

UIC

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College of Medicine

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MHPE Online Summer Conference

Session 1: Teaching Technologies (Alan Schwartz, Discussant)



[Integration Of Simulation-Based Anesthesia Education With A Web-Based Resource](#)

Karen Steckner



Introduction: Full-scale anesthesia patient simulation is thought to be useful for enhancing anesthesia trainee learning by using an experiential approach. However, it is a very time- and labor-intensive teaching tool. Using a web-based resource to allow trainees to prepare and review simulation sessions, may encourage them to use collaborative learning and “deeper” learning strategies, thus 1) maximizing learning, and 2) allowing more of the teaching sessions to be used for higher-order cognitive skills.

Methods: All senior anesthesia residents at Cleveland Clinic have attended a monthly simulation session for the last year. In addition, our anesthesia interns have been attending a different monthly simulation session over the last four months. An online resource was created, to provide a curriculum and a study plan for these sessions. The online resource provides: 1) a case stem, 2) questions regarding perioperative anesthesia management, 3) a list of references (short reading assignments from texts, key journal articles, and on-line “links” to internal and external sites.

Results: For personnel at the same training level, it was recognized that our trainees have 1) different learning preferences, and 2) different levels of knowledge and comprehension of the topics that would be relevant to each simulation session. Some participants are enthusiastic about using the online-resources. In a three-week period in March, thirty trainees accessed the website. The trainees are increasingly reading, printing out, “reading around”, and discussing the topics posted on the web-based resource. An additional benefit of the site has been to simplify logistics of running the simulation center. The online resource serves as a centralized scheduling area, streamlining the workload of secretaries, engineers, and clinicians involved in supporting education in our simulation center.

Discussion: A web-based resource can provide a unique supplement to a simulation center by 1) coordinating operational issues in running the center, and 2) possibly enhancing the educational value of the experience. Further study may help to determine the ultimate impact of this intervention.



[Peer Teaching and Computer-assisted Learning: An Effective Combination for Surgical Skill Training?](#)

David A. Rogers

Background: The surgical literature suggests that collaborative learning using peers may be a valid way to teach surgical skills and there is a growing interest in the use of computer-assisted learning for this purpose. Combining this evolving technology with this type of teaching would theoretically offer a number of advantages including a reduction in the amount of faculty time devoted to this task. In this study, we evaluate the efficacy of a type of collaborative learning in a computer-assisted learning environment.

Materials and Methods: We designed a prospective, randomized study comparing novice learners who were allowed to work in pairs with those who worked independently in a specially equipped computer-assisted learning classroom. Both pre-test and post-test assessments were performed by videotaping this skill. Three experts then evaluated the videotapes, in a blinded fashion. Three different outcomes were assessed.

Results: Seventy-seven subjects were enrolled in and completed the study. Comparison of the outcome measures demonstrated no between group difference in the average performance scores or post-test times. The proportion of subjects who correctly tied a square knot was significantly lower in the Computer-Assisted Peer Teaching group when compared the Computer-assisted Learning Alone Group ($p=.04$).

Conclusions: Collaborative learning in a CAL environment is not an effective combination for teaching surgical skill to novices.



[Faculty Panel: Challenges and Creativity in Developing Online Courses](#)

Panelists: Gerry Stapleton, Ara Tekian, Joe York

Discussant: Mark Gelula



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Session 2: Works in Progress (Georges Bordage, Discussant)



A Web-based System to Evaluate Faculty Teaching: Successes and Barriers

Hilary M. Haftel

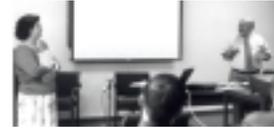
Purpose: Feedback regarding teaching skills is of critical importance to faculty members, both in seeking improvement in teaching abilities and in documentation of teaching for promotion and review. For feedback to be helpful, it should be timely, relevant and specific. Unfortunately, due to a variety of reasons, it is often difficult to receive feedback from resident physicians regarding faculty teaching in a timely manner. In order to improve both the quality and quantity of resident feedback on the teaching of faculty, in 1999 The University of Michigan Department of Pediatrics initiated a web-based evaluation system of the faculty, as well as an electronic-based system of reminders to residents to complete faculty evaluations. The objectives of this study is to determine if this new evaluation system has improved resident feedback regarding faculty teaching and determine what are continued barriers if such exist.

