

IPRO 301: Researching, Designing, and Improving the IPRO Program

Forecasting

Hannah Kolb

What is Forecasting?

Looking at past demand to predict future demand

Why is it Important to the Success of the IPRO Program?

Being able to forecast the demand of IPRO course will help the IPRO management plan the appropriate number and types of classes. This will help provide better courses and a better IPRO experience for students.

Results

Created a forecasting program and manual for the program to be utilized in the future
Forecasting model is currently being used for the program planing for the Fall 2008 semester.

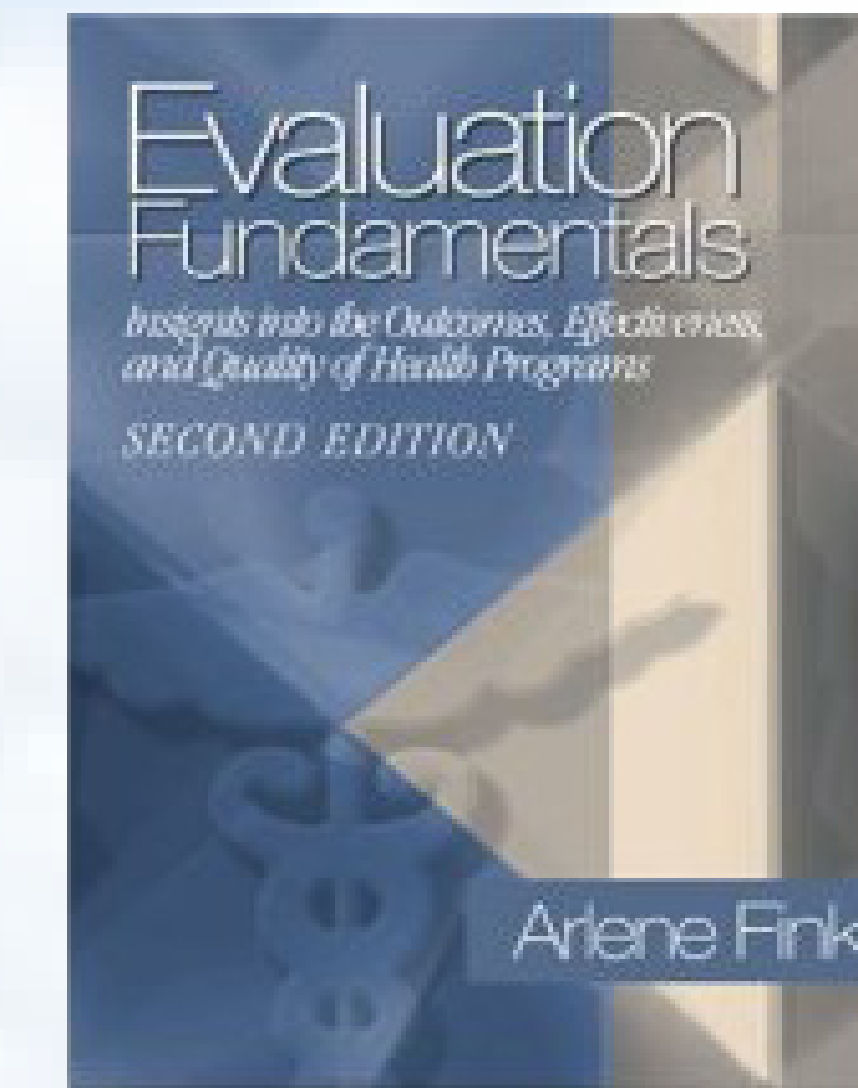
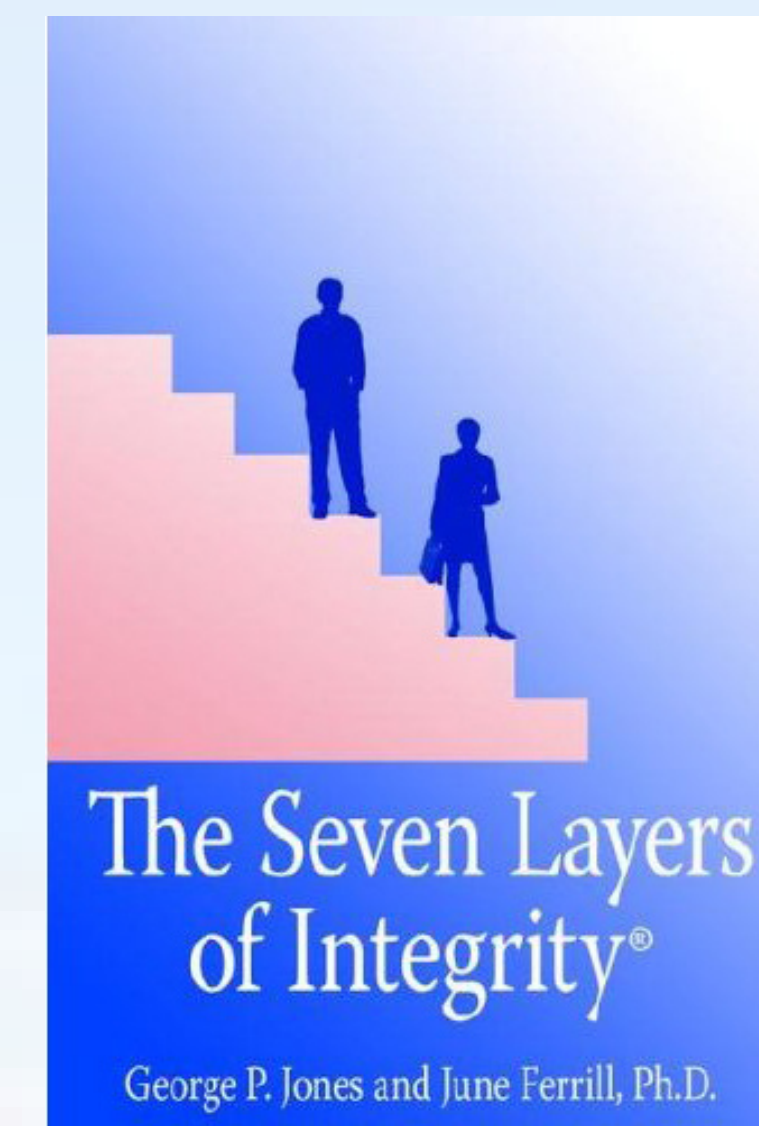
Next Steps

