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Implementing IPE in an Academic Health Science Center: changing Attitudes, Beliefs, & Knowledge

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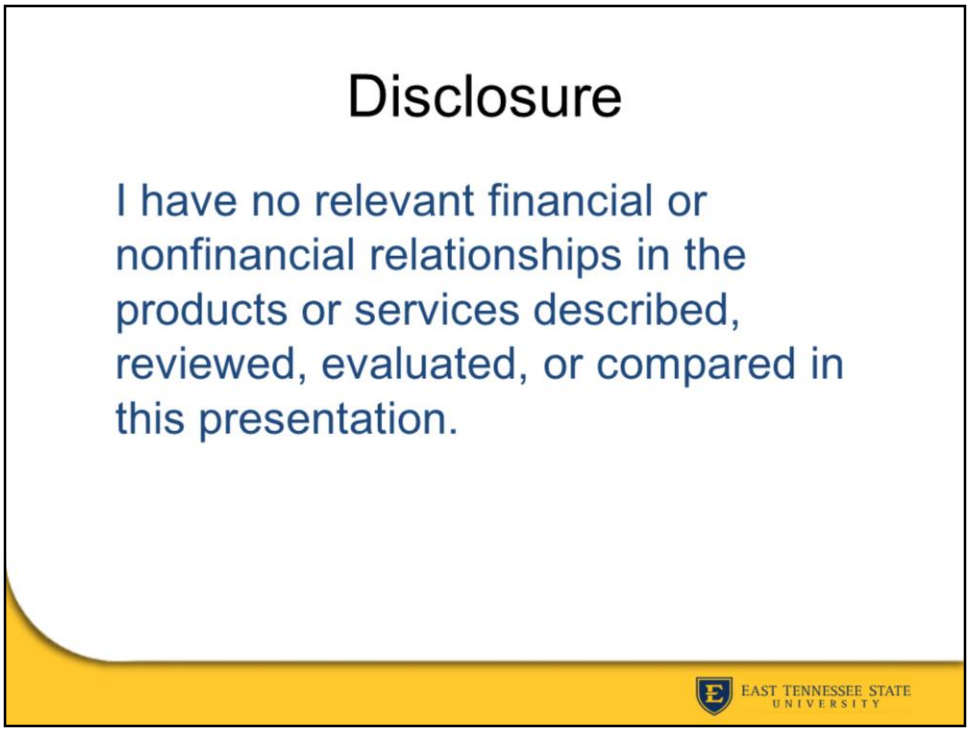
EAST TENNESSEE STATE UNIVERSITY

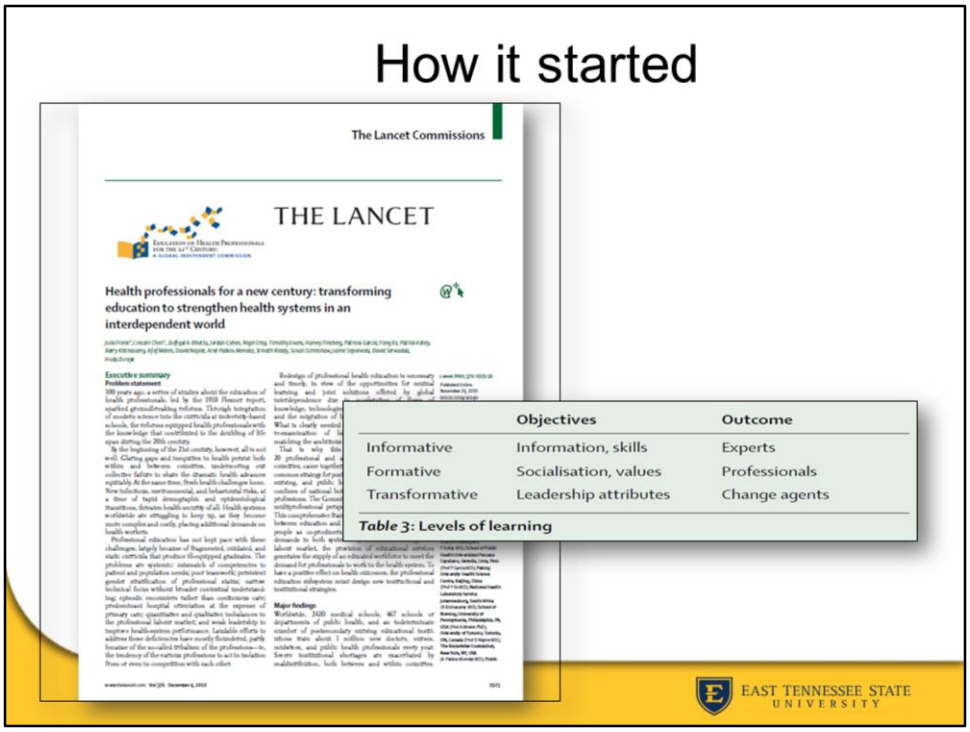
ASHA 2015 – Denver, Colorado



My name is Kerry Proctor-Williams and I'm speaking on Interprofessional Education at ETSU. I work for East Tennessee State University. I have no relevant financial or nonfinancial relationships to disclose.

My name is Elizabeth Alley and I am also speaking on IPE at ETSU. I am a graduate student at ETSU and have no financial or nonfinancial relationships to disclose.

East Tennessee State University (ETSU) is a regional university with 15,000+ students. It includes an Academic Health Sciences Center (AHSC) with an approximate total number of students of 4,250, which includes the Colleges of Clinical and Rehabilitative Health Sciences, Medicine, Nursing, Pharmacy, and Public Health. It also includes departments of Psychology and Social Work.



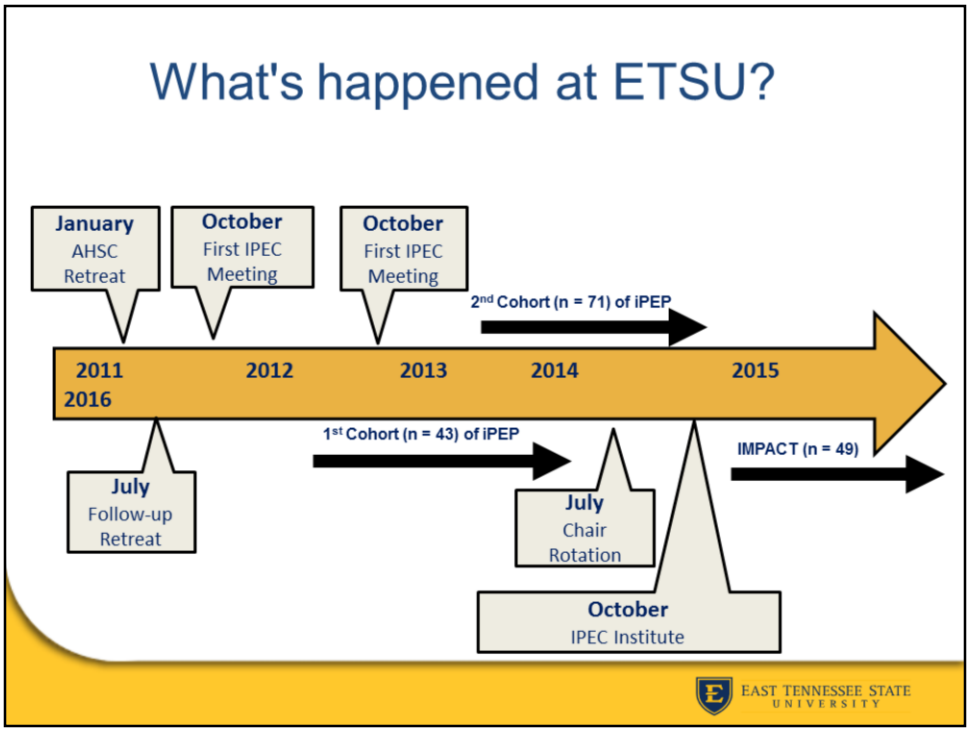
Several months prior to the first retreat of all deans, associate deans, and the Executive Vice President for Health Affairs a seminal article was published in the Lancet by Julio Frenk (2010) entitled *Health professionals for a new century: transforming education to strengthen health systems in an interdependent world*.