Methodology: The web-based faculty evaluation program was initiated in 1999. The program consisted of a linked program on the pediatric residents' internal homepage listing all faculty connected to a standard faculty evaluation form with 18 items on a 5-point Likert-type scale and a place for additional comments. Residents may evaluate as many attendings as appropriate in any given month. The residents are provided monthly electronic reminders to fill out faculty evaluations, and this is reinforced during regular meetings with program administration.

A pre/post-intervention study design was employed. Data regarding number of evaluations per resident, as well as number of evaluations per faculty member are currently being collected and will be compared to pre-intervention data. Residents are currently being surveyed regarding ease of use and barriers to completion of the new evaluation system.

Results: Preliminary data indicate that overall numbers of evaluations for most faculty have increased, although numbers are too small at this point to determine statistical significance. The increase in numbers of evaluations per resident is not consistent throughout the test group and study is currently underway to explore the reasons behind this finding.

Conclusion: Feedback regarding faculty teaching abilities is an important component in improving overall program quality as well as providing documentation for faculty during reviews for promotion. A web-based evaluation system has been employed to increase both the quantity and quality of resident feedback to faculty. A successful intervention may be expandable to include other programs or personnel requiring feedback, on both an individual and programmatic level.



Can Interactive Instruction using Patient Simulation Improve Clinical Teaching of Anesthesiology Residents?

Karen Steckner

Clinical teachers, as a rule, have had little formal instruction in teaching methods, and may benefit from the opportunity to learn such skills while actively teaching. Anesthesia simulator-based curricula are increasingly being incorporated into anesthesia training programs at several centers. We propose to study the effect of interactive instruction and feedback on teaching behaviors in faculty-resident pairs during videotaped simulator cases. The pairs will be randomized to either control (standard simulator sessions), or interventional (the same sessions facilitated by an educational consultant) groups. Videotapes of the resident-faculty interactions will be viewed by independent blinded observers, to rate various teaching skills exhibited at the beginning and at the conclusion of the study, with the use of a rating instrument previously developed for a residency training program. Outcomes examined will include scores for various teaching skills pre- and post-intervention, the faculty's self-reported interest and knowledge of effective teaching strategies, and a qualitative description, provided by our educational consultant, of the perceived changes in teaching behavior. It is our hypothesis that an educational consultant can help to improve clinical teaching of residents by anesthesiologists.

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Session 3: Educational Programs (Alan Schwartz, Discussant)



[A First-Year Experience With Problem-Based Learning In A Baccalaureate Cardiorespiratory Care Program](#)

Tim Op't Holt

Introduction: A PBL curriculum was implemented in a cardiorespiratory care program in response to interests internal and external to the profession. The profession has experienced growth in both content and depth of knowledge expected at entry- and advanced-practitioner levels. The need for critical thinking and decision-making skills are emphasized by internal and external interests, but methodologies that inculcate these skills have been lacking. Programs are finding it increasingly difficult to meet students' learning needs solely through traditional methodologies. It is thought that PBL is a methodology that improves these skills.

Methodology: A four-semester preprofessional phase is completed, which consists of courses required for the baccalaureate degree and program prerequisites. In the professional phase, students are provided lectures in physiology, assessment, therapy, and PBL process during an initial eight-week period, followed by PBL and clinical courses for the remainder of the curriculum. Progressive disclosure cases are prepared, based upon actual patients receiving cardiorespiratory care. Faculty are prepared in facilitation skills. Students meet in small groups with a facilitator, three times weekly for case study and determination and discussion of learning issues. Learning issue content consists of pathophysiology, therapeutics, pharmacology, and equipment usage. Evaluation, enrichment lecture, and laboratory sessions are held. Enrichment (specific content) lectures are presented by the facilitators by student request and when deemed appropriate by the facilitator. Student evaluation includes written examinations, independent case activities, and evaluation of interpersonal skills.

