is their area of expertise yields richer course content. Multiple instructors can also bring different perspectives on similar issues, which can further enrich the student experience and promote a greater appreciation of the course content. Selected comments that reflect these thoughts include: “*students benefit from the higher degree of expertise of the instruction within each section*”, “*intellectually stimulating, students drawn into discussion*”, “*different points of view are good for the students and for the lecturers*”.

Diversity in Teaching Styles

The delivery of course content is also an important factor in the degree of student engagement and comprehension. Students learn through a variety of learning styles and each may be engaged by a different method of delivery. Different teaching styles may therefore make the learning experience more inclusive. Some interviewees felt that it is beneficial for students to be exposed to more styles and personalities regardless of preference since they provide interestingly varied approaches. This perspective is reflected in the following interviewee comments: “*interestingly varied approaches*”, “*good for students to be exposed to more people/styles*”.

Instructor's Workload - Reduction and Flexibility

Faculty involved in team-taught courses with a designated course coordinator/team leader reported a reduction in workload as a clear advantage of the team-teaching model. In such cases, the course coordinator dealt with all administrative aspects of the course as well as played the lead in pulling together the various components of the course to ensure a coherent whole. Even in courses without a dedicated course coordinator, the division of workload among instructors was deemed an advantage. This was particularly stressed by instructors of larger courses where they felt that teaching solo would require higher energy levels and resources than could be reasonably maintained. The greater flexibility in scheduling lectures as well as exchanging lectures in unforeseen circumstances was also deemed an advantage by interviewees. Comments indicative of such sentiments include: “[within] large courses, to maintain energy levels to avoid burnout”, “easier to set tests”, “easier to swap lectures”, “allows flexibility for the instructor in terms of scheduling his teaching, division of workload”.

Teaching Mentorship/Collaboration/Support

Interviewees remarked on the value of sharing course responsibilities among team members. The moral support in having others with whom to discuss ideas and problems was reported as an asset in team teaching. The opportunity for interactions and peer mentorship among colleagues was also identified as an advantage. Relevant remarks: “has become a better teacher by watching the others as they lecture”, “nice to have a partner to discuss problems and work out solutions”.

The four categories above can be grouped into student- or faculty-centred advantages. Students derive the greatest benefit from the diversity of expertise and teaching styles that team teaching offers. Faculty derives the greatest benefit from the workload reduction/flexibility and collaboration opportunities. The results from our survey indicate that the faculty- and student-centred advantages are represented in roughly equal number among the interviewee responses. This implies that the faculty interviewees are as mindful of the student experience in team-taught courses as they are of their own benefits when team teaching.

It is interesting to note that many of the advantages listed above were independently identified as disadvantages by other interviewees (see below). For example, though workload reduction and flexibility were identified by some as an advantage, others identified an increase in workload associated with the greater complexity of team teaching as a disadvantage.

Disadvantages of team teaching

In this section, we summarize the main disadvantages of team teaching in a serial model. The following categories have been identified through our interviews:

- Instructor's workload
- Student experience
- Administrative/Course coordination/Course structure and development

Instructor's Workload

The large majority of our interviewees pointed out that teaching in a team involves more time and work, which can be a heavy load in a short period of time. Consultation and communication between team members is a crucial element of successful team teaching, but adds a lot to the workload. In addition, course structure and development may be marked by policy inconsistencies and disruptions, all of which can work against having a unified theme for the course. Furthermore, the huge time commitment can be disorienting for junior faculty members. One interviewee mentioned "a month of drowning" during his period of teaching.

Student Experience

Students generally imprint and get used to a lecturer's style and it is often difficult for them to adapt quickly to a new lecturer's methods. It was mentioned that it is probably better to keep one lecturer all year, especially in first-year classes. It was also noted that a team-taught course can lose the coherence and integrity that exists in a course taught by one person all year. This is both positive and negative since some students hate the change, but some others embrace it. Another disadvantage is that the instructor does not get to know the students as well as in an entire year course; there is not enough time for the connections to be established. Moreover, students are often confused about where to go for extra help after the transition. The unevenness in terms of the student experience is more pronounced when occasional lecturers are hired.

Administrative Issues/Course Coordination/Course Structure and Development

Some of our colleagues pointed out that every team-taught course needs a coordinator to maintain the academic rigor of the course. The coordinator has a difficult task, especially when it comes to contacting and consulting with many people. Consultation adds more work and time, but it does not result in control over the teaching methods of others.