This timely article provided a foundational influence on the formation of the newly forming IPE experience at ETSU.

In January of 2011 a retreat of all deans and associate deans of the Academic Health Sciences Center, as well as the Executive Vice President for Health Affairs was held to expand the Interprofessional offerings at ETSU.

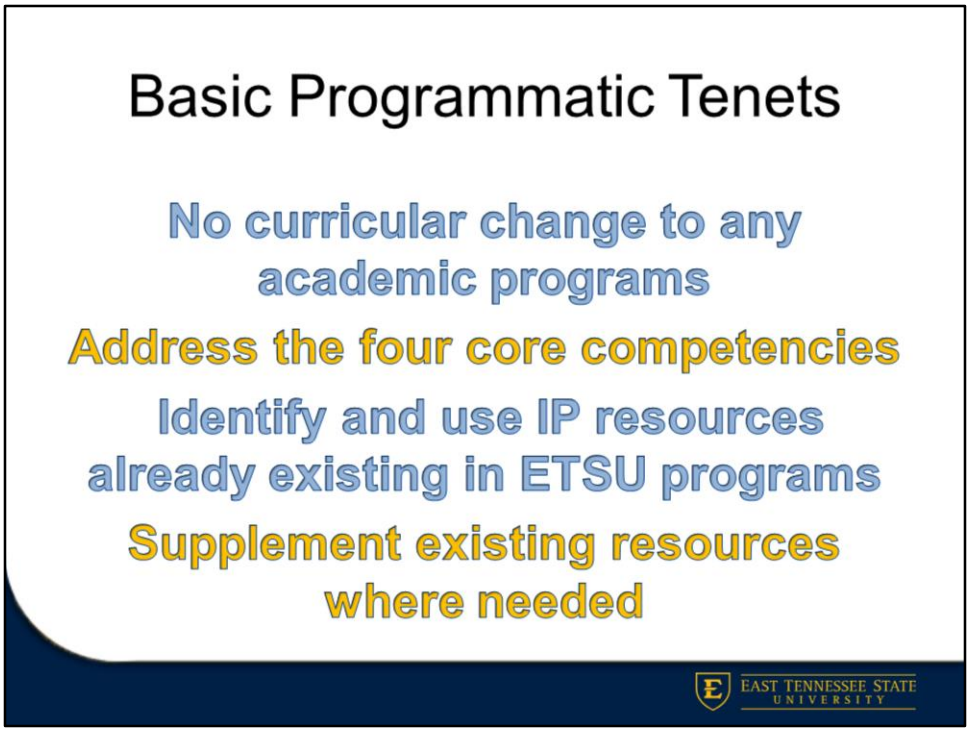
Prior to a second administrative IPE retreat with all deans, associate deans and the Executive Vice President for Health Affairs in July 2011, a second seminal publication was released: *Core Competencies for Interprofessional Collaborative Practice* by the Interprofessional Education Collaborative (IPEC, 2011).

It is within this document that the IPEC put forth the four competency domains of IPE (Values & Ethics for Interprofessional Practice, Roles/Responsibilities, Interprofessional Communication, and Teams and Teamwork) as well as learning objectives and suggested learning activities to be considered in each of the four competency domains. It was these 2 publications (Frenk et al and IPEC) that helped to form the foundational structure that would become the IPE experience at ETSU.



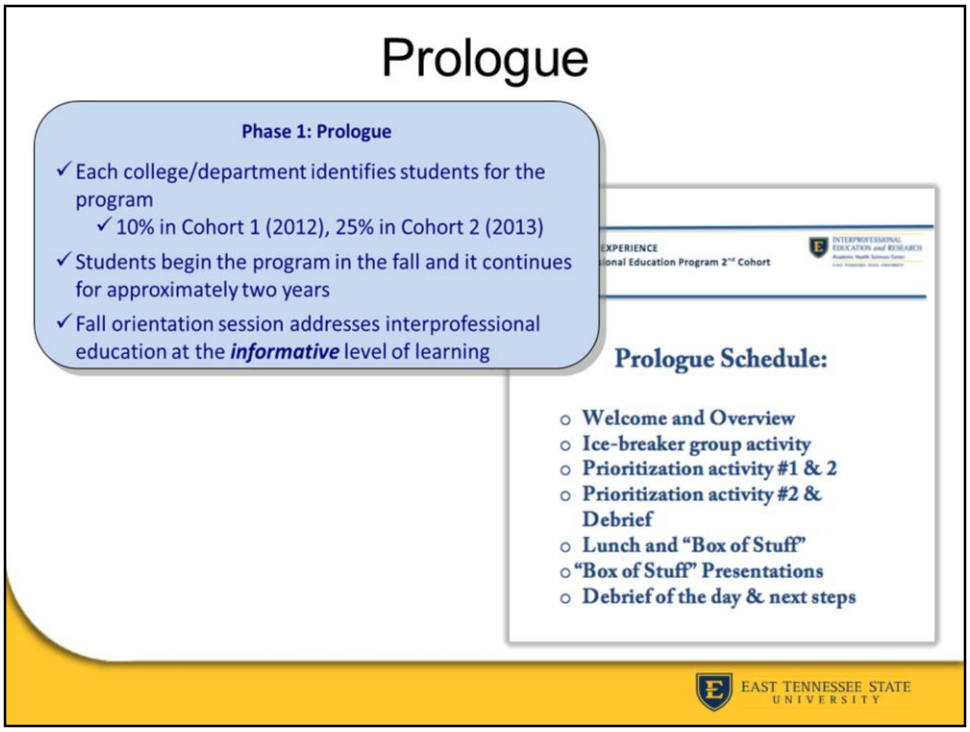
Cohort 1 began in August 2012 and finished August 2014

Cohort 2 began August 2013 and finished August 2015



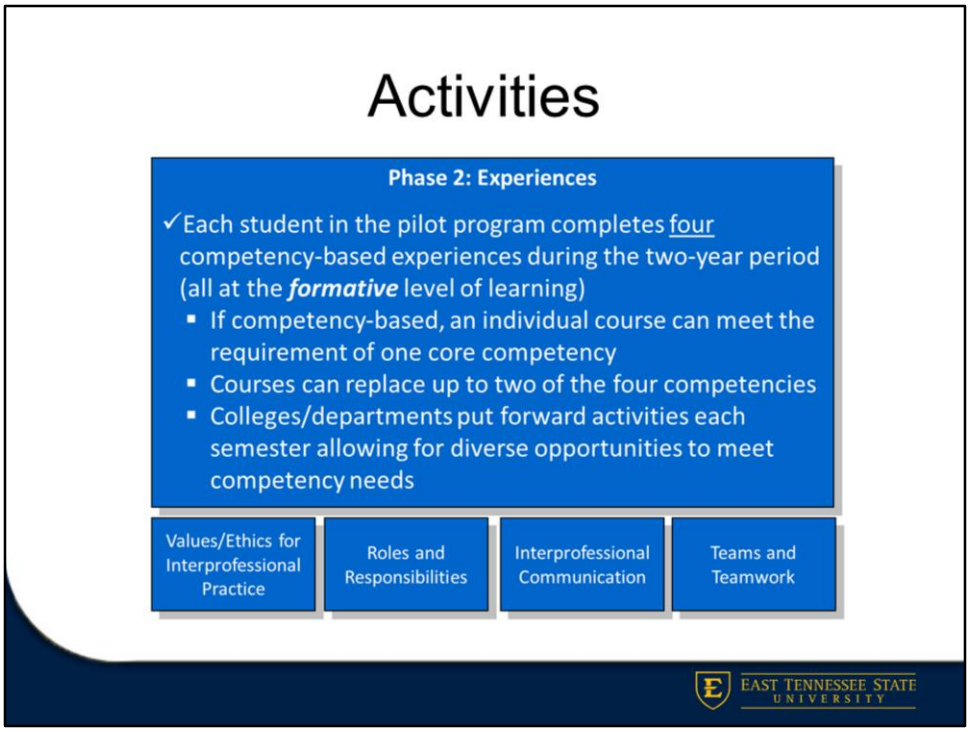
During the second retreat, some foundational principles were established for the content of the program.