Results: Program evaluation has demonstrated that PBL students have performed better than most of their predecessors on the National Board for Respiratory Care (NBRC) entry-level self assessment examination. Additional evaluation methods include the Watson-Glaser Critical Thinking Appraisal and NBRC credentialing examinations (Certified Respiratory Therapist, written Registered Respiratory Therapist and Clinical Simulation Examination, a test of critical thinking and decision-making). Most students enjoy the process. Modifications are underway. The evaluation period for this longitudinal study will continue at least through Fall 2001, when all graduates of four classes (two traditional and two PBL) will have completed their credentialing examinations. We believe this program represents the most ambitious application of Problem-Based Learning in Cardiorespiratory care.



[Context, Content And Culture: Determining The Quality Of Psychiatry Residency Programs](#)

Rachel Yudkowsky

Residency programs have many stakeholders, who vary in their priorities and values. In 1997, a task force of the American Association of Directors of Psychiatry Residency Training (AADPRT) developed a survey to define the variables important to determining program quality from the resident's perspective. This study repeats the AADPRT resident survey, this time with psychiatry residency directors and their faculty. The purpose of this study is to answer four questions: Do residency directors and faculty agree on the determinants of quality in residency training? What are the dimensions of program quality from the perspective of psychiatry residency directors and their faculty? Are there distinct subtypes of psychiatry programs as represented by the values and priorities of their faculty and directors? Finally, are the determinants of quality for psychiatry residency directors and faculty the same as those for the residents?

There were 234 individual responses from 117 programs. The responses of the residency directors and faculty were in close agreement, and their results were pooled. Exploratory factor analysis revealed five factors underlying the data, which were interpreted as reflecting the curriculum, administration, and supportiveness of the program, the institutional reputation, and a hygiene factor. Multidimensional scaling resulted in three dimensions reflecting the context, content, and culture of the program. Individual preferences varied along a continuum rather than in distinct clusters based on demographics. The variation in preferences could be segregated into three subgroups, depending on the relative salience attributed to the program's curriculum (content) vs. the quality of the institution (context). The factor structure underlying the resident data was similar but not identical to that of faculty and program directors. MDS of the resident data could not be accomplished for technical reasons.

Based on these results, I recommend that formative and summative evaluations of psychiatry residency programs employ a multidimensional approach that assesses all five factors and allows stakeholders to reach decisions based on their own priorities and values. Benchmarking of indicators in each of the domains would facilitate a quality improvement approach by enabling investigation of the relationship between processes and outcomes. The context, content and culture of a program may provide a good model of the dimensions along which the market varies. Programs may find it useful to identify and market themselves on the basis of these dimensions and the five factors listed above.

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Session 4: Clinical Competencies (Arthur Elstein, [Discussant](#))



Student Morning Report: An Effective Method of Teaching Core Competencies in Changing Medical Times

Hilary M. Haftel



Purpose: Dramatic changes have occurred in the provision of in-hospital patient care. The pressure to decrease medical costs has led to decreased length of stay, despite increases in patient acuity. To expedite hospital discharges, rounds, a traditional teaching format, have been significantly streamlined. In many cases, students have been excluded from participating in workrounds, thereby decreasing their ability to present and discuss patients, a critical competency usually achieved in the third year of medical school.

To provide students a format to practice presenting patients and discuss initial patient evaluation, the Department of Pediatrics developed Student Morning Report (SMR). SMR is a twice-weekly conference that occurs throughout the six-week rotation and is supervised by a single faculty mentor per rotation. The mentors are hand-picked as excellent teachers and clinical role models.

The students meet for 12 one-hour sessions during which cases are presented. As a group, the students develop a problem list and differential diagnosis and, with the help of the faculty mentor, plan a diagnostic work-up. Cases are chosen ahead of time to provide the broadest selection of pediatric topics. The objectives of this study were (1) to determine if SMR would be effective in teaching presentation skills and (2) if students could generalize skills learned to other inpatient and outpatient settings.

Methodology: A pretest/posttest study design was employed. Students were surveyed before and after each rotation regarding their ability to perform different components of a patient presentation, develop a problem list and differential diagnosis, and their ability to generalize skills learned during SMR to other clinical settings. Students were asked their opinion on 15 different items, using a 5 point Likert-type scale. To control for maturation, post-intervention surveys were compared to the pre-intervention survey of the next group of students. Post-intervention results were averaged for each group and compared to the pre-intervention results, as well as the pre-intervention survey results of the subsequent cohort using a t discrimination test. Effect sizes were also calculated for each item.

