The Alan Blizzard Award
Le Prix Alan Blizzard

An Award for Collaborative Projects that Improve Student Learning
Un prix qui récompense les projets en collaboration pour l'amélioration de l'apprentissage des étudiants

The Award Winning Papers
Toronto, Canada
December 2000

Lauréats du Prix Alan Blizzard
Toronto, Canada
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Higher Learning. Forward Thinking.

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Introduction

The Alan Blizzard Award was created by the Society for Teaching and Learning in Higher Education (STLHE) to honour its former President (1987-1995) Alan Blizzard, on his retirement, for his significant contributions to the Society. The Award is designed to stimulate and reward collaborative efforts to enhance the effectiveness of university teaching and learning, and to encourage and disseminate scholarship in teaching and learning. The Award is given to collaborative projects that increase the effectiveness of learning. Each year the Blizzard Award winners present the Blizzard Plenary address at the Society's annual conference and a monograph describing the project is circulated to all Canadian universities.

The concept for the Blizzard Award was developed by a committee including: Chris Knapper (President, 1981-87), Alan Blizzard (President, 1987-95), Pat Rogers (President, 1995-2000) and Dale Roy (Coordinator, 3M Teaching Fellowship Programme). The Alan Blizzard Award is sponsored by McGraw-Hill Ryerson (Higher Education Division) and University Affairs, Canada's higher education magazine. The Society is particularly grateful to Petra Cooper and Joe Saunderscook of McGraw-Hill Ryerson, for their advice in the conceptual stages of the design of the Award, and for their ongoing support of this project. McGraw-Hill Ryerson supports this Award as part of their focus on student success. Visit www.mcgrawhill.ca/college for a link to Student Success and the use of new technology in education—a McGraw-Hill Ryerson survey of Higher Education Teachers in Canada.

In this inaugural year of the Alan Blizzard Award, 21 applications were received from 19 Canadian universities. This monograph contains papers describing the two winning projects. Readers who are intrigued by the possibility of adapting these projects to their own institutions are encouraged to contact the authors directly. Information about the 2001 Blizzard Awards was distributed to all Canadian universities in November, with a submission deadline of January 31, 2001. For more information and guidelines for submitting a nomination, visit the STLHE website at: http://www.umanitoba.ca:80/academic_support/uts/stlhe

Pat Rogers
Past-President, STLHE
December 2000
Introduction


En cette année inaugurale du Prix Alan Blizzard, nous avons reçu 21 candidatures de 19 universités canadiennes. La présente monographie contient les dossiers descriptifs des deux programmes vainqueurs. Les lecteurs qui intéressent la possibilité d’adapter ces programmes à leur établissement sont priés de contacter directement les auteurs. En novembre, nous avons diffusé à toutes les universités canadiennes la documentation sur le Prix Alan Blizzard 2001, en indiquant la date limite de candidature fixée au 31 janvier 2001. Pour de plus amples renseignements et pour obtenir des directives sur la façon de présenter une candidature, prière de consulter le site web STLHE (SAPES), soit :
http://www.umanitoba.ca:80/academic_support/uts/stlhe

Pat Rogers
Présidente sortante, SAPES
Décembre 2000
A REQUIRED INTER-PROFESSIONAL COURSE FOR ALL HEALTH SCIENCES STUDENTS

Ross Bayne, Moira Bazin, David Cook, Cheryl Cox, Rosemarie Cunningham, Rene Day, Joan Loomis, Linda McCargar, Don Philippon, Jan Pimlott, Elizabeth Taylor and Eli Whitney (The Inter-Professional Health Development & Evaluation Activities Group (IhDEA), University of Alberta)

Summary

Representatives from each of the health sciences programs at the University of Alberta have worked together to create a required course for all health-sciences students in the field of inter-professional behaviour. The objectives of the course are for students to:

- deepen their understanding of the roles of other health professionals and their contributions to the health team;
- develop a patient-centred approach to health, shared with other team members;
- demonstrate effective group process skills;
- demonstrate awareness of their own strengths and weaknesses as team members; and
- describe the essential features of an effective team.