In retrospect, I would characterize this approach as trying for the greatest gain with the least upset to what already existed, while trying to introduce IPE in to the university administration, faculty and students.



The World Health Organization's (2010) definition of Interprofessional Education[3]: "When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" was considered central to the creation of the ETSU IPE Prologue experience. The goal of the prologue experience was to bring together approximately 60 interprofessional students from five colleges within the ETSU AHSC, as well as the departments of Psychology and Social Work, to engage in a introduction to IPE and to learn about, from and with each other.

Upon arrival to the event, all students were randomly assigned to learning groups that included 4-5 students from various colleges and departments within the AHSC at ETSU. The makeup of the groups was not the same from group to group, but all groups included 4-5 students from uniquely different professional programs at ETSU.



Phase 2 of iPEP sought to expose students to each of the 4 core competencies for interprofessional collaborative practice by way of coursework and/or extracurricular activities over the course of 2 academic years (a total of 4 semesters).

Each student was asked to complete a course or activity for each competency. They could use up to 2 courses that they were already taking, but also had to complete at least two extracurricular activity

On a rotating basis, each college was assigned a core competency for which to seek extracurricular activity proposals from faculty each fall and spring semester.

The ETSU IPE Capstone event was designed to provide opportunities for education at the transformational level of learning. In keeping with the extra-curricular strategy of the IPE experience at ETSU, this event was held late in the spring semester on a Saturday and for most of the day. The event was held at a remote, off-campus location to provide a more unique environment for the day-long experience. It was a simulated refugee camp experience, wherein the interprofessional learners were tasked with the preparation of an area of land for providing service/care to a group of refugees (students were told to prepare for approximately 100 people to be coming to the camp).

The day began with a brief introduction of the students from the faculty on the scenario and what the learners' expectations were. Over breakfast, the students began to organize; first coming together as the entire group to create a list of priorities that would need to be accomplished in order to prepare the area of land to welcome 100 projected refugees.

Capstone Schedule:

Welcome & Overview

Student group planning session

Student group preparing area for refugees entering camp

Student group addresses challenges created by refugees & workers

Debrief of the day

IPE Pilot Program: Research

- Students were randomly selected to participate in the 2-year IPE pilot program
- If interested in the program, the students reviewed the informed consent document which included the purpose and procedures of the study
  - A demographic questionnaire was also completed and included: gender, age, ethnicity, SES, and residency

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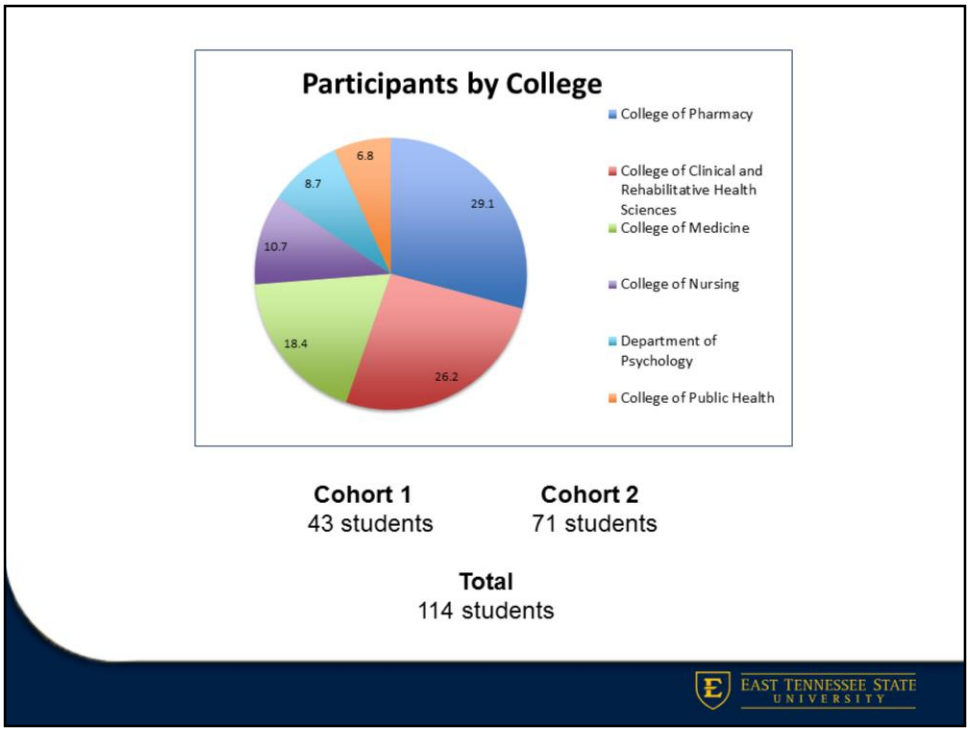
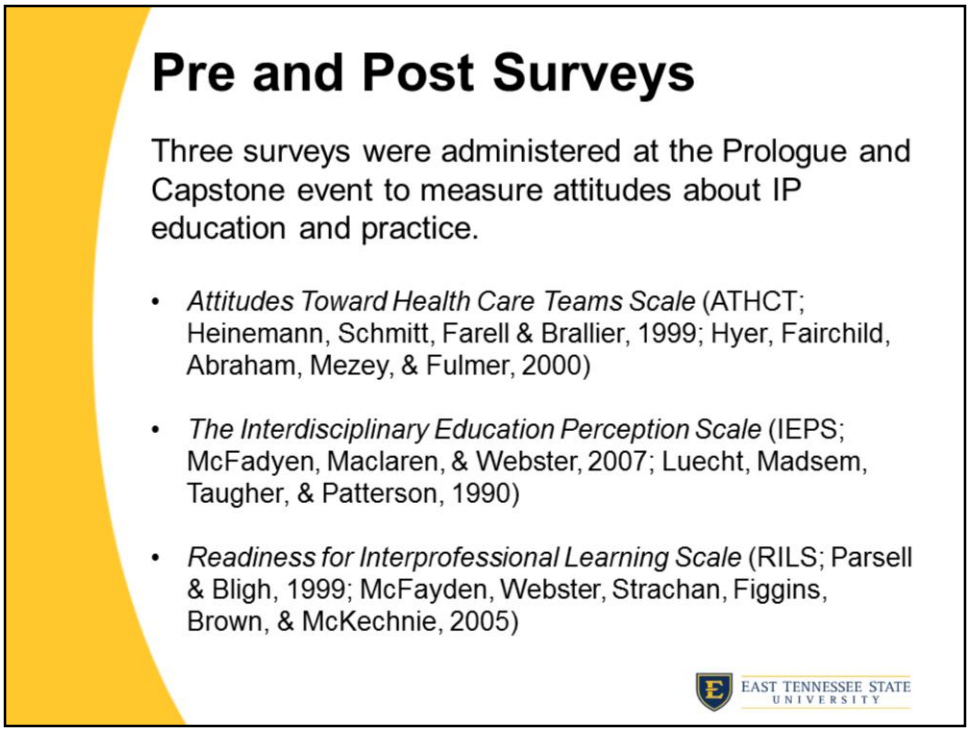