The program will be utilized in future semesters to continue to forecast enrollment

Example of Program Output

	S08	F08	S09	S09	F09	S10
UG1	0	0	0	0	0	0
UG2	1	1	2	9	15	20
UG3	5	6	7	76	87	98
UG4	25	30	34	166	196	226
206	238	212	251	290		
UG5	10	11	12	67	72	78
117						
G10	0	0	0	0	0	0
G20	0	0	0	3	7	0
OTHER	0	0	0	12	16	21
TOTAL	44	49	53	361	398	335
418	457	442	489	537		
ARCH	5	6	7	56	65	75
ENG	24	26	28	171	187	203
194	211	232	254	276		
BUS/MAN	1	1	2	23	37	51
CSL/PYSH	8	10	13	96	127	158
132	166	106	141	177		
TOTAL	44	49	53	366	405	443
424	466	454	503	553		

Overarching Principle: To conduct a multidisciplinary research program to improve the caliber of collegiate student learning.



Improving Learning Objectives Testing and Education

Carolyn Wood

What are Learning Objectives?

Learning objectives are the basic general criteria every student is expected to meet after finishing an IPRO course. Existing objectives are teamwork, communications, project management, and ethical awareness.

Goals:

- Define new learning objectives, design and innovation, pertaining to technical abilities
- Modify existing objectives test to reflect new LOs
- Shorten and condense test to increase student and faculty acceptance

Results:

Students showed good comprehension of prototyping, but not brainstorming. Industrial common misconceptions were also common among students.