Results: A total of 392 students participated in SMR between July 1996 and June 1999 of which 368 (94%) completed the study. Students demonstrated improvement in all parameters measured following SMR. Twelve of 15 items showed statistically significant changes at $p < 0.05$ and all items demonstrated significant effect sizes. All students agreed that skills learned during SMR would be useful in other inpatient (4.48) and outpatient (4.52) situations. All changes remained statistically significant when compared to pre-intervention surveys of the subsequent group, excluding maturation as an explanation for the results.

Conclusions: Student Morning Report, which provides a venue for students to practice presentation skills, develop a problem list and develop a system-oriented differential diagnosis, significantly improves students' assessment of these skills. Given the current trend to expedite workrounds on inpatient rotations, experiences such as SMR could be incorporated into clinical clerkships, providing students the necessary time to practice skills traditionally performed in other settings.



Ethics of Research in Medical Education

Discussant: Timothy Murphy

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Session 5: Student Assessment (Reed Williams, Discussant)



Grade Inflation: Identification, Motivation and Intervention

Melanie L. Richards

Background: A review of clinical evaluation grades of 192 students completing their third year surgical rotation over a one year period showed 76.6% of students received an "A".

Methods: To assess faculty awareness of grade inflation and to identify contributing factors at our institution, a survey was sent to 32 faculty members that grade students on their third-year surgery clerkship. The response rate was 62.5%.

The group of faculty members who admitted to participating in grade-inflation were then asked to identify factors which may have contributed to this grading behavior.

Results: Sixty percent of faculty members felt that students were not given the grade that they deserve. Seventy percent of faculty stated that students were given higher grades than they deserve. When asked if they have ever given a student a higher grade than they deserved, 61% said "yes". Contributing factors were as follows:

FACTOR	Faculty Members Attributing Factor to Grade Inflation
Medical school administrator pressure	27%
Student pressure	27%
Desire to avoid student confrontations	64%
Lack of exposure to students for grading	27%
Lack of objective evidence of student performance	73%
Lack of justification for giving deserved grade	36%
Impact on student residency selection	9%
Desire to have a positive faculty evaluation from students	9%
Improving student likelihood to match in a particular field	9%

Conclusions: These results determined that the primary reasons underlying grade-inflation at our institution were: 1) Lack of objective evidence of student performance 2) Desire to avoid student confrontations and 3) Lack of justification for giving the deserved grade. These issues are the most pertinent to address in order to reduce the occurrence of grade-inflation. The treatment of grade inflation depends on ongoing surveillance of the clerkship grades for distributions showing a large percentage of "A's" or "Honors". The factors that motivate and perpetuate this destructive grading practice should then be identified so that corrective action should be taken.



Reliability and Validity of Specialty Specific Final-in-Training Evaluation Papers (FITER's)

William Coke

Background: In 1996 the Royal College of Physicians and Surgeons of Canada (RCPSC) revised the final in-training evaluation report (FITER) for all residents applying for certification in Internal Medicine, by increasing the number of evaluation criteria from 14 to 19 items, and reducing the rating scales for each item from 5 to 4 categories.

Objectives: To assess the reliability of the new specialty specific FITER by comparing the ratings of residents across training programs. To determine the correlation between FITER scores and resident scores on the Internal Medicine Oral Examination, as a measure of validity.

Subjects: 276 candidates for the RCPSC internal medicine oral examination in 1996/97, representing all 13 Anglophone Canadian training programs.

Methods: Scores on the 19 FITER evaluation items for each resident were added to produce a global performance score (GPS). The mean GPS for residents from each program was then calculated, and the mean scores from the 13 programs compared using one-way ANOVA, and HSD non parametric testing. Factor analysis was carried out on the 19 evaluation items to determine the independent elements of resident performance being evaluated by the FITERS. The FITER scores for each factor were then compared to each resident's oral examination mark, using Pearson Product correlation. Two-way ANOVA was completed to identify any interactions between FITER scores, programs and the type of training completed by residents in their final year.