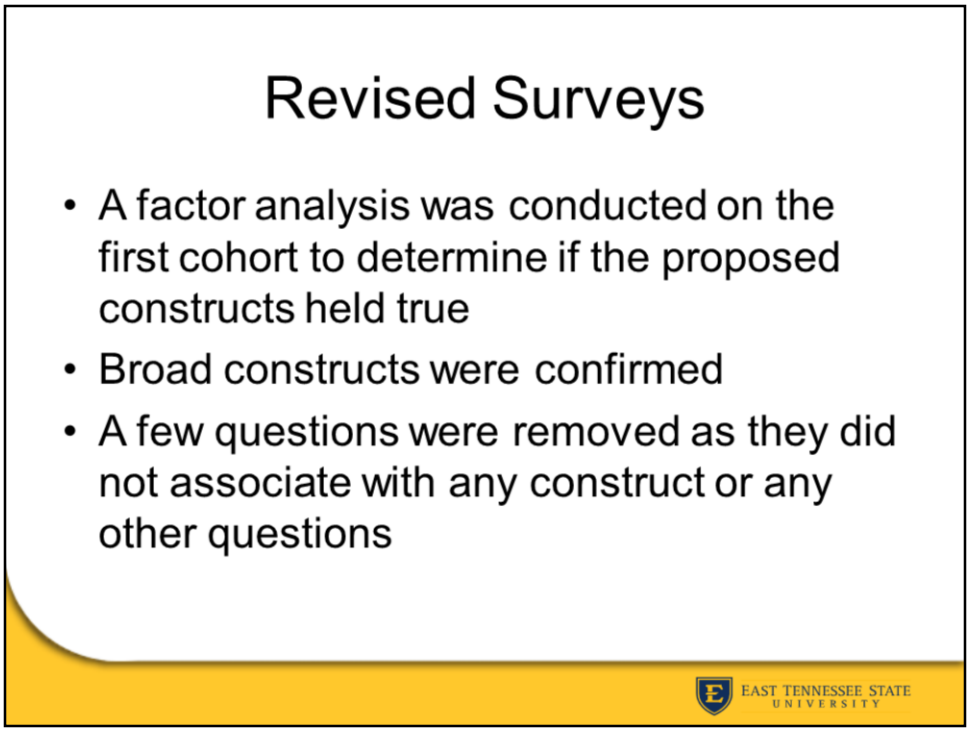
College of Clinical and Rehabilitative Health Sciences (CCRHS) includes audiology, speech-language pathology, nutrition, and physical therapy.

11 professions in all included

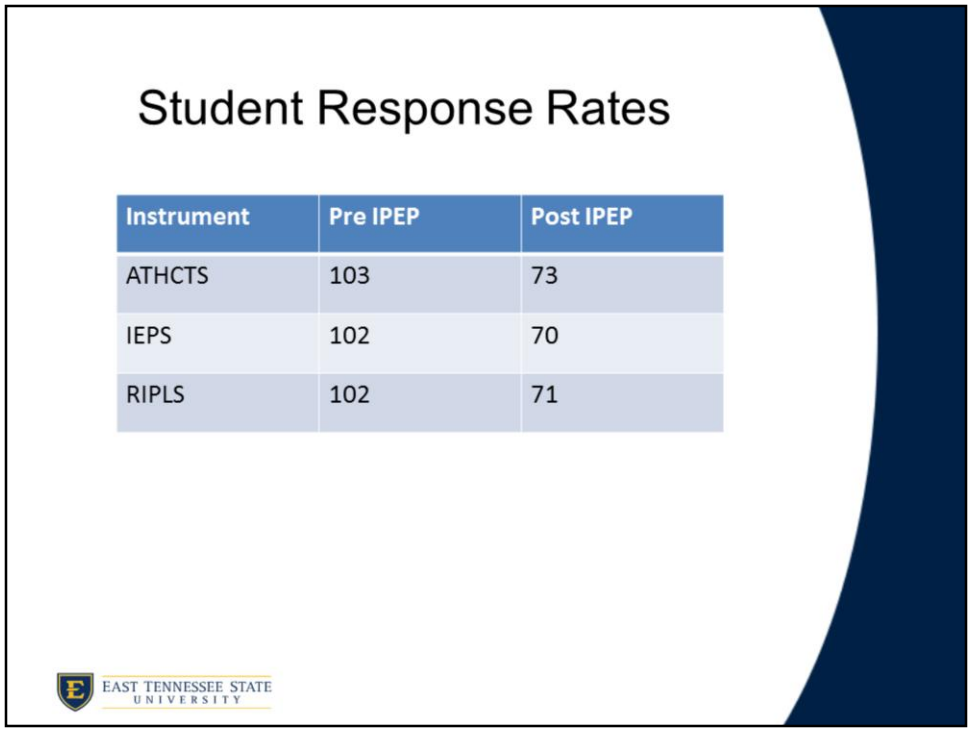


The following three surveys measured attitudes and beliefs of IPE. They were administered at the pre-program and post-program in order for us to measure a change in their attitudes.

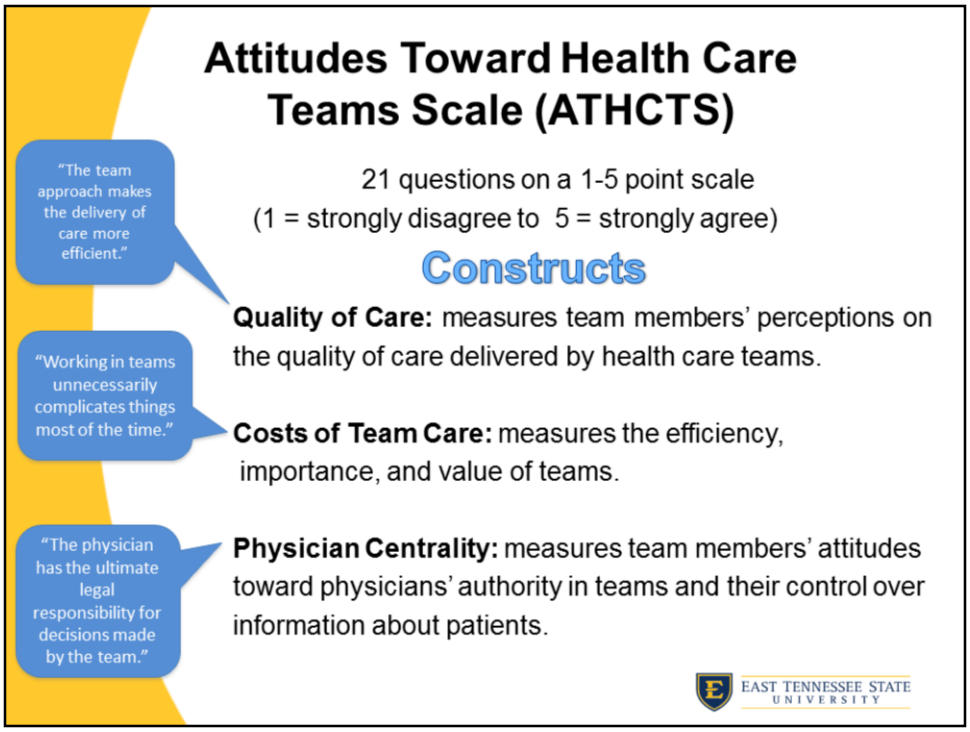
Mention where we website or how we came across these measures?



Using the first cohort, a factor analysis was conducted to determine whether the proposed constructs for each attitude survey held true with our students. While the broad constructs were confirmed, there were a number of questions from the original survey that did not associate. The responses for these questions were excluded from the analyses. A brief description of each survey follows.



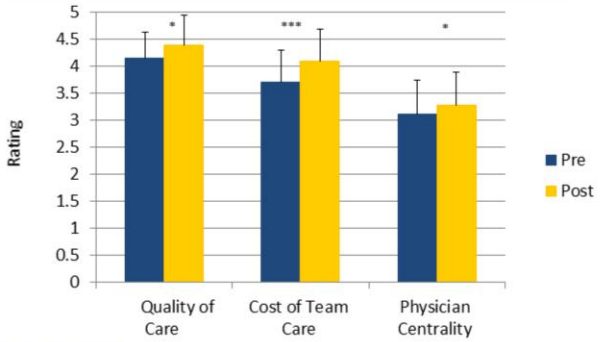
Here is the response rate from students for the three surveys. As you see the response rate for the post-program was significantly lower. This was due to students not attending the final Capstone event.



The boxes on the left side display example questions for each construct. The ATHCT covered three constructs. QOC measured students' perception of the QOC and teamwork by health care teams. COTC measured the efficiency, importance, and value of teams. PC measured the students' attitudes towards physicians and their roles in a healthcare team.