Serial Team-Teaching of First-Year Students in Large Classes

Whilst we did not specifically solicit opinions regarding the serial model of team-teaching and its application to large first-year courses in either the initial survey or the individual interviews, this subject frequently arose during discussions with interviewees. We did find that there is certainly a difference of opinions amongst faculty members regarding the overall benefit of the serial model of team teaching in large first-year courses. In addition to the fact that large numbers of first-year students are affected by the

serial team-teaching method, these students are also in one of the most vulnerable and impressionable periods of their academic lives. Therefore, we should ask probing questions about the use of the serial team-teaching model in large first-year classes. We will examine this question from perceived viewpoint of students as well as the perspective of faculty members.

First-Year Student Perspective

We require survey data from students to fully address the first-year student perspective. However, in the absence of this data, we can examine what is believed by many instructors to be what students consider desirable elements in a first-year course.

One of the main selling points for students choosing to study at the University of Toronto is the incentive that they will be learning from scholars who are leaders in their respective fields. These leading edge scholars are first rate at constructing new knowledge in their disciplines, and their ideas and energy drive the intellectual atmosphere of the university. Another key value-added element of a university education is the specialist's perspective. Even in an introductory or survey course, conveying a specialized perspective of the discipline helps to hone the student's understanding in preparation for participation in the community of the discipline. From the student's viewpoint, both discipline and pedagogical expertise would be expected to be highly desirable characteristics of instructors in a first-year course. Both of these characteristics are found in varying degrees in the same instructor. However, in the future it would be worthwhile to investigate which of these characteristics is better showcased in large first-year classes, which tend to provide an introduction or overview of the discipline.

In attempting to impart discipline expertise and a specialist's perspective, a great number of first-year students are exposed to several instructors with a variety of teaching styles. First-year students undergo significant academic and social adjustments as they adapt to university life. Many instructors feel that even though exposure to a rich variety of teaching styles may be beneficial in later years, exposure to multiple instruction styles within a course can simply be overwhelming for first-year students and that continuity was a more desirable element at this level.

Faculty Perspective

From a faculty member's perspective there are several issues to consider. First, the division of labour can be a definite benefit. On the other hand, the serial team-teaching method can lead to disjointed teaching, especially since instructors are frequently unsure of the details of what may have been taught by instructors earlier in the term. The serial model can be a good method of getting teaching duties finished quickly, but several faculty members commented that in a large first-year class, the teaching can be extremely intense, despite the short period. Many faculty felt that serial team-teaching allowed them to observe and try different teaching styles; many also thought that it could be a problem if the previous instructor had a teaching style different from their own. Faculty clearly believe that the serial model of team teaching can be an excellent way of easing junior faculty members into teaching. However, as a result of the sheer volume of

students in large first-year classes, junior faculty can feel quite overwhelmed, despite the obvious benefits of the mentoring relationships.

Faculty Opinion

Since during our interviews we did not specifically solicit opinions regarding the serial model of team teaching and its application to large first-year courses in particular, we collected data regarding this issue at both the UTFA and the Society for Teaching and Learning in Higher Education (STLHE) conferences in 2006. At the UTFA and STLHE conferences, we asked approximately 60 and 24 participants, respectively, whether they agreed or disagreed with the following statement with respect to serial team teaching in a single course:

“Overall, exposing first-year students to multiple instructors is a benefit.”

The responses were obtained anonymously using clickers and indicated that 55% (UTFA) and 70% (STLHE) of the participants disagreed with this statement. Clearly, there is no consensus on this issue and faculty need to carefully consider the advantages and disadvantages of the serial team-teaching model from both the student and instructor perspective before adopting this model for his or her particular first-year class.

Tentative Conclusions

We have data with unquantifiable biases, and we disagree among ourselves about just what we can conclude from what we have heard. However, some thoughts are shared by most of us.

Team teaching can be a good way to get your teaching “over with”.

You might or might not view this as a benefit, depending on whether you want to get your teaching “over with”. However, it is indeed a major benefit for some faculty, especially those who are under heavy pressure to do significant research as part of the tenuring process.

In order to take advantage of this aspect of team teaching, you must be using the serial or time-shared approach to teaming.

Team teaching can exaggerate differences between lecturers.

Here again, as so often, we are focusing on the serial model. If on Monday you teach and on Tuesday your colleague takes over, your students will notice the differences. This will be disadvantageous to the weaker partner, even if the weakness is due to lack of experience rather than talent.

Team teaching can be especially hard on first-year students.

Although both we and our students think they come to university for the benefit of education delivered by the experts in the field, nevertheless they are young when they get here, and a teaching model that showcases our knowledge of our particular subareas rather than our talent at teaching and even nurturing may not be ideal, even for students who will thrive on it later in their careers.

Team teaching can be a great way for an experienced mentor to introduce a new faculty member to university teaching.