During this course, students work together in small interdisciplinary teams on a series of scenarios designed to help them achieve the course objectives. The course involves more than seven hundred registrants and about fifty facilitators drawn from the different disciplines. Objective data suggests that this course improves the respect between the professions, and that the students feel it improves their ability to function within the health team.

Goals of the project and institutional context

"Society is always taken by surprise at any new example of common sense" (Ralph Waldo Emerson)

It has been recognized repeatedly that health care is in transition, and that health care education must adapt to change (Lowry, 1992; Muller, 1984; Toews, 1990). A key feature of recent changes in health care delivery and in health promotion has been the recognition that interdisciplinary teams often make the most useful contribution (Weaver and Farrell, 1997). This does not require an extraordinary amount of insight; illustrations from many aspects of life, from professional sport to building a successful family, illustrate this point repeatedly, but the translation of this truism into action in the health field has proved to be difficult. Mostly, we prepare our health care professionals in discipline-specific isolation, and then expect that, by some happy accident, a successful inter-professional team will arise when the students graduate and are working together with real patients. By analogy, in the world of hockey, this is like having entirely separate training schools for hockey goaltenders, defenders and forwards, and having the groups coalesce only when an actual game was being played – not a strategy that would lead to much success. Indeed, our experience suggests that in health the situation may be even worse; rather than working together, Health Faculties tend to compete with each other for available funds and facilities, and this professional loyalty tends to permeate their students' behaviour on graduation.
Common sense thus dictates that we should try to lay the foundations of effective inter-professional collaboration during the education of all those who will work in the health field. However there are few published examples of attempts to achieve this objective. Certainly there have been interdisciplinary courses in the health field, but they have almost always been either electives (at least for some disciplines), or have consisted of didactic presentations with little opportunity for students to experience actual teamwork. Faculties of Medicine, in particular, have seldom been heavily involved in such programs. Indeed, when we first started to talk to other universities about our plans, we were often told that it was wonderful in theory, but logistically impossible! The group at the University of Alberta have taken on this challenge, and had some success.

**History**

“Everybody talks about the weather, but nobody does anything about it.” (Charles Dudley Warner—but usually attributed to Mark Twain)

Since 1992, members of the academic staff from Nursing, Occupational and Physical Therapy, Medical Laboratory Science, Pharmacy, Medicine and Dentistry offered a course on the health care team. This course, Interdisciplinary 410, was an elective in all Faculties except Dentistry where it became a requirement in 1996. In its first year, the course enrolled twenty-four students, and year by year the enrollment grew to the point where over a hundred and forty were registered. The course was given in the evening, and involved a great deal of small group work.

In 1997, the Coordinating Council of Health Sciences\(^1\) recommended the formation of a committee to give additional thought to the issue of inter-professional\(^2\) education. At about the same time, students in the Faculties of Medicine and Pharmacy formed a Society, called the Alberta Collaborative Health Interdisciplinary Learning Initiative (ACHILI), which now includes students from other health programs and is dedicated to the idea of interdisciplinary collaboration. Under the aegis of the Executive Director of Health Sciences, a group was formed comprising members of the Health Science Faculties, instructors in the existing Interdisciplinary 410 course, community practitioners, and members of ACHILI. This group set, as its primary objective, the furthering of inter-professional education at the University of Alberta. The group was so large, however, that it was unwieldy, and a smaller committee, including a representative from each of the undergraduate programs, was formed to develop an appropriate initiative. This committee was later christened the Administrative Group on Interdisciplinary Health Sciences Education\(^3\)–only after the name had been chosen did we realize that the acronym was AGonHSE! This Administrative Group has remained essentially stable from its inception, although we have added a much-needed administrator (the Program Director), and a management consultant with a professional background and practice that emphasizes team function, particularly in the health-care setting. Very recently there has been further structural reorganization, although the same group of individuals are participating in the deliberations.