Attitudes Toward Health Care Teams Scale

ATHCTS	t	p
Quality of Care	2.29	<.05
Costs of Team Care	4.27	<.001
Physician Centrality	2.34	<.05



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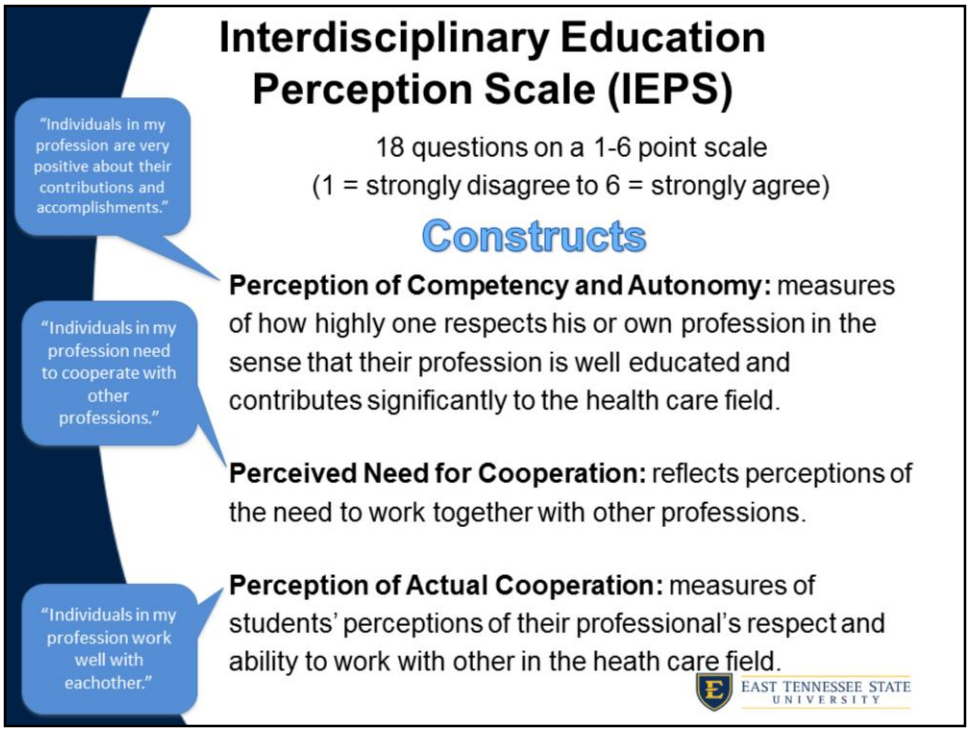
*p <.05; *** p <.001

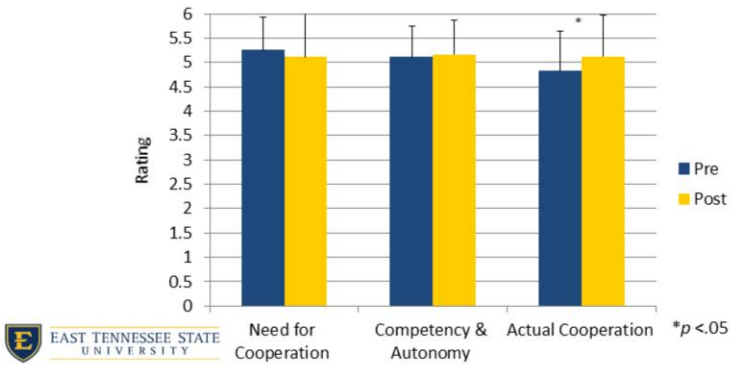
Students rated QOC the highest, then COTC, and finally PC. The ratings for all constructs improved at statistically reliable levels pre- to post-program.



The IEPS also has three constructs. Perceptions of Competency and Autonomy measured to what degree students respect their own profession. Perceived Need for Cooperation measured the students' perception of the need for collaboration between healthcare professionals. Actual Cooperation measured their actual perception of collaboration.

Interdisciplinary Education Perception Scale

IEPS	t	p
Perception of Competency & Autonomy	0.12	.86
Perceived Need for Cooperation	-0.74	.46
Perception of Actual Cooperation	2.12	<.05



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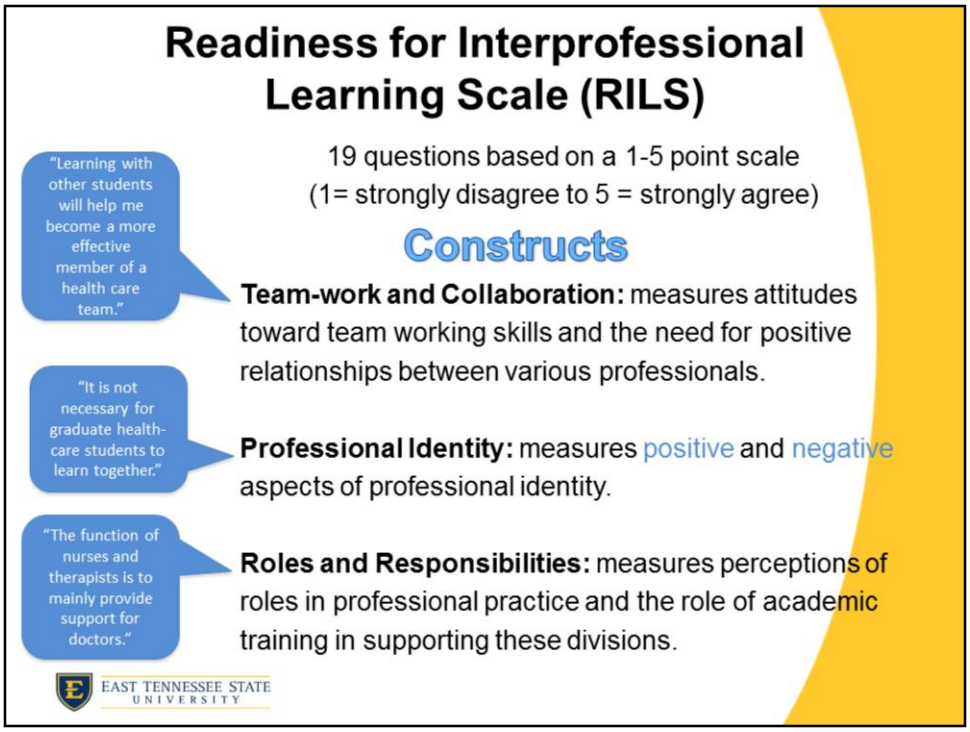
*p <.05

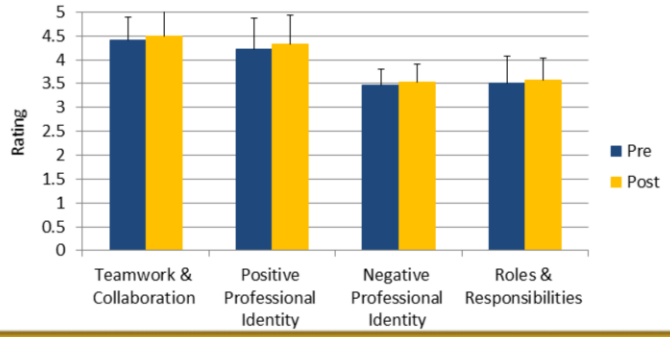
Students rated Perceived Actual Cooperation slightly below the Perceived Need for Cooperation and Competency and Autonomy at the pre-test. There was a statistically significant difference pre to post test for Actual Cooperation.



The RILS was developed to measure attitudes and perceptions and to determine their readiness for interprofessional learning and scale. Teamwork and Collaboration measured students' perception of teamwork and their relationships with other health care professionals. The Professional Identity construct measured positive and negative aspects of professional identity. Finally, roles and responsibilities measured students' perceptions their own role and other professionals roles in the health care team.

