



Introduction and evaluation of simulation in the MLS curriculum

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Academic Chair

Medical Laboratory Sciences

New Curriculum Model 2006

Academic Innovation



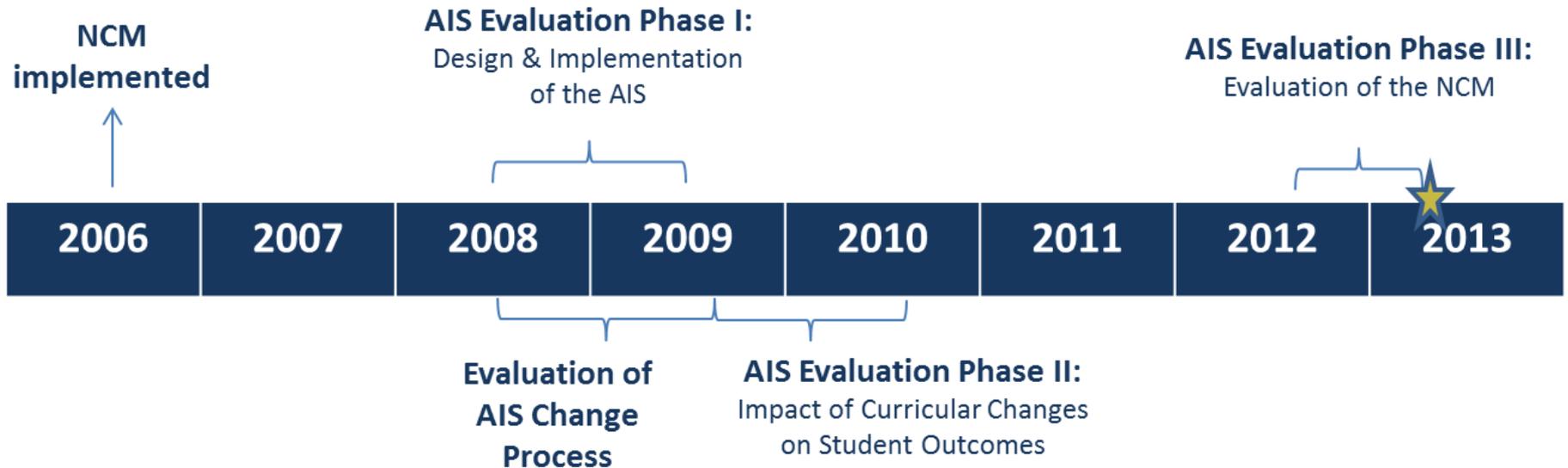
Clinical preparedness is the integration of technical and inter-professional competencies

Context

The New Curriculum Model was implemented starting in 2006 by Michener in an effort to enhance Students' readiness for clinical placement. It is understood to be the integration of the following three pillars:

- **Inter-professional education** (stand-alone courses and competencies integrated throughout each program);
- An intensive **simulation** semester (over the summer between didactic and clinical placement portions of each program); and
- Greater emphasis on **competency assessment**.

Evaluation activities over time (2006-present)



Cathexis Consulting

- Cathexis were retained as external consultants to evaluate the outcome of the New Curriculum Model (IPE, Simulation and Competency Assessment).
- The data collection and analysis were performed by Cathexis during the 2012-2013 academic year (6-7 years into NCM).

Key factors influencing NCM success

- Authentic simulation
- Faculty clinical relevance
- Faculty educative capability
- Clinical relationships
- Faculty buy-in, support and training
- Optimal clinical exposure
- Diploma vs. graduate diploma (entry requirements)
- Direct vs. indirect patient care professions

Quality of Incoming Students

- There is significant competition to gain entry into all 3 programs.
- The ratio of qualified applicants to available seats is high for all 3 programs (Genetics Technology > Medical Laboratory Science > Diagnostic Cytology).
- Qualified applicants have passed both academic and MMI thresholds.

MMI's – Multiple Mini Interviews

- Applicants to the programs were required to successfully demonstrate defined characteristics and behaviours through the Multiple Mini Interview (MMI) Process
- Applicants rotate through a series of stations that involve assessments of many “soft skills” such as communication skills, ethics, role playing, etc.
- Applicants must pass both the minimum educational standards as well as the MMI to be considered a qualified applicant.
- Final rankings for offers of admission are a composite of academic score and MMI score.

Data collection methods

- Telephone survey of Clinical Educators (N=200)
- Interviews with Clinical Liaison Officers* (CLO's) (N=14)
- Online survey of Michener Faculty (N=36)
- Focus groups with recent Graduates (N=46)
- Data mining of existing Michener data (Graduate Satisfaction 2005-2011 N=1002, Student Course Evaluations 2010 to 2012 N=880)
- Document and literature review (as required)

*Clinical Liaison Officer (CLO) is Michener's Faculty liaison to clinical sites and supports Students' experiences in clinical placement

Has Students' readiness for clinical placement improved since the New Curriculum Model was introduced?