The Administrative Group decided that the program of inter-professional education should involve, as a first step, the initiation of a course which would be mandatory for all health sciences students and which would provide them with the knowledge, skills and attitudes to function effectively within a health-care team. Undoubtedly, the group benefited immeasurably from the experience of the members who had taught the previous interdisciplinary course. However, since no other University appears to have tried to create a credit course in this area that involved all the Health Faculties, we were essentially starting from scratch.

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1 This group includes the Executive Director for Health Sciences and the Deans of each of the Faculties of Agriculture/Forestry/Home Economics, Medicine/Dentistry, Nursing, Pharmacy, Physical Education/Recreation and Rehabilitation Medicine.

2 We use the terms "interdisciplinary" and "inter-professional" interchangeably.

3 Now called the Inter-Professional Health Development & Evaluation Activities Group (IhDEA).
Planning and Problems

"Here is a fact that should help you to fight a bit longer: things that don’t actually kill you outright, make you stronger." (Piet Hein: "A Maxim for Vikings" after Friedrich Nietzsche: "What does not destroy me makes me strong")

As a first step, the Group members had to learn how to work together on a common project, which meant diminishing allegiance to our own Faculties in favor of allegiance to the principles of the Group. This was initially more difficult than might be supposed. At best, the individual Faculties had an uneasy truce, and at worst there were pockets of open warfare. Perhaps more by luck than good judgment, the Group made three useful decisions: the Chair and Vice-Chair would be from Faculties that were least involved in inter-Faculty skirmishes; we would develop rules for process and deliberation, and adhere to them; and, since we thought that the chances of receiving any tangible reward for our efforts were minimal, we would do our utmost to enjoy the process. These three decisions have sustained us through some periods of intense frustration and helped us to form a team that usually modeled well the behaviours we were trying to promote in students.

A GonIHSE started off with the concept of a course in which groups of students from different Faculties work together, and thus learn something about group process. When we added up the numbers, we determined that such a course would involve 700-800 students. Since providing a series of lectures was not what we had in mind, some logistical problems rapidly emerged. The first question we addressed was: “During which year of their university education should students take the course?” During the later stages of their education, many students are in clinical field placements, which present insuperable logistic problems (but see “Future Developments”, below). On the other hand the earlier the course is offered, the less background the students have, making it difficult for them to represent their discipline in a multi-disciplinary group. A combination of logistics and pedagogy provided us with the distribution shown in Table 1.1.

<table>
<thead>
<tr>
<th>Program</th>
<th>Enrollment 1998-99</th>
<th>Enrollment 1999-2000</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygiene</td>
<td>41</td>
<td>41</td>
<td>2nd</td>
</tr>
<tr>
<td>Dentistry</td>
<td>61</td>
<td>64</td>
<td>1st and 3rd</td>
</tr>
<tr>
<td>Medical Laboratory Science</td>
<td>3</td>
<td>18</td>
<td>4th</td>
</tr>
<tr>
<td>Medicine</td>
<td>107</td>
<td>100</td>
<td>1st</td>
</tr>
<tr>
<td>Nursing</td>
<td>19</td>
<td>265</td>
<td>2nd and 3rd</td>
</tr>
<tr>
<td>Nutrition</td>
<td>4</td>
<td>36</td>
<td>4th</td>
</tr>
<tr>
<td>Occupational Therapy4</td>
<td>3</td>
<td>14</td>
<td>4th</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>121</td>
<td>116</td>
<td>2nd</td>
</tr>
<tr>
<td>Physical Education</td>
<td>3</td>
<td>9</td>
<td>varies</td>
</tr>
<tr>
<td>Physical therapy</td>
<td>49</td>
<td>75</td>
<td>3rd and 4th</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>19</td>
<td>varies</td>
</tr>
<tr>
<td>TOTAL</td>
<td>437</td>
<td>757</td>
<td></td>
</tr>
</tbody>
</table>

Table 1.1: Enrollment and year of study for registrants in the Interdisciplinary program

The next problem was to find a time in which all students would be available. To be compatible with the timetables of all the different academic programs, a concentrated five-week period in January and early February represented the only possible option. We thus scheduled the course for 3 or 3.5 hours each Tuesday and Thursday during this time period, with the students having a choice between afternoon and evening sessions.