Readiness for Interprofessional Learning Scale

RILS	t	p
Teamwork and Collaboration	1.40	.17
Positive Professional Identity	1.42	.16
Negative Professional Identity	0.84	.06
Roles and Responsibilities	1.03	.30



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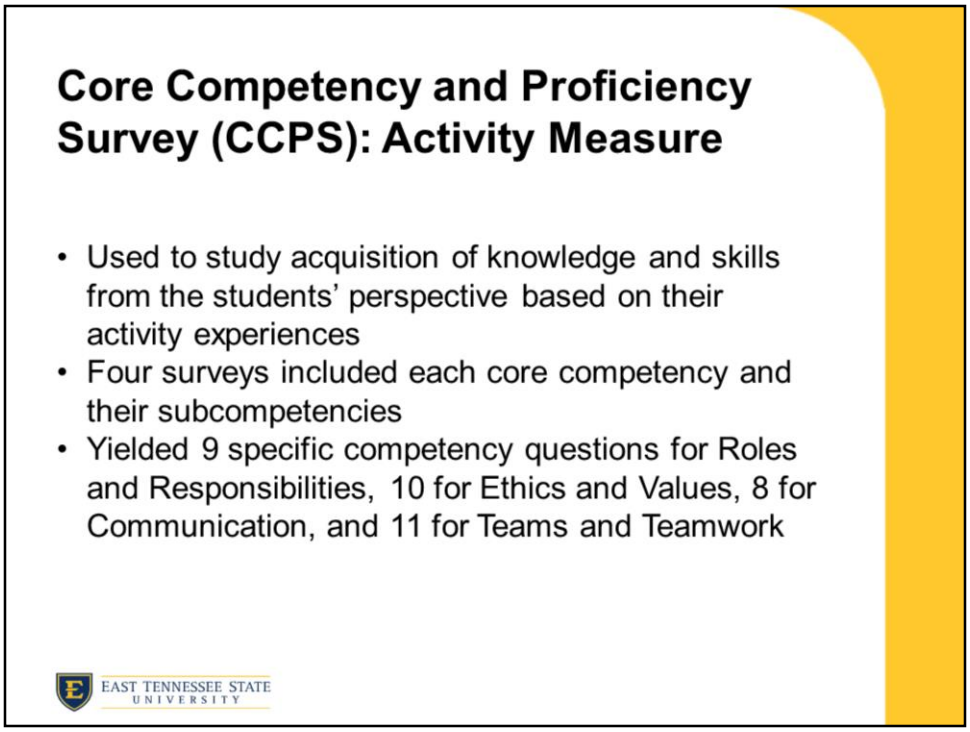
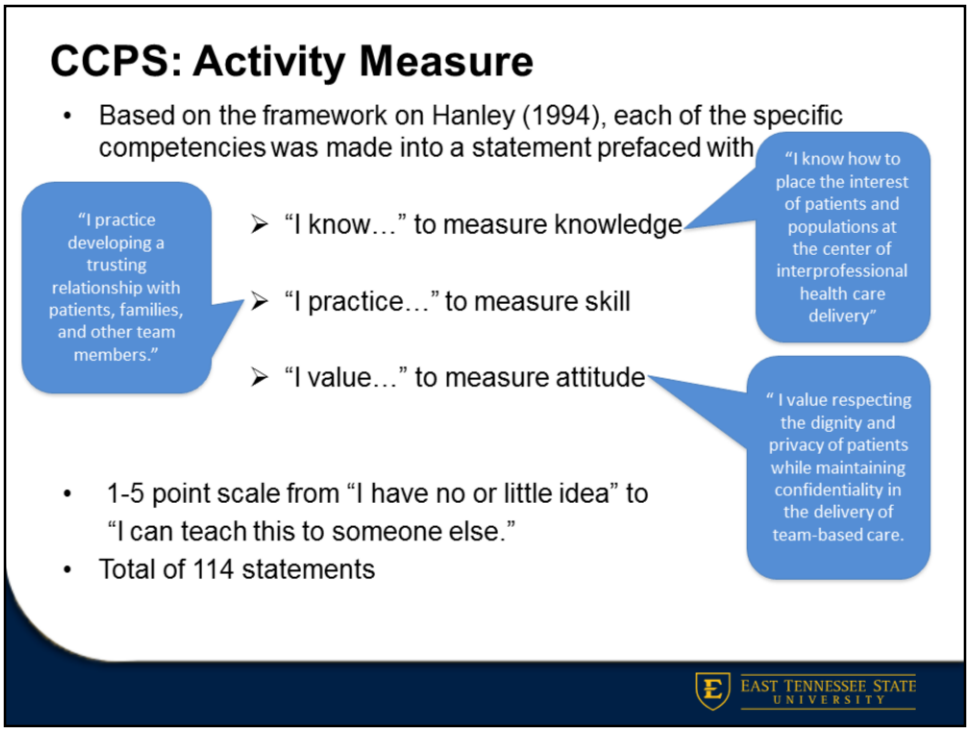
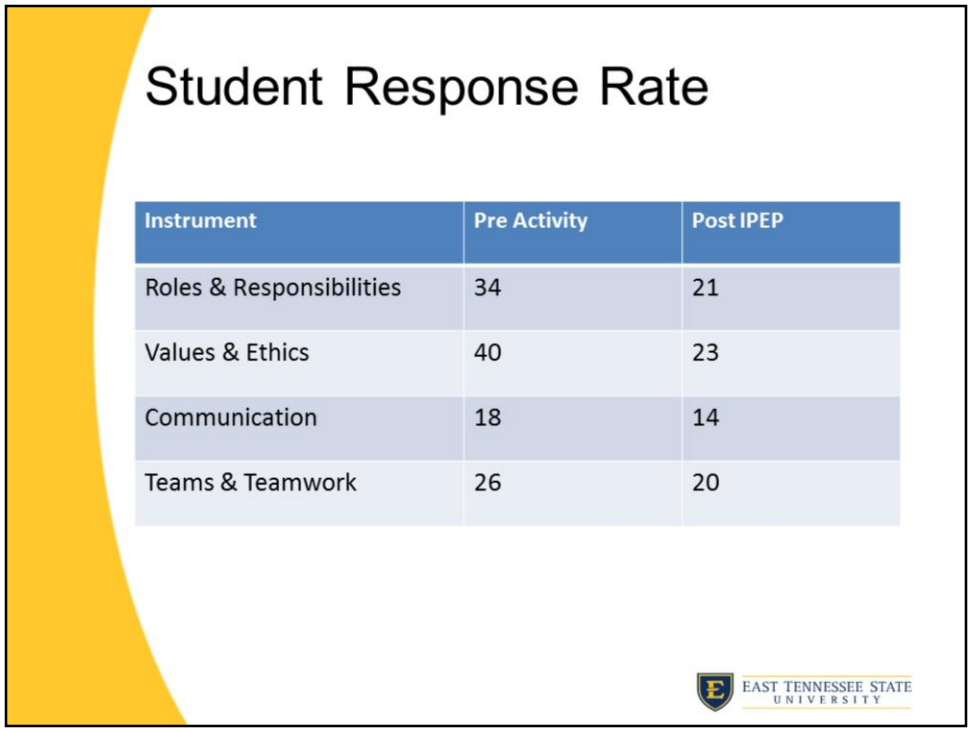
Students rated Teamwork and Collaboration higher than any other construct. There were no differences pre- to post program for this survey.



The CCPS survey was given prior to and following the activities to measure the acquisition of knowledge and skills from students' experiences. There were four versions of CCPS, one for each of the competencies (Ethics, Communications, Teams, and Roles and Responsibilities). Each of the competency-specific surveys had a different number of questions because each competency had a different number of subcompetencies.



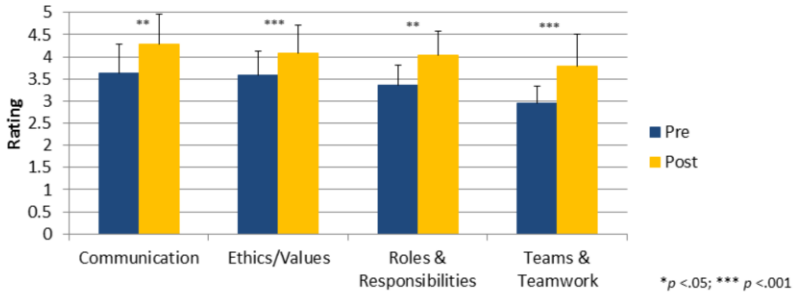
Each survey was formatted based on the work of Hanley using the "I know" "I practice" and "I value" framework. Know measured knowledge, practice measured skill, and value measure attitude. 1-5 point scale from "I have no or little idea" to "I can teach this to someone else." In all there were a total of 114 statements including 4 different surveys.



A total of 43 students completed both pre and post surveys. While all participant data was included within each time period analysis, only the data of those completed both pre-and post-program or activity were included in the pre-post comparison.