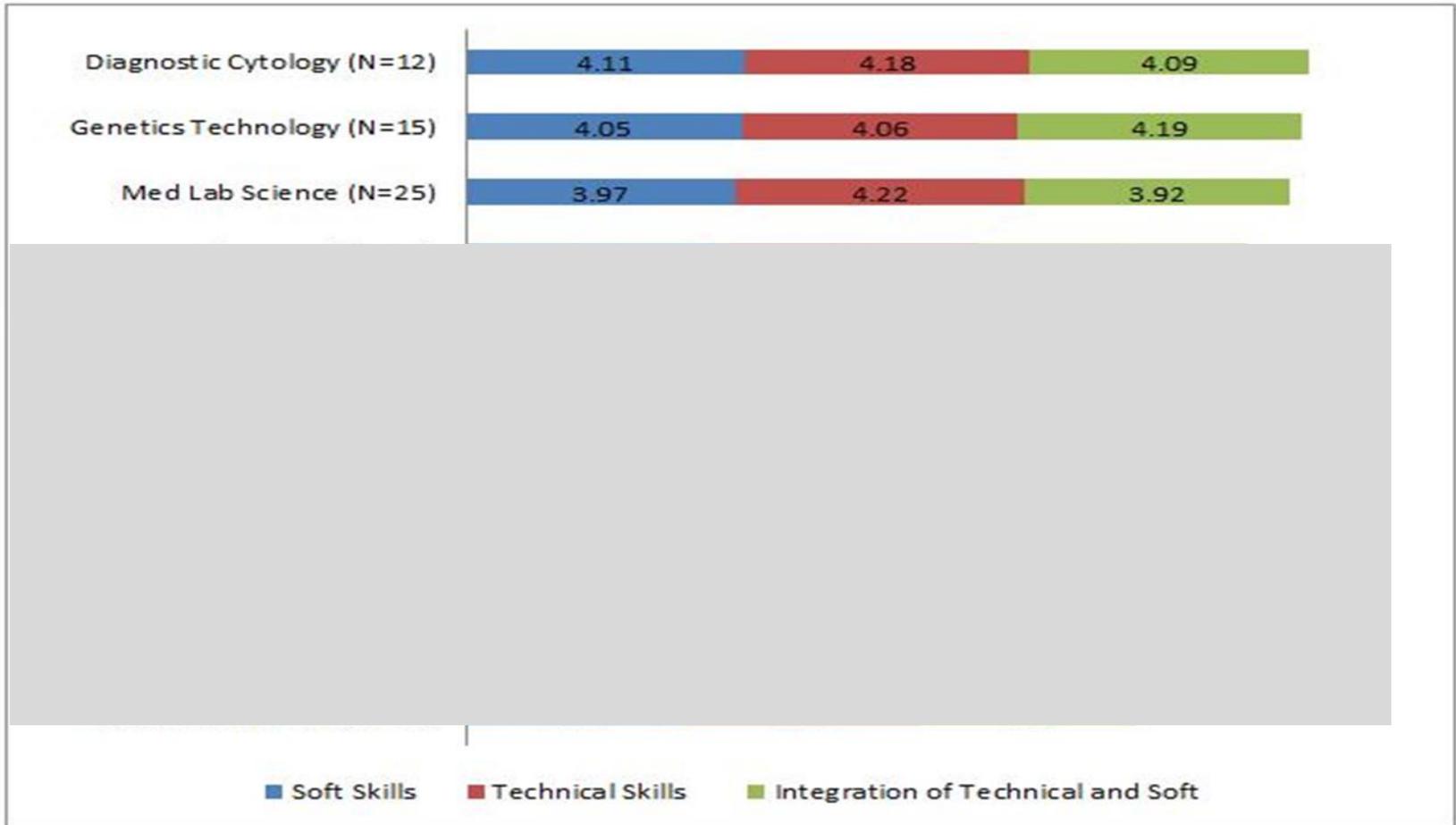
The following indicators were assessed:

- Students skills (technical, inter-professional/soft and skill integration)
- Student quality (pre-post; competitive assessment)
- Graduate satisfaction
- Clinical Partner relationships

Clinical Educators' assessment of Student skills

- The goal of the capstone simulation semester is the integration of technical and non-cognitive /inter-professional (soft skills).
- Students are generally stronger in their technical, communication and teamwork skills
- Students are still challenged with higher order complex skills (i.e., problem solving, critical thinking)
- The top ranked programs, (Medical Laboratory Sciences, Diagnostic Cytology and Genetics Technology), are primarily non-direct patient care professions