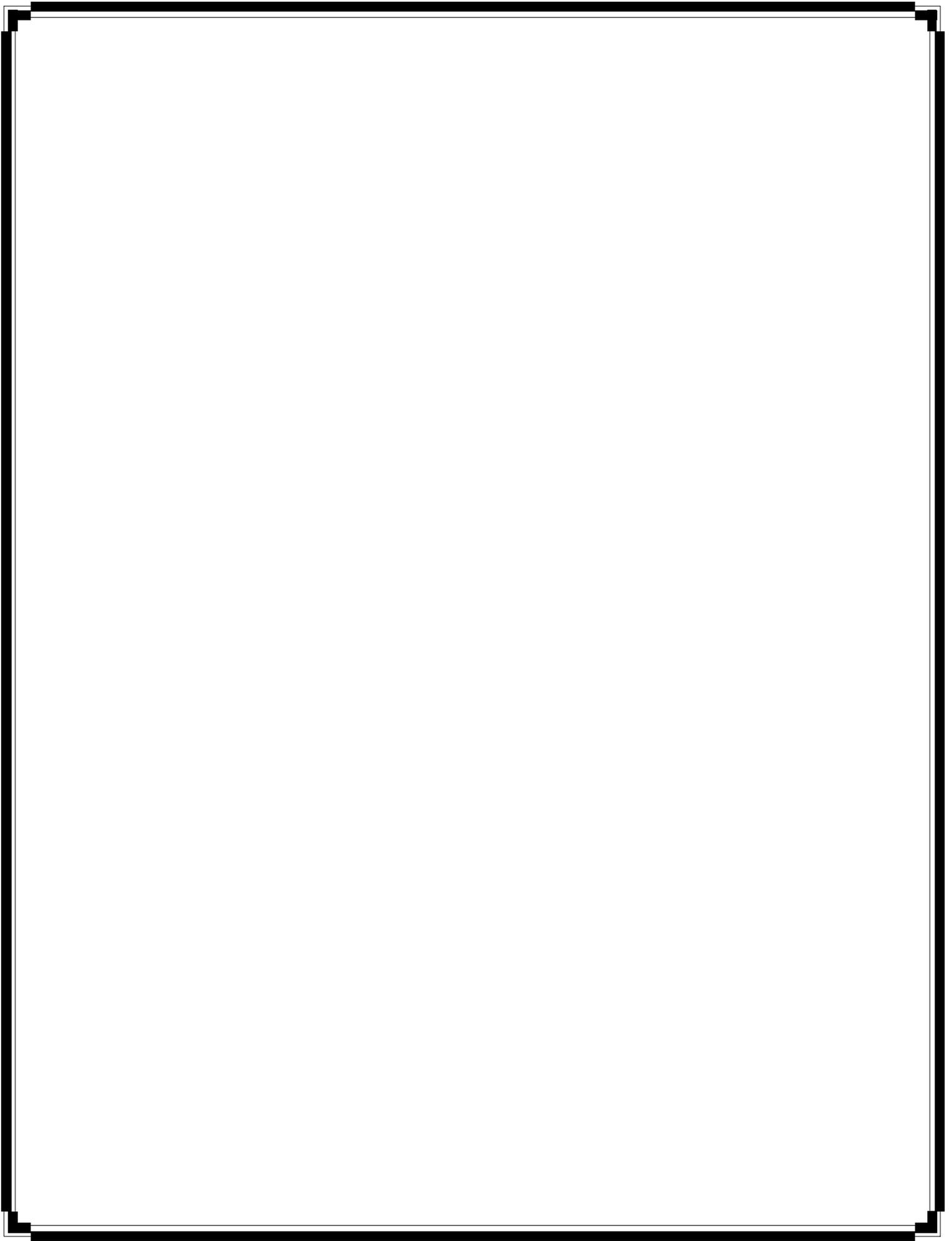
Results: The mean GPS scores for the thirteen programs ranged from 2.27 to 2.47, a statistically significant difference at $p < 0.001$, using both one-way ANOVA, and non parametric testing. Factor analysis revealed three main components of resident performance termed Clinical Performance, Related Knowledge, and Academic Performance. Each factor showed a moderate positive correlation with residents oral examination scores at 0.2, 0.23 and 0.32 respectively. Two-way ANOVA showed that significant differences in mean GPS scores related to program ($p < 0.001$) more than to type of training completed during the fourth year ($p = 0.043$).