*4 The course will become mandatory in the 2001-2002 academic year.*
Since there was already an “Interdisciplinary 410” (IntD 410) course in the University Calendar, we elected to keep this designation. We were able to make the new IntD 410 a required course for all students except those in Medicine and Dentistry, where the curriculum was largely free of conventional courses. For these students, we agreed that the course would form a "must complete" section of "Practice of Medicine" or "Practice of Dentistry", two existing programs which dealt with clinical skills, interaction with patients, and similar topics. There was ready agreement that this should be a “pass-fail” course, rather than one to which a grade is attached. Guiding these decisions through the required maze of academic bureaucracy was the responsibility of the undergraduate program representative on AGonIHSE, and for most of us it was a steep and not entirely pleasurable learning curve.

Rather against the odds, we thus found ourselves in the position of being able to offer a course with the overall objective of making our graduates more effective members of the health care team. Previous experience in the original version of IntD 410 was valuable, but we recognized that there were considerable differences between that course and the one proposed. Possibly the most important was that the previous course had been an elective, and thus those who took it were probably already interested in developing their skills in team behaviour. We had to recognize that we would now have students who might not see this as a significant academic priority. On the other hand, the students in ACHILLI had already voiced their support for the idea, and the Deans had looked benignly, if distantly, on what we were doing and provided some significant support. So we were reasonably confident that we would be able to mount a successful course.

**Project Description**

**Objectives and Process**

"Personally, I'm always ready to learn, although I do not always like being taught." *(Winston Churchill)*

The mission of the course is to ensure that students who graduate from our health Faculties are better able to function in a health team. This goal has been reduced to five measurable and achievable objectives for student learning. Students will:

- deepen their understanding of the roles of other health professionals and their contributions to the health team;
- develop a patient-centred approach to health, shared with other team members;
- demonstrate effective group process skills;
- demonstrate awareness of their own strengths and weaknesses as a team member; and
- describe the essential features of an effective team.

We agreed that we could not achieve our mission by giving lectures on group process and organising panel discussions on the roles of each profession. It seemed obvious that what was needed instead was for students to interact with the other professions by actually practicing such interaction through analysing a series of scenarios, specially designed to achieve the course objectives. Influenced by a "process-learning" approach *(Duncan-Hewitt et al, 1995)*, we developed the following model:

- **Teams:** Students are assigned to teams of 6-7, usually with no more than two students from the same undergraduate program in any one team. There are 120 teams in the entire course.
- **Sections:** Six teams form a section. The teams within a section work independently but in the same geographical area. Each section has two or three facilitators, one a member of the academic staff in one of the Health Faculties, and another a health professional who practices in the community. One of these facilitators is designated as the “section leader”. The facilitators keep an eye on team function and provide advice and assessment of performance, but as far as

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5 Rarely, it becomes necessary for a team to have three nursing students
possible they permit the students to work without interference. There are twenty sections in the entire course.

- **Pods:** Two or three sections, usually working in classrooms close together, form a pod. One of the section leaders in the pod is designated the pod leader, and is, in most cases, a member of AGonHSE. The pod leader is a resource for the pod, and is expected to hold meetings with the facilitators to ensure that all is proceeding smoothly. There are eight pods in the entire course. The pod leaders meet weekly throughout the course to share ideas and solve problems.

This model provides a degree of independence for the students as well as readily available assistance if a team gets into trouble. For every 100 students, we require a minimum of about five or six facilitators who are drawn from the Faculties, in proportion to the number of students from that Faculty in the course. Each Faculty is expected to provide a reasonable mix of academic staff and community professionals, who provide feedback to the academic staff on the suitability of the curriculum and classroom activities and their relevance to real clinical practice. Community facilitators receive an honorarium of $450, paid for by the Faculty that provides them. Academic staff teach in the course as part of their regular teaching assignment.