Student Skills

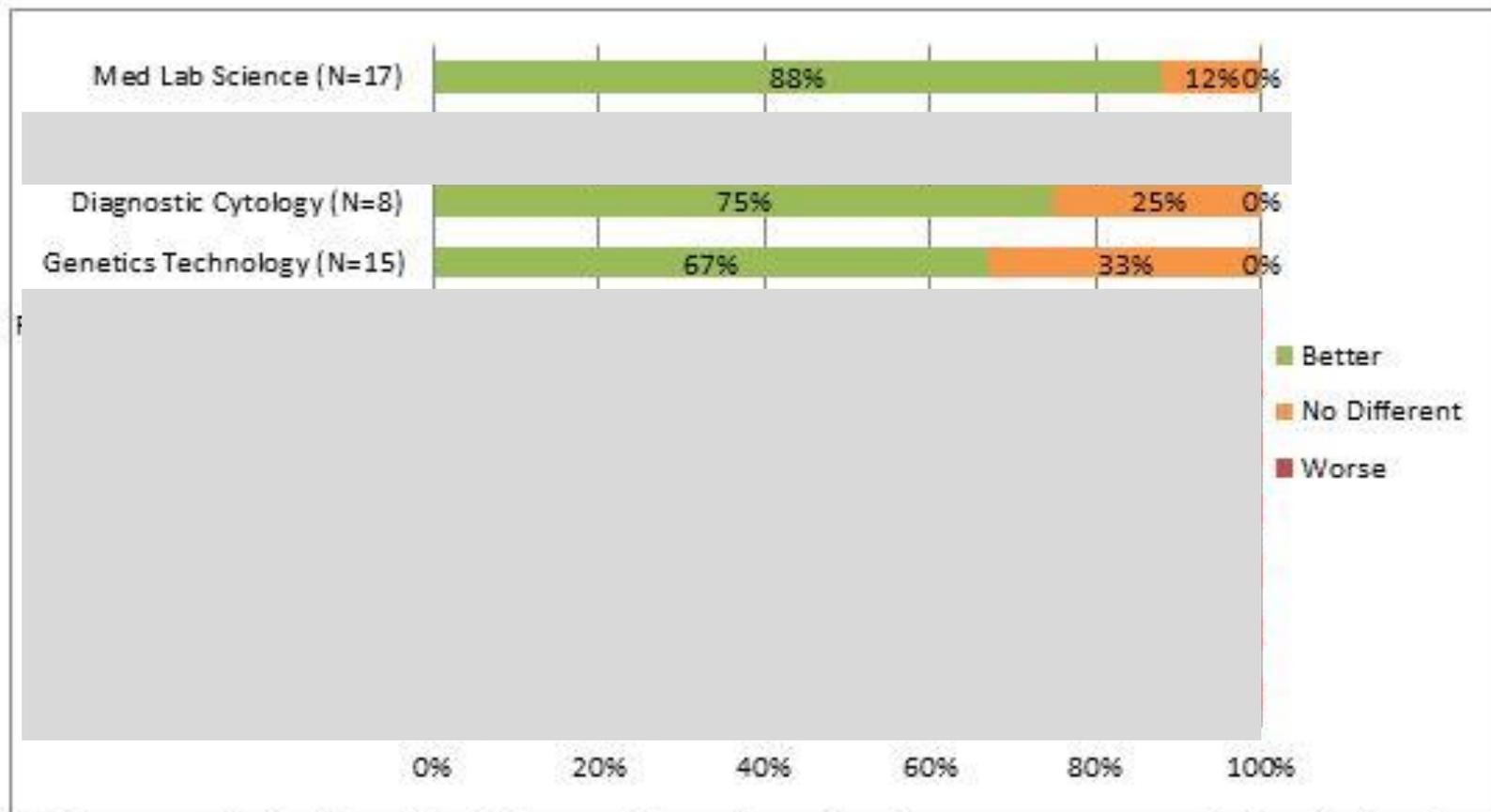


1= Very Poor, 2= Poor, 3= Adequate, 4= Good, 5= Very Good

Clinical Educators' assessment of the quality of current Michener Students

- Medical Laboratory Sciences, Diagnostic Cytology and Genetics Technology (Top Tier) consistently performed better than other programs across a number of indicators
- Professions requiring integration of patient-care and inter-professional skills with technical skills, were rated lower than the non-direct patient care programs