Conclusions: Over the past 5 years RCPSC standardized examinations have consistently indicated that residents from all Canadian Internal Medicine programs demonstrate the same levels of clinical competence. This study revealed a moderate positive correlation between FITER scores and resident performance on the oral examination, suggesting that the Specialty Specific FITER's have predictive validity. Significant differences seen in mean GPS scores across programs, however, strongly suggest that individual programs use different standards when completing FITER's. FITER scores, therefore, cannot be used reliably for comparing resident performance across programs. While FITER's may be useful for determining eligibility for certification in Internal Medicine, they should not be used for deciding certification per se.

Faculty Panel: Online Educational Program Development

Joe York, Mark Gelula, [Annette Yonke](#)





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Poster Abstracts

SMART Lab Analysis

Donna Novickas, Kelvin Gilchrist, Mark Sauerland

Goal: The goal of this study is to determine if there was a difference between post-test scores and grades when race, gender and class were disaggregated for the SMART Lab courses.

Description: Evanston Township High School introduced the SMART (Science Math and Related Technologies) Labs in the 1996-97 school year. Three career areas were represented:

- 1.) Business Management and Information Systems
- 2.) Health Sciences and Human Services
- 3.) Industry and Engineering

Students represented a wide range of abilities and included all grade levels from freshman to seniors. Data from 526 students were used in this study. 68% were minority, 48% were female, and 45% were freshmen.

The SMART Lab curriculum is a self-directed computer simulation of different careers. Students selected ten career-based modules within a general area. Each module was seven days long and included a modular instructional delivery system with interactive experiments and written, auditory, visual, and technological components. The teacher's role was to be a facilitator and support the student's self directed learning.

Each student began each learning module by taking a pretest. At the completion of a module, a post-test was given, which was one of the components of the module grade. Other components of each module grade were the completion of worksheets, participation, and experiments.

Methodology: All module post-test scores and module grades were converted to numerical values and averaged for each student. Multiple t-tests ($p < 0.01$) were done comparing posttest scores in the areas of Health and Human Services and also of Business. Post-test data for the area of Industry and Engineering was not available. Grades in the area of Industry and Engineering were compared and analyzed using multiple t-tests ($p < 0.01$).

Results: The results indicate that there is no statistical difference between post-test scores of minorities and nonminorities, male and female for the areas of Business and Health and Human Services. There was a significant difference between grades in the area of Industry and Engineering when sex and race were compared. Nonminorities and females performed better. Freshmen, sophomores, juniors, and senior performed similarly on grades and post-tests.

Discussion: Results of the post-tests in the areas of race were surprising in comparison to the mainstream data on test results. The post-test scores were not the determinant for the module grade and may have lessened the anxiety of test taking. The computer-based method of learning may also have allowed the students to make their mistakes privately and allowed students to repeat the concepts until there was comprehension. The role of the teacher as facilitator allowed a non judgmental relationship to develop.

It is interesting to note the differences between post-test scores and grades. The differences between post-test scores and grades may indicate the influence of the subjective components such as participation in grades. The results of this study indicate the need to further expand this study to examine grades in the areas of Business and Health and Human Services and conduct a retrospective interview of students and teachers to better determine the factors responsible for the results.



The Development of an Educational Curriculum for an Apprenticeship Training Programme in Advanced Obstetrical Performance by Family Physicians in Saskatchewan RW Turnell, HJ Spooner, GD Carson

Objectives: In Saskatchewan except for Saskatoon, Regina and one regional centre there is a shortage of obstetricians. Numerous rural centres carry out significant volumes of obstetrics in which no physicians are qualified to perform Caesarean sections. The College of Physicians and Surgeons of Saskatchewan [CPSS] is the credentialling body for hospitals less than 100 beds. The CPSS receives each year applications by Family Physicians [FPs] from these centres requesting Caesarean section privileges. Rather than responding to a request by the CPSS to provide standards for credentialling only the operation of Caesarean section, we felt Caesarean delivery should be viewed in the context of comprehensive management of labour at the advanced level. The Department of Obstetrics and Gynecology of the University of Saskatchewan entered into a partnership with the College to develop a curriculum, methods of standardization and evaluation for "Advanced Obstetrical Skills Performance" for selected FPs. We will describe the curriculum development and present the results.