Activity Competencies

Core Competencies	df	t	p
Communication	1,11	3.72	<.01
Ethics/Values	1,17	4.26	<.001
Roles and Responsibilities	1,15	3.53	<.01
Teams and Teamwork	1,14	5.09	<.001



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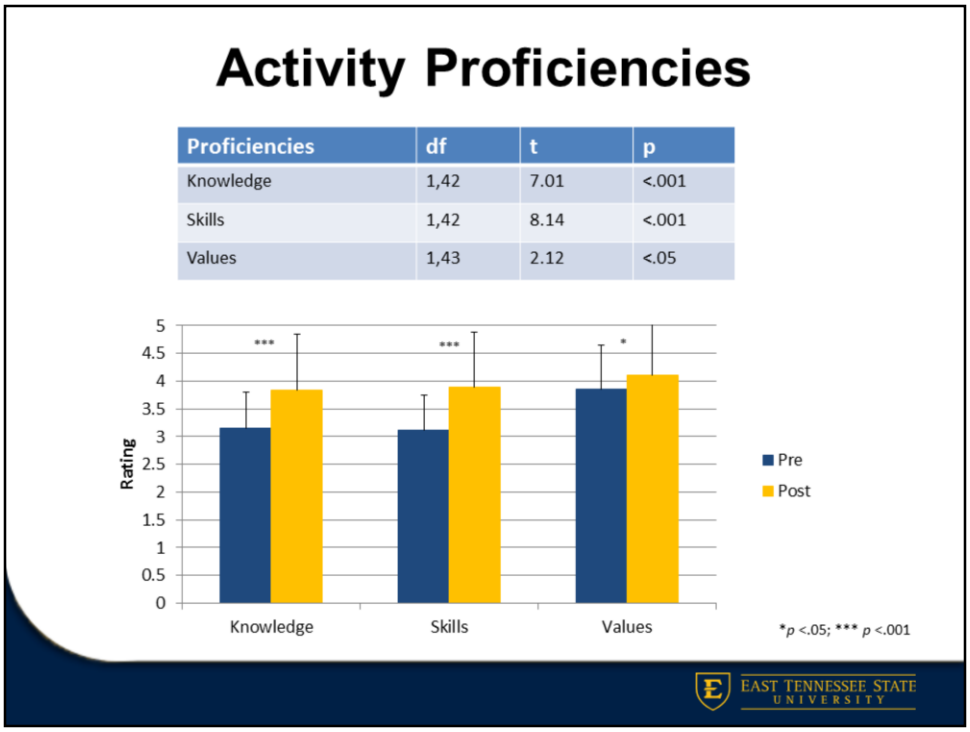
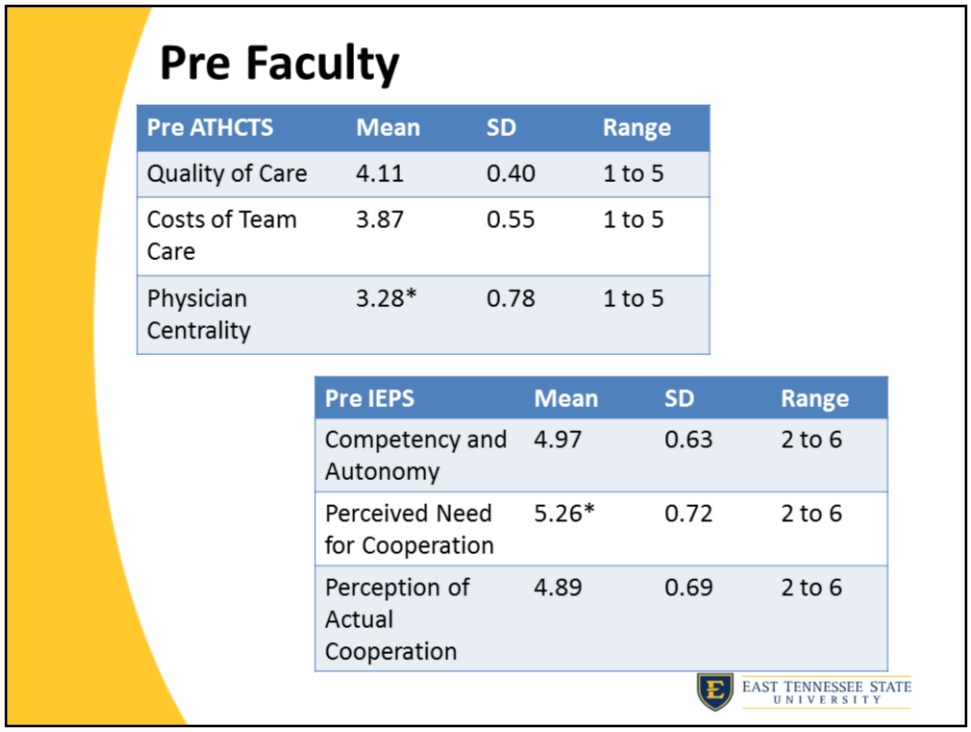
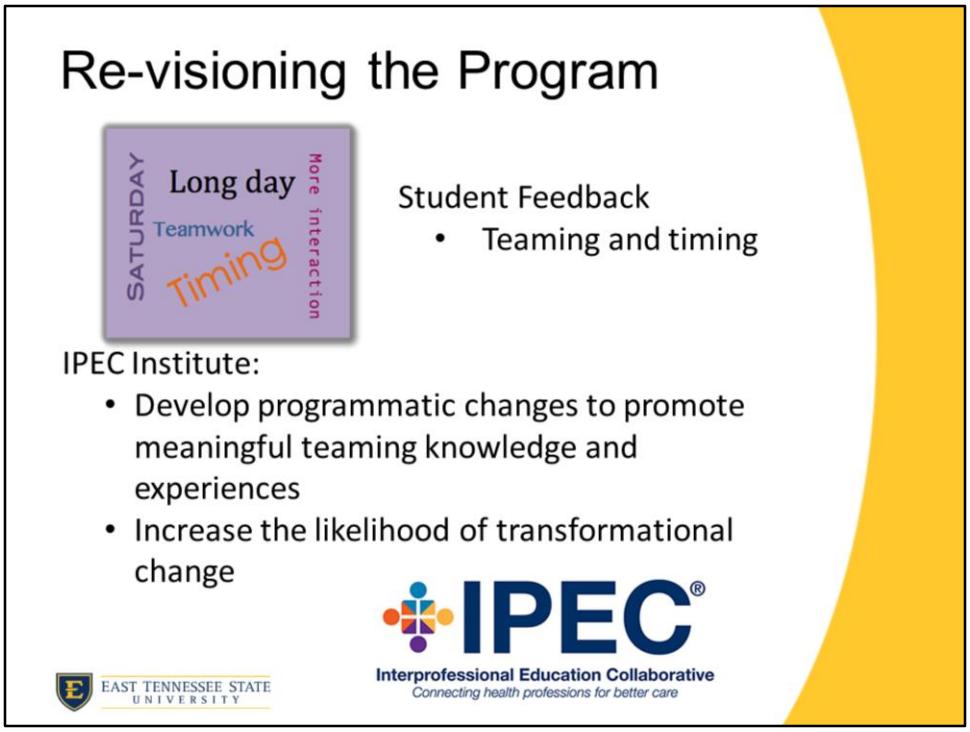
Students ratings for valuing core competencies were significantly higher following participation in activities.