Preparing facilitators for the role is very important; selected members of AGonHSE meet for an afternoon or evening with groups of the new facilitators, and explain the course objectives and provide a model of how the scenarios work. These workshops are offered several times, and facilitators who are unable to attend must make time for an individual orientation provided by the Program Director. Section leaders all have previous experience as facilitators in the course. In addition, the Program Director and the management consultant visit the sections and are available to assist with logistical problems or class management issues.

The course is structured around five scenarios, which in turn allow students to explore group decision making, interaction among health care professionals, interaction of the health care team with an individual, interaction of the health care team with the community, and working together in a patient-centred fashion. The ten sessions in the course are planned as follows:

1. The first session, the only plenary session, introduces students to the overall philosophy, logistics and evaluation of the course and provides a light-hearted look at group process. This is held in the main auditorium in the hospital, and lasts for one hour. For the remaining two hours, the students move to the location where they will function in their teams to meet their facilitators. The section leader introduces the first scenario, "Gilligan who?", to each section, and then in teams, the students embark on exploring the scenario. Students are asked to imagine they are being shipwrecked and together to plan their best strategy for survival. We ask them to record their individual decisions first, then to reach group consensus, and finally to compare the plan they have developed with an "approved" strategy devised by a coastguard. The exercise is designed primarily as an ice-breaker and team-builder, and serves to emphasize that group decisions are often wiser than individual decisions.

2. In the second session, students explore interactions among health care professionals. The teams are each asked to construct a 5-minute presentation (for a television documentary) on "the roles of the health disciplines and how they work together". During this session, students have to explore the scope of practice in each discipline and decide how best to describe the function of a health team. They are provided in advance with references to various professional organizations, and are expected to be able to explain to the other team members what their professional education involves, and how their discipline is practiced.

3. The "TV presentations" devised by each team in session 2 are performed for the other members of the section. Following the presentations, each team examines their areas of strength and areas for improvement. At this time we introduce known competencies for the functioning of an effective team.
and stages of team development, and ask each team to arrive at a set of expectations for their successful function.

4. The scenario explored in the next two sessions is more complicated, and involves a case, based loosely on a real event. The intent is to move the team function from interaction among the health professionals, to interaction of the team with an individual patient. The students are expected to prepare in advance by reading a clinical case from their course manual as well as additional material if they are unfamiliar with the discipline-specific aspects of the case. They then watch a video⁶ that shows an elderly man being admitted to a hospital emergency room with a fractured arm. The admission process and filmed statements from relatives reveal that, since the death of his wife, the man has experienced progressive deterioration of physical and mental functions, the cause of which is not immediately apparent. The students are then asked to discuss this case, and the six teams within each section are divided into three pairs. Based on information in the video and in the “resources” section of the student manual, one team from each pair is asked to plan and then perform an intake conference for this patient at a geriatric assessment unit. They are also asked to prepare a “feedback contract” which details the behaviours they intend to display during the conference, and on which they would welcome advice and comment. The other team in each pair provides three individuals, one to play the patient, one the patient’s son, and the other the patient’s daughter, who all might be present at such a conference. The remaining members observe the intake conference and provide feedback within the parameters of the first team’s feedback contract.

5. This session continues with the previous scenario. A short video of a nursing/occupational therapy visit to the patient’s home reveals that, although there are plenty of other ongoing health related issues, including alcohol consumption, the major problem identified is an accidental chronic sedative overdose. The pairs of teams now exchange the roles they performed in session 4: the team that observed the intake conference conducts a discharge conference, while the team that performed the intake conference, supplies the individuals who play the roles of the family members and observe the proceedings. A feedback contract is constructed as before. The final debriefing involves the team function, the degree of patient-centredness of the conferences, and the giving and receiving of feedback.

6. In this session the team’s experience of group interaction is expanded to interacting as a team with a community. The students watch a short video that was filmed, with community collaboration, in Breton, Alberta. The video shows life in a small town and includes interviews with both health workers and other residents of the town, including members of the Town Council and teachers. The students are asked to reflect on how the health team interacts with the community, and specifically to plan an improved but realistic health care delivery system. They are expected to develop these presentations as proposals that might be made to the Breton Town Council.