Methods: An initial draft of the terminal and enabling objectives were written by two obstetricians. Following editing, a meeting of a multidisciplinary team consisting of two obstetricians, rural and academic family physicians, rural general surgeon, anaesthetist, representative of the CPSS and educational consultant was held to review, comment, and revise the initial draft. At this meeting the methods for teaching and evaluation of each of the enabling objectives was produced. After a final meeting of the obstetricians and educational consultant a penultimate draft of the curriculum was circulated to the committee members and all of the obstetricians practising in the province [in order to increase buy-in] for comment and then final revision.

Results: The final curriculum will be presented including: terminal and enabling objectives and also the methods of teaching for each of these objectives. The curriculum that was developed can be taught in the traditional setting of a residency training programme in a University Medical Centre or in a rural/regional centre using the apprenticeship model. Evaluation in both cases would be by university appointed faculty evaluators. Since institution of the programme six FPs have been evaluated by the programme. A qualitative summary of their initial comments after re-entering practice will also be presented.

Conclusion: The process of development of this curriculum and the resulting documents may be applicable to other regions of Canada or the world with similar problems and to other teaching and evaluation problems encountered during residency training.

Introducing a Course in Patient Interviewing to Psychiatric Clerks
Angela Nuzzarello, Catherine Birndorf

Purpose: This study examines the effectiveness of a course in patient interviewing offered to Psychiatric clerks at Northwestern University Medical School. Specifically, we were interested in whether or not the course would 1-provide more opportunities for clerks to have interviews observed 2-increase the amount, timeliness and quality of feedback received 3-result in subjective improvement in students' ability to perform a psychiatric interview and to develop a differential diagnosis.

Methodology: All M3 students who had completed the psychiatric clerkship from July 1999 to the present, were sent a questionnaire regarding the feedback they received on patient interviews during their clerkship experience. The course in interviewing was introduced in January 2000, so we obtained responses from students who were offered the course and those that completed the clerkship before the course was offered. Fifty-seven students (47.6%) responded to the questionnaire.

Results: Students were observed performing an interview more often after the course was offered (mean 1.59 pre and 2.8 post) Students had more opportunities to observe other students performing interviews after the course (3.05 vs. 1.18 times). Timeliness of feedback on interviewing was improved following the inception of the course as was students' self-reported ability to develop a differential diagnosis. Students reported an improvement in interviewing skill over the course of the clerkship, both before and after the course was introduced. Before the course was offered, only 16% of students reported that someone other than a resident had given them feedback on interviews, whereas, after the course, 81% of students reported receiving feedback from someone other than a resident.

Conclusions: Incorporating a course in psychiatric interviewing for clerks can provide more frequent opportunities for students to be observed by attending physicians performing interviews. It also offers students more opportunities to observe interviews. The timeliness of feedback can also be improved. Students feel better able to develop a differential diagnosis after the course.

Anaesthesia Pgy-1 Selection: Canadian Resident Matching Service (CaRMS) Objective Dossier Scores Are Not Predictive Of Success In Structured Interviews

Salvatore M. Spadafora, John G. Fuller

Introduction: Over the past seven years, anaesthesia training programs have had to adapt to significant changes in the resident selection process because of the changes made to postgraduate medical education and the Canadian Resident Matching System (CaRMS). A recent study has identified that 83% of residency program directors regard the personal interview as the most important screening tool. The interview itself is a time consuming and expensive process for both candidates and interviewing staff. The staff costs alone are estimated at forty three US dollars per hour. The purpose of this study was to compare the ranking of anaesthesia PGY-1 candidates by an objective file grading scheme and a scored blinded structured set of interviews. Our hypothesis was that the blinded structured interview score would correlate with the scored information from the candidates' CaRMS dossier, and thus reduce or eliminate the need for many costly interviews.