Clinical Educators' assessment of Student quality: Pre- and post-NCM



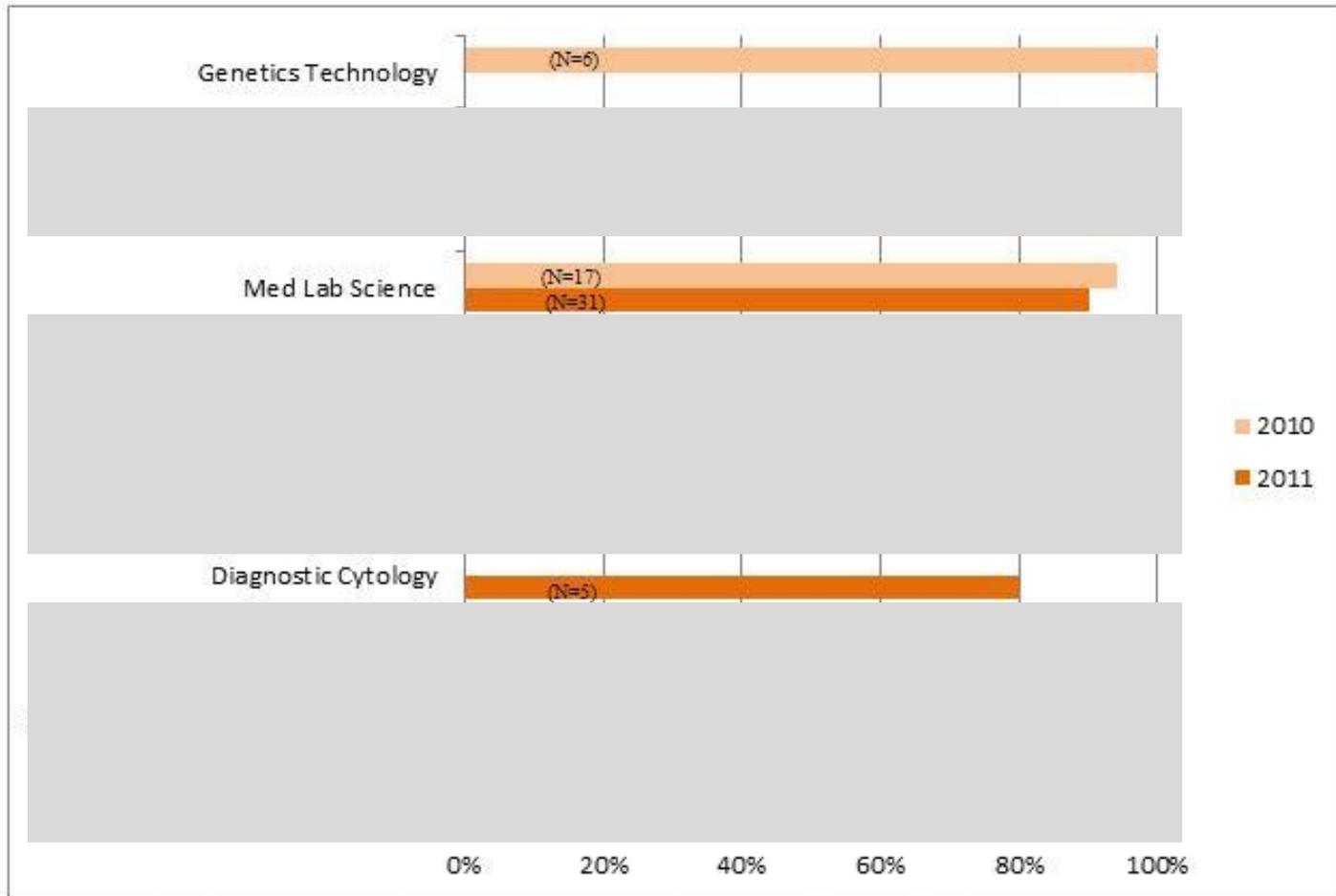
* In the survey, "quality" was defined for respondents as "overall performance - integration of technical and soft skills." Though somewhat broad, consideration of global/overall "quality" was deemed to be more meaningful for comparative purposes than more granular skill ratings.

Are Graduates satisfied with their educational experience?

Graduates' satisfaction with the quality of their academic experience varied by program:

- **More satisfied:** Genetics Technology and Medical Laboratory Sciences are generally more satisfied with their experience (90+%).
- **Less satisfied:** Diagnostic Cytology were less satisfied (80%).

Recent Graduates' (6mos -1 year) satisfaction with experience at Michener



How has the NCM affected relationships with Clinical Partners?

- Clinical Educators report positive relationships with Michener programs
- Some improvements include better communication and the introduction of online tools
- Stronger relationships were reported when their program's Clinical Liaison Officer (CLO) was active and visible; and when they felt Michener was responsive to their concerns and suggestions (i.e., acted upon feedback)

Thank you

Questions ??

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