7. Each team chooses one area of their proposal and presents it as if to a Town Hall meeting. The teams take turns to make their presentation, with another team in the section playing the role of the Town Council. The remaining four teams participate as if they were members of the community listening to Government proposals. The debriefing of this session deals with conflict and argument and the way in which these can be handled and resolved in a positive fashion.

8. The final scenario, on a more complex and disturbing topic than has been encountered previously, is also introduced by video. In the video, a woman and her small child are seen interacting with a public health nurse. The mother is pregnant, has extensive facial bruising, and although she is reluctant to discuss it, there is a strong feeling conveyed that she might be being abused. The nurse provides her with contact

⁶ All videos used in this course were produced locally with a grant from Health Canada. Where actors were involved these were professionals, and the videos were commercially prepared to professional quality.
information for a women's shelter, and several days later the woman and her son arrive at the shelter. The students are asked to discuss the video, and decide how the health team might assess the situation, and act in a concerted and patient-centred fashion. In the second part of the scenario, it is revealed that the woman has a substance use disorder and has violated the “no-drugs-or-alcohol” rule of the shelter. The team is asked to develop a way of dealing with the situation, and if they cannot reach consensus, to identify the reasons. Finally, we ask the team to look back over the way they made decisions over the entire duration of the course and to consider what, if anything, has changed, and whether they would do things differently if they had to go through the process again.

9. In Session 9, students complete a course evaluation questionnaire and take the “GOSCE” examination (described later).

10. The final session is an opportunity for the teams in each section to socialize. They receive feedback on their performance in the GOSCE, share entertaining moments during the course with others in the section, put on any skits they would like to perform, comment on the process and what they learned, and make suggestions for improvement in the next offering of the course. This session is designed to be a positive ending to the experience of learning to work together in teams.

At the beginning of each session, all the teams in a section meet with their section leader to discuss the objectives for the day, the agenda, and any other information that is necessary for the teams to start work. Sometimes a further brief presentation is made to the section during the session, but most of the time the students work in their teams, as outlined above.

Throughout the course, the facilitators observe the functioning of the teams. Each team is asked to provide a vacant chair, so that a facilitator can slide in unobtrusively and observe the proceedings. The facilitators can answer questions, make comments and pose additional questions, but they are asked to intervene as little as possible. In addition, each team is asked to identify a leader, a recorder, an energizer (keeps the group positive, engaged and encouraged) and a skeptic (prevents rapid and superficial discussions by suggesting alternatives and questioning decisions). Cards are placed in front of the individual to identify their role and roles are rotated within the team at each session. Those team members who do not have an assigned role may assume any of the following functional roles:

- assessor (identifies and analyzes group process);
- equalizer (ensures roles and responsibilities are shared within the team);
- unifier (seeks commonality and consensus);
- synthesizer (combines ideas to provide an improved solution);
- clarifier (makes sure that everyone understands the real issues involved);
- summarizer (condenses the conclusions into an easily-assimilated package);
- monitor of critical dialogue (makes sure that every issue is discussed appropriately, and that consensus is not reached uncritically).

The students who assume these roles do not need to identify the role they have adopted, but they do need to keep them in mind as they participate in the discussion. Each student thus has three tasks: to represent their discipline on the team, to play an assigned role in the group as described above, and, of course, to work on the scenarios.

**Evaluation**

"Man's business here is to know for the sake of living, not live for the sake of knowing" (Frederick Harrison)

The current evaluation system is tied tightly to the learning objectives, and is both simple and not unduly burdensome for either students or staff. It also includes one (apparently) entirely original tool.
While the teams are working on the first two scenarios (in sessions 1-3), the facilitators observe and guide the group process. After scenarios 3 (in sessions 4 and 5), 4 (in session 6 and 7) and 5 (in sessions 7 and 8), each team member completes a debriefing questionnaire, which is handed to the facilitator. This document is then discussed with the teams by their facilitators, who also use their own progress notes to comment on the group process as well as the team's ability to identify its own strengths and weaknesses. Problems with individuals are tactfully but unequivocally mentioned.