Methods: Thirty eight applicants to the anaesthesia residency at the University of Western Ontario were studied. Each applicant's CaRMS dossier was reviewed and scored by the investigators according to an objective, weighted grading scheme derived from a review of the existing literature. The Objective Dossier Score (ODS) included academic data, reference and dean's letters, anaesthesia clerkship and elective grades, and the candidates' personal statement. The candidates were assessed in a structured personal interview by five members of the Postgraduate Education Committee, who were blinded to the contents of the CaRMS dossier. The interviews were scored independently using criteria shown to validate characteristics of a favourable interview. The ODS were then compared to the interview scores (SIS) by regression analysis.

Results: There was no significant statistical relationship between the ODS and the SIS with an R-squared value of 0.105.

Discussion: The ODS was not predictive of the SIS in the group of PGY-1 applicants studied. The personal interview remains an important tool in resident selection. Despite the relatively high cost to residency programs and PGY-1 candidates, a simple grading of the CaRMS dossier does not suffice nor does it replace the personal interview.

Resident Attitudes Towards Problem Based Learning Seminars In Anaesthesia.

Salvatore M. Spadafora, John G. Fuller, Mark H. Gelula

Introduction: Problem Based Learning (PBL) is an instructional method introduced in the Health Sciences in 1969, and adopted by many medical schools. A review of Canadian anaesthesia education highlights a need to place greater emphasis on problem solving rather than fact recall.² Our residency program has tried to incorporate these themes with a set of resident led PBL seminars similar to those reported in the literature.³ The purpose of this study was to assess resident attitudes towards this form of instruction.

Methods: Following a seminar on the foundations of PBL, residents were assigned seminar topics and developed PBL cases with a faculty supervisor. The seminars took place over a three month period. At the end of this period a written survey of eleven statements dealing with the PBL sessions, their format, utility, timing and applicability was completed by twelve residents. A five point scale was used in the survey from strongly agree to strongly disagree. The data was analysed using the Sign test with statistical significance set at P<0.05.

Results: There were significant positive resident attitudes to three areas. These were: that PBL sessions reflected problems encountered in the operating room (OR), one week was enough time to research an area, identified as important to the seminar discussion, and the learning of anaesthesia in the PBL format was relevant. There were no statistically significant negative responses.

Discussion: The residents have no negative attitudes towards PBL that reach statistical significance. This may reflect their desire to learn anaesthesia. Residents have a positive attitude towards the types of patient problems used in PBL, and their applicability to OR practice. It is not surprising that the residents found the PBL format relevant to learning anaesthesia material. As well, a week appeared to be adequate time to research areas identified as important to a patient problem in a PBL seminar. This method of instruction is of particular

relevance to resident training and future practise as it is in keeping with the instructional methodology and style of the Royal College of Physicians and Surgeons of Canada Maintenance of Certification programme.

A Structured Self Study Guide In The Clinical Clerkship Does Not Improve Recall Of Anesthesia Knowledge
Jim T. Watson, Salvatore M. Spadafora, Ronald J. Butler

Introduction: The purpose of this study was to determine if use of a structured self study guide (SSG) improved long term recall of information taught in a one week clerkship in anesthesiology.

Methods: A SSG consisting of a reading program and review questions was developed to compliment "a standard medical student handbook". This guide was provided to medical clinical clerks (3rd year) rotating through one of three teaching sites. The remainder of the teaching at the three sites was similar. One month prior to graduation (4th year), all students were asked to complete an anonymous voluntary 38 (short answer) question survey of anesthesia knowledge, with no time limits for completion. The survey was graded using standardized answers. Discriminators included were; site of anesthesia clerkship, number of months since rotation, and participation in an anesthesiology elective. Statistical analysis included two sample t-test with equal variance and multiple linear regression to model the test score.

Results: 55 out of 100 surveys were completed. One survey was eliminated, as clerkship site was not identified. 12 students were from the site using the SSG. There was a direct correlation between total score and time since clerkship and students who had participated in an anesthesiology elective scored higher ($p < 0.05$). Although the raw data showed a trend in favour of the site using the SSG, statistical significance was not achieved.

Discussion: Use of a structured SSG in clerkship did not improve recall of anesthesia knowledge at graduation from medical school. The survey was unsupervised by the investigators, thus sharing of answers and use of reference materials is not accounted for. The higher scores in students further from their rotation are puzzling. A trend towards higher scores in the SSG students is encouraging and may be a result of a small sample size (12 of 55).