Perhaps most of us have been on both sides of the mentoring relationship. Even if the mentor and mentored one are not sharing tasks in a single course, it can be very rewarding; but if they are sharing, it can be a memorable teaching experience itself. It is perhaps unlikely that it would always outweigh the possible disadvantages to the students unless special care is taken, but working together might be worth that care.

Appendix 1—Survey Questions for Individual Interviews

I. Factual matters:

1. **How many instructors are involved in XYZ001?**
2. **Does a particular individual serve as the course coordinator for XYZ001?**
If no, skip to Question 3.
If yes,
 - a. **Is the course coordinator for XYZ001 one of the actual instructors?**
 - b. **What does the course coordinator for XYZ001 do (in or out of class)?**
 - c. **How is the coordinator for XYZ001 selected?**
Is it you?
3. **How are course duties in XYZ001 divided up?**
4. **Who designs the syllabus for XYZ001?**
5. “We’re interested in how the teaching of XYZ0001 is divided among instructors?”

Does each instructor teach one or more sections of XYZ001 alone (that is without the participation of other instructors)?

If yes,

Are there different tests and/or final examinations in the different sections of XYZ001?

If no... “We’re interested in how instructors divide up their teaching for the same group(s) of students.”

Does each instructor in XYZ001 teach an entire segment of the course, followed by another instructor’s segment, and so on?

“Or, rather,”

Do the instructors alternate shorter segments?

6. **Do the instructors in XYZ001 ever attend, or co-teach, the same classes? How often?**
7. **Approximately how often do instructors in XYZ001 communicate with each other in order to discuss the course?**
8. **What form does such communication usually take (e.g. meetings, phone, email)?**
Which medium of communication most frequently?
Does the communication characteristically involve all of the instructors or just some of them?
What aspects of the course do instructors usually communicate about?

9. **What is the approximate overall enrolment in XYZ001?**
(If you teach a particular section of the students in XYZ001, what is the approximate enrolment of the section?)
10. **How does the department count your team-teaching contribution in XYZ001 towards your teaching load?**

II: Interpretative matters

1. **Why is XYZ001 team taught?**
2. **Why are you involved in, or how did you get involved in, team teaching XYZ001?**
3. **What if anything is done to address the different teaching methods, styles or philosophies between instructors in XYZ001?**
4. **Do your teaching methods differ in that you are involved in team teaching XYZ001 rather than teaching the course alone? If so, how?**
5. **In your opinion, what are the advantages and disadvantages of team teaching XYZ001?**
6. **As far as you know, how do students respond specifically to the team-teaching aspect of XYZ001?**
7. **From your experience team teaching, do you have any recommendations or warnings to offer those instructors who will be involved in team teaching?**

Appendix 2 – Examples of Student/Instructor Ratios Using our Method of Calculation

Students	Instructors	Length of Course	Method	Ratio
1000	4	Full Year	4 sections of 250 students. Each instructor handles one section.	250
1000	4	Full Year	One section of 1000 students. Each instructor does one-quarter of the classes.	250
1000	2	Half Year	One section of 1000 students. Each instructor does one-half of the classes.	250
1000	2	Half Year	Both instructors do all classes together.	500

Appendix 3 – Dos and Don'ts for team-teaching

We were offered many suggestions by instructors who had taught courses as part of a team. Their recommendations are not always consistent, but they are clearly based on experience. Here are our extracts.

Do:

- Work with people you know, respect and like.
- Try to achieve a consistent approach: course content, academic aims and vision, level, work expected from students.
- Teach similarly: presentation style and format, reliance on text vs readings, level of responsiveness, email replies.
- Share content to reduce duplication and smooth transitions.
- Anticipate a period of trial and error as you learn to coordinate with each other.
- Make sure you coordinate so that things don't fall through the cracks.
- Select a strong team leader, with a clear view of the role of the course.
- Clearly identify for students the particular people they should contact for their various questions and problems, such as course content, personal problems, and late submission.
- See the benefits of teamwork for yourself, and try to provide them for the others.
- Be ready to make compromises.
- Meet regularly if not frequently.
- Attend each others' lectures, especially if the team is new or you're new to it.
- Respect each others' research and opinions.

If you're an administrator ...

- Reward team teaching appropriately.
- For courses of more than 100 students, give credit for course coordination.

Don't:

- Repeat topics — but if you have a different take on a topic, do cover that.
- Make compromises that interfere with your ability to teach at your best.
- Assume that effective team teaching techniques are the same for students in all years.
- View team teaching as a division of labour; it's an approach to teaching.
- Work with too large a team. Seeing more than two or three instructors per semester is difficult for students.
- Become lax with course policies or expectations.

If you're an administrator:

- Use team teaching to reduce teaching loads.