Each individual and each team is assessed by three criteria:

- participation in the team process;
- ability to answer appropriate questions about the health professions; and
- performance in a “GOSCE” examination (see below).

This abbreviation GOSCE is an acronym for “Group Objective Structured Clinical Examination”, and is based on an individual examination format widely used in the health sciences and referred to as an Objective Structured Clinical Examination (OSCE) (Harden and Gleeson, 1979). In an OSCE examination, the student performs a task, often with a simulated patient, which is realistic for their stage of learning, in the presence of an examiner. Using a checklist, the examiner scores each student's performance objectively in comparison with minimum acceptable standards of performance. The GOSCE is similar, except that the process occurs with a team rather than an individual. Each team spends about 20 minutes on a problem that they encounter for the first time in the examination, with a further 5 minutes spent assessing their performance as a team. The process is scored independently by at least two examiners, using a checklist that is similar to the debriefing questionnaires with which the students are already familiar. One of the examiners is from the team's own section, while the other, from another section, has not met these students previously.

The majority of students successfully complete this course, either immediately or after some remedial work. Only one student failed the initial offering of the course, but this individual had other problems within their undergraduate program. The overall goal, of course, is for students to develop the required knowledge, skills and attitudes and the overwhelming majority of students find the process useful in enabling them to learn and demonstrate achievement of course objectives. In the context of this course, it is possible for an entire team to fail, but in fact, all failures and “incompletes” have been at the individual level. Assessment is based not only on the GOSCE, but also on individual performance during the course. If, for example, an individual is identified as having a problem during the sessions dealing with the third scenario, and corrects it by the end of the course, a “pass” is awarded. A grade of “fail” arises either from failure to correct an inappropriate behavior, which has been identified and discussed with the student, or from absenteeism. We expect that all students will be at all sessions, and absences are noted and must be explained. We ask those who are absent to work with their team members to ensure that the absentee contributes to the team in such a fashion as to make up for their absence. Section leaders identify those students whose performance is of concern, and an evaluation committee, which comprises the pod leaders, considers these views, together with the attendance record and the results of the GOSCE on a case-by-case basis. The evaluation committee can assign a pass, an “incomplete” which means that the student is required to successfully complete some appropriate remedial work, or an outright fail.

**Outcomes**

A questionnaire survey, distributed in session 9, revealed that the majority of students in 1998-99 believed the course had changed their behaviour. Almost 90% (388/437) of the students in the course completed the questionnaire and of those the proportion of students who “agree” or “strongly agree” with a particular statement is represented below:
“I learned to value new viewpoints” 76.5%
“I learned to collaborate more effectively with other health care team members” 80.2%
“I deepened my understanding of other health care professionals” 81.6%

A second questionnaire, the Revised Interprofessional Perception Scale (RIPS) (Ducanis and Golin, 1979; Skoloda and Angelini, 1998), was administered twice, once at the beginning and again at the end of the course. The RIPS provides a broad measure of the perceptions of one discipline by another. Each student was assigned one other discipline, selected at random from the disciplines represented in the course. In the pre-test, fully half of the respondents were unable to complete the questionnaire because they did not know enough about their assigned profession. However, in the post-test, 34% of those who could not complete at least one question at pretest, were able to complete the entire questionnaire. Of 19 statements presented to students for examination, 11 showed a statistically significant change towards a more positive assessment of the assigned profession. These statements, exactly as posed, were as follows:

Those in the __________ Profession

- Have little autonomy (afterwards this was believed less)
- Understand your capabilities (afterwards this was believed more)
- Are concerned with patient welfare (believed more)
- Are highly ethical (believed more)
- Are defensive about their professional areas (believed less)
- Trust your judgement (believed more)
- Utilize your profession (believed more)
- Do not co-operate well with your profession (believed less)
- Their input is important (believed more)
- Their input is highly valued (believed more)
- Percentage of times these members attend team meetings (greatly increased)

A publication based on these data has been submitted to the Journal of Allied Health (Wilson et al., submitted). We have made a deliberate effort to communicate nationally and internationally about our interprofessional course at the University of Alberta. More than ten presentations at national and international meetings have been made, three videotapes prepared, and a number of additional publications are planned.