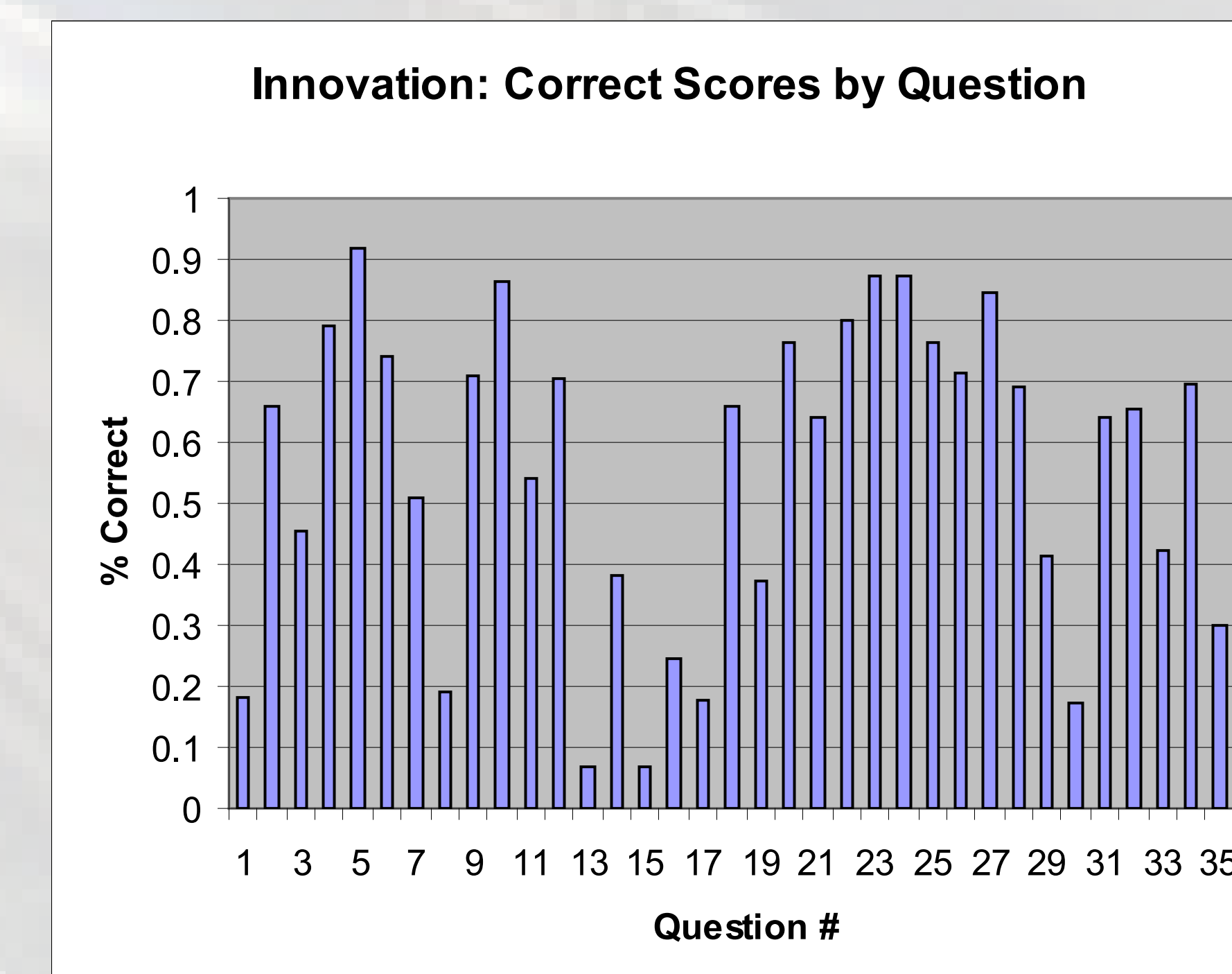
Test was condensed from 55 to 35 questions.

- Teamwork (10)
- Communications (10)
- Project Management (15)

Initial reactions to the new test are dramatic and positive! Former dissenters are now advocates.