To determine whether students' knowledge and skills changed pre- to post- activity we used a composite of the specific proficiencies and compared them pre to post. Student significantly increased their ratings for both knowledge and skills following participation of activities. *The values proficiency did not increase at a statistically significant level. We concluded this could be due to their already high level of value for IPE.*

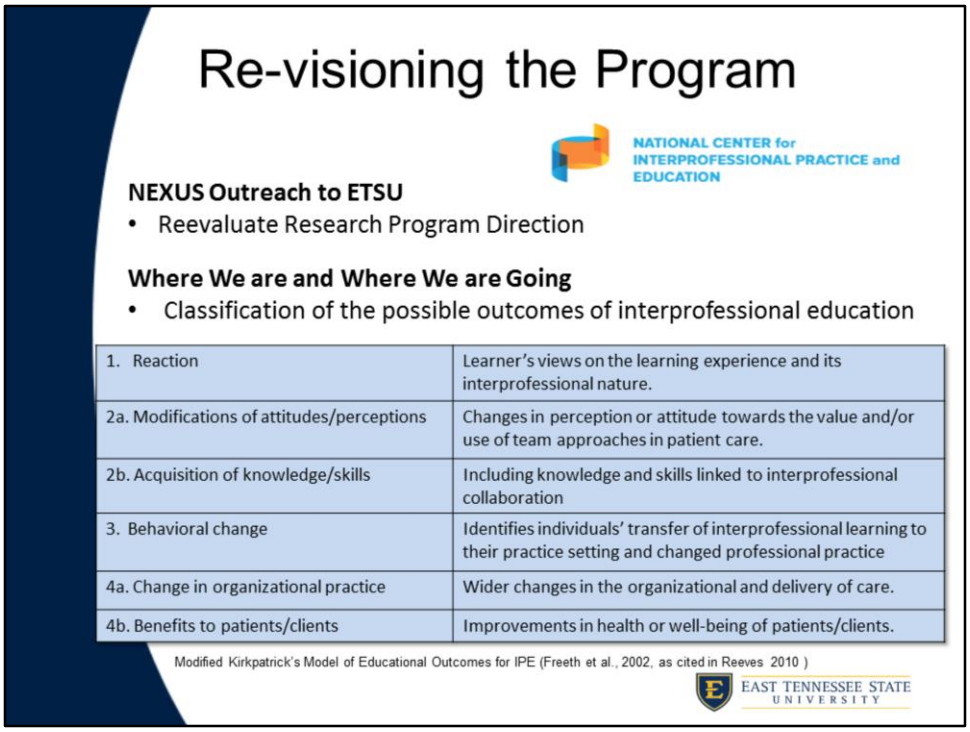


No post survey has been sent as of yet. It can be seen that the role of physician centrality received lower ratings than the other constructs. Furthermore, physician's ratings were lower than those from other professions. It may be that those in other professions experience physicians taking a more central role than they do themselves. Finally the perceived need for cooperation was rated most, suggesting that faculty feel there is a real need for better interprofessional practice.



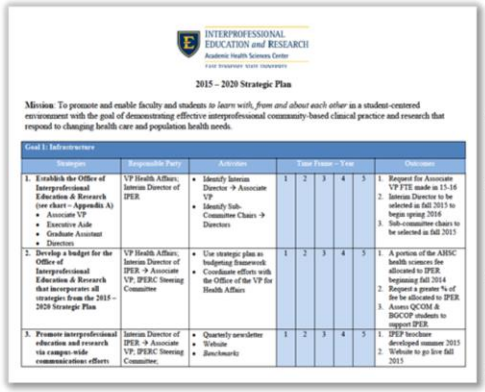
As the program was ending for the second cohort, the steering committee of the program began to ask " what have we learned and "what's next?" We felt the outcomes were generally positive but it did not seem to have the impact we thought it should, especially as a an incubator for transformative change.

We took the student feedback seriously. Then we attended the IPEC institute as a team. This was transformative for us.



We got back and began to plan. At the same time NEXUS reached out to us about participating collaboratively in IPE research. We looked at our research program so far, identified what we had accomplished and what was to come next.

5 year Strategic Plan



INTERPROFESSIONAL EDUCATION *and* RESEARCH
Academic Health Sciences Center

2015 – 2020 Strategic Plan

Mission: To promote and enable faculty and students *to learn with, from and about each other* in a student-centered environment with the goal of demonstrating effective interprofessional community-based clinical practice and research that respond to changing health care and population health needs.

Goal 1: Infrastructure

Strategies	Responsible Party	Activities	Time Frame – Year					Outcomes
1. **Establish the Office of Interprofessional Education & Research (see chart – Appendix A)** • Associate VP • Executive Aide • Graduate Assistant • Directors	VP Health Affairs; Interim Director of IPER	• Identify Interim Director → Associate VP • Identify Sub-Committee Chairs → Directors	1	2	3	4	5	1. Request for Associate VP FTE made in 15-16 2. Interim Director to be selected in fall 2015 to begin spring 2016 3. Sub-committee chairs to be selected in fall 2015
2. **Develop a budget for the Office of Interprofessional Education & Research that incorporates all strategies from the 2015 – 2020 Strategic Plan**	VP Health Affairs; Interim Director of IPER → Associate VP; IPERC Steering Committee	• Use strategic plan as budgeting framework • Coordinate efforts with the Office of the VP for Health Affairs	1	2	3	4	5	1. A portion of the AHSC health sciences fee allocated to IPER beginning fall 2014 2. Request a greater % of fee be allocated to IPER 3. Assess QCOM & BGCOP students to support IPER
3. **Promote interprofessional education and research via campus-wide communications efforts**	Interim Director of IPER → Associate VP; IPERC Steering Committee;	• Quarterly newsletter • Website • *Benchmark*:	1	2	3	4	5	1. IPEP brochure developed summer 2015 2. Website to go live fall 2015

- Infrastructure
  - Organizational Chart
  - Dedicated IP Education & Research Building
- Faculty Development
  - Training, workload, networking
- Curriculum
  - Online units, course development, simulation
- Evaluation and Assessment
  - Nexus, evaluation tool development
- Clinical & Community-Based Practice & Research
  - Incubator sites, community submitted service learning

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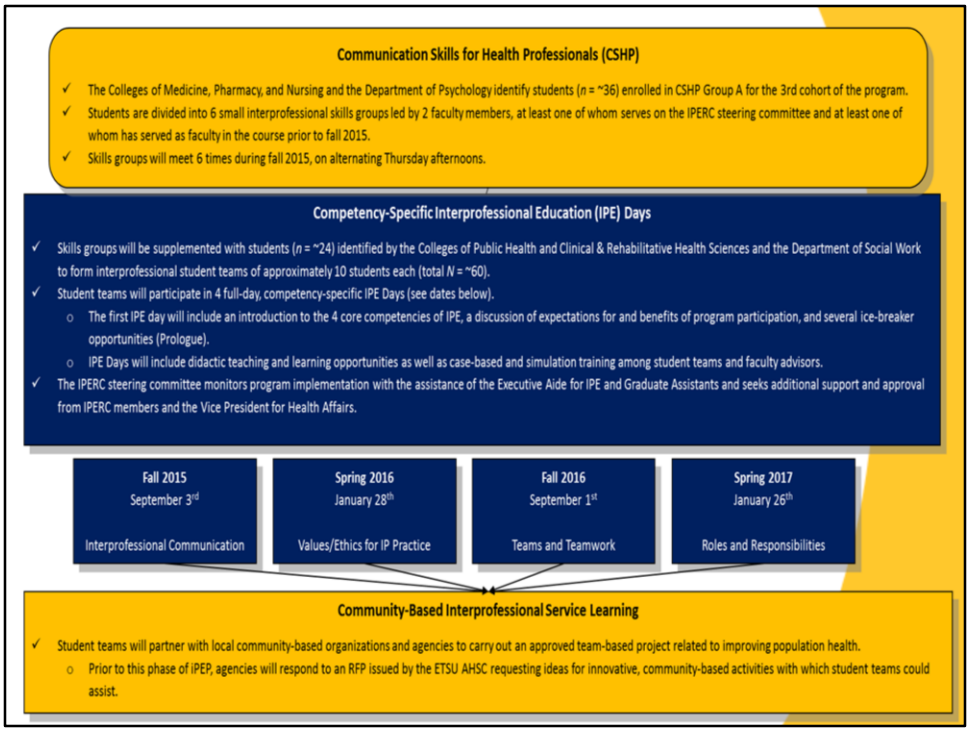

And this is what we have come up with.

We have held our first day-long session. And students have almost completed the Communications course. N=49

We'll have to let you know how it all turns out…hopefully at ASHA

Acknowledgements

Interprofessional Education and Research Steering Committee

Dr. Katie Baker
Dr. Jodi Polaha
Dr. Reid Blackwelder
Dr. Ken Tillman
Dr. Brian Cross
Dr. Kerry Proctor-Williams

Special thanks to:

- Dr. Wilsie Bishop, Vice president of Academic Health Sciences and champion of IPE at ETSU
- Dr. Michael Crouch, our initial chair of the committee
- Ms. Wendy Guinn, our Executive Aide for her ongoing support.

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