**Future Developments**

Currently, AGonIHSE is developing two other initiatives designed to promote inter-professional collaboration among health sciences students. The first initiative is designed to create limited collaborations, or “partnerships”, often with a focus on a specific health problem. For example, medical and dental students spend an afternoon with nutrition students discussing dietary modifications in diabetic patients. In another example, the AGonIHSE members from Nursing, Pharmacy and Medicine are part of national consortium on the interdisciplinary teaching of substance use disorder, a topic that occurs twice in the course described above. Because of the wide-ranging nature of representation on the committee, AGonIHSE is able to act as a clearinghouse and liaison for these partnerships.

A second and more ambitious project involves what we call “team placements”. Many of the disciplines have some form of “field placement” experience, in which students, towards the end of their program, are sent to community health programs, either in Edmonton or in rural Alberta. For example, all medical students are required to spend four weeks in a rural family practice setting. About three years ago, just after AGonIHSE was formed, it was suggested that it might be possible to send a coordinated inter-professional student team rather than an isolated individual from each discipline. The logistics of this are not easy, but so far three teams have completed such a team placement, in which they learned the discipline-specific material required.
while learning how to interact as a health-care team (in Edmonton, Slave Lake and in High Level).
Systematic evaluation of the success of this endeavour is in progress and preliminary data are encouraging.
We would like to expand the program to include a wider range of disciplines in each team and to increase the
number of opportunities our students have to participate in this sort of experience.

Our ultimate goal is to steer our health science students through a planned and coordinated series of
interdisciplinary activities, starting with the IntD 410 course and concluding with a team placement.

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Brief biographies

Note: “Frequent role” refers to the team roles detailed in the paper. Apart from our Chair and Vice-Chair, we never actually assigned any roles; we just fell into them naturally.

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Ross Bayne, Team Consultant. Ross is a consultant in private practice with Hope Learning Systems. He works with individuals, teams and organizations to maximize performance through teamwork, collaboration and by challenging their ways of thinking. Most frequent roles: Leader and Unifier.

Moira Bazin, Program Director. Moira trained as a nurse, but now spends two thirds of her time as a program director. Most frequent roles: Recorder and everything else.

David Cook (Medicine) David is a pharmacologist, 3M Teaching Fellow, and currently director of the Division of Studies in Medical Education. Most frequent role: Energizer.

Cheryl Cox, Chair. (Pharmacy) Cheryl is the Director of Clinical Placements for students in the Faculty of Pharmacy. Most frequent role: Leader.

Rosemarie Cunningham (Medical Laboratory Science) Rosemarie is now retired from her teaching role in the Medical Laboratory Sciences program, but continues to be involved in IntD 410. Most frequent role: Assessor.

Rene Day (Nursing) Rene is one of the original members of the 1992 interdisciplinay group, and has chaired curriculum changes in nursing. Most frequent role: Clarifier.

Joan Loomis (Physical Therapy) Joan is associate dean in the Faculty of Rehabilitation Medicine and has been with the course since its inception. Most frequent role: Skeptic.

Linda McCargar (Nutrition) Linda is a nutritional scientist and the director of the research component of AGonIHSE. Most frequent role: Summarizer.

Don Philippon (Health Sciences Office) Don is executive director of Health Sciences and professor of Strategic Management and Organization in the Faculty of Business. Most frequent role: Catalyst.

Jan Pimlott (Dental Hygiene) Jan is the director of the Dental Hygiene program in the Faculty of Medicine and Dentistry. Most frequent role: Equalizer.

Elizabeth Taylor (Occupational Therapy) Elizabeth is an occupational therapist and counseling psychologist with both a clinical practice and an academic position. Most frequent roles: Energizer, Clarifier.

Eli Whitney, Vice-Chair. (Dentistry) In addition to performing his academic responsibilities in oral diagnosis and oral medicine, Eli is a practicing dentist. Most frequent role: Synthesizer.