Next Steps:

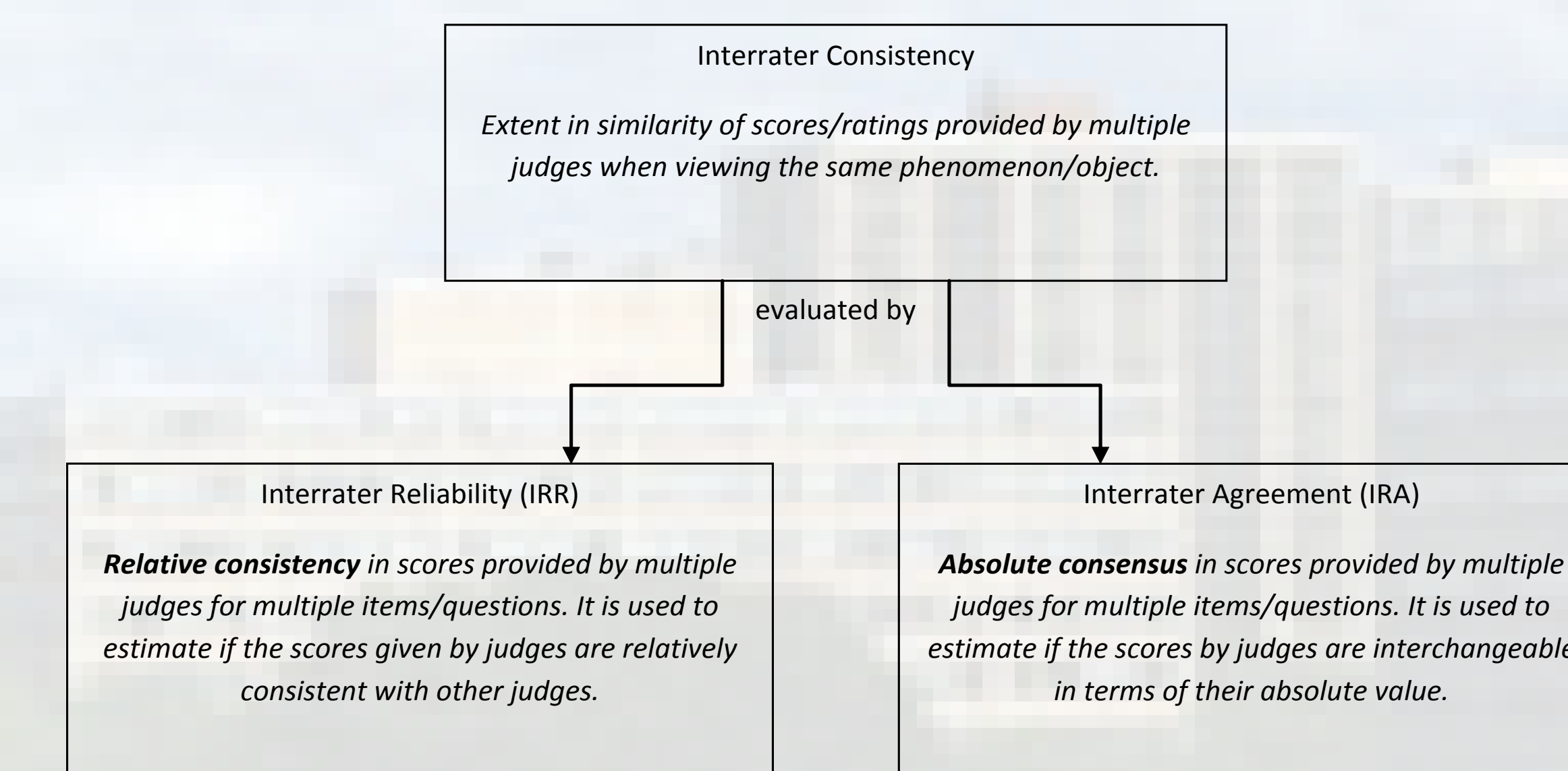
- Refine new version of the LO test and pilot in the summer
- Condense and develop study guide
- Gain more faculty and student acceptance
- Develop an intervention to increase student attainment of "research and design" or brainstorming objectives



Interrater Reliability and Interrater Agreement

Heling Shi

What is interrater consistency?



What is it important?

A system with low or unstable IRR or IRA would considerably undermine the validity of its program outcomes thus suggest inconsistency in the scores and raise question of the fairness of the scoring system. Therefore, it is important for the IPRO program to have reasonable IRR and/or IRA so all teams can be judged fairly on IPRO Day.

Results:

IRA analysis of exhibit and presentation judging for Spring and Fall 07 semesters

Accomplishments:

- Presented poster at Chicago Area Undergraduate Research Symposium in April
- Work-in-Progress paper accepted by Frontiers of Education and will be submitted a final paper in May.