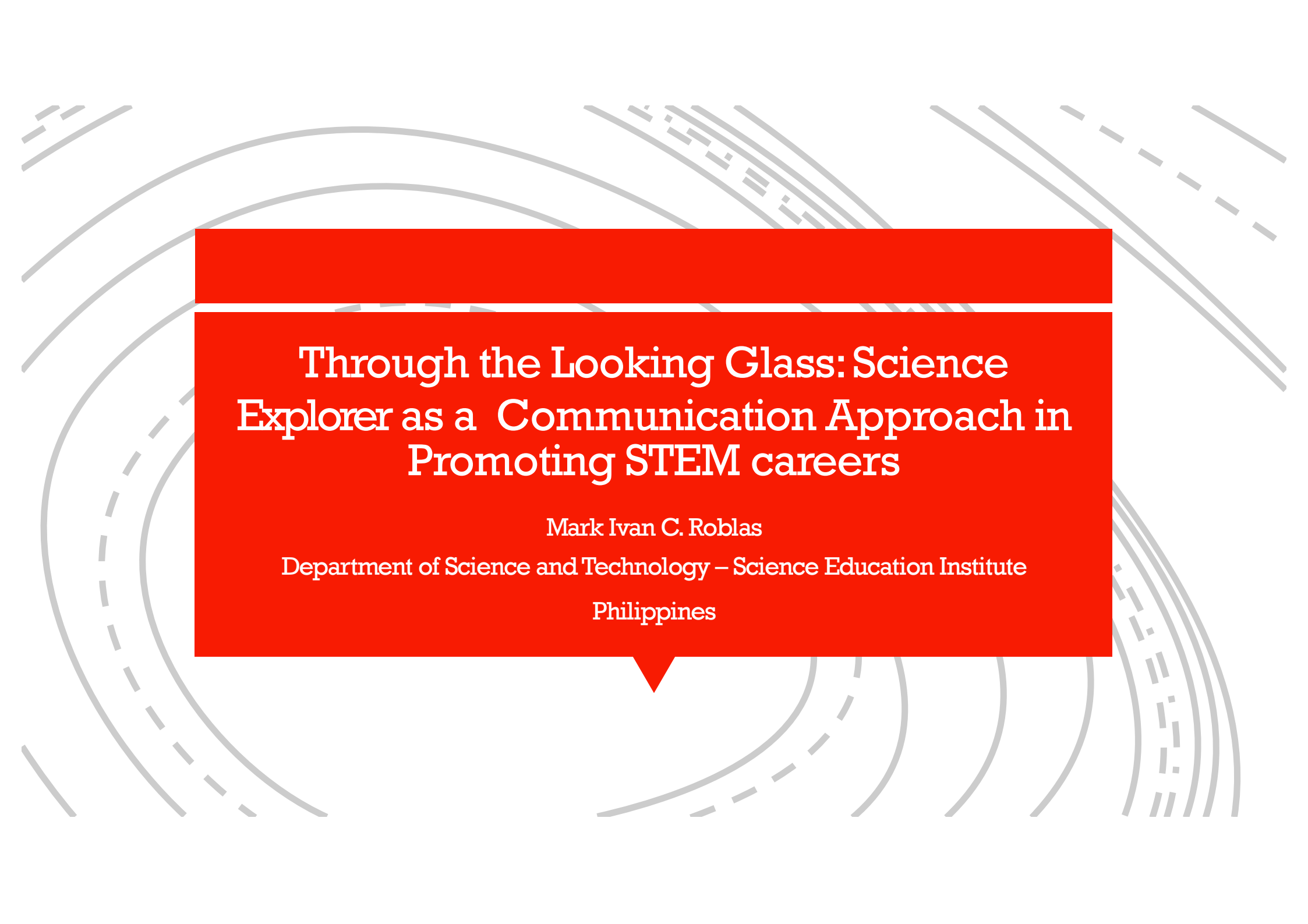




Through the Looking Glass: Science Explorer as a Communication Approach in Promoting STEM careers

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Is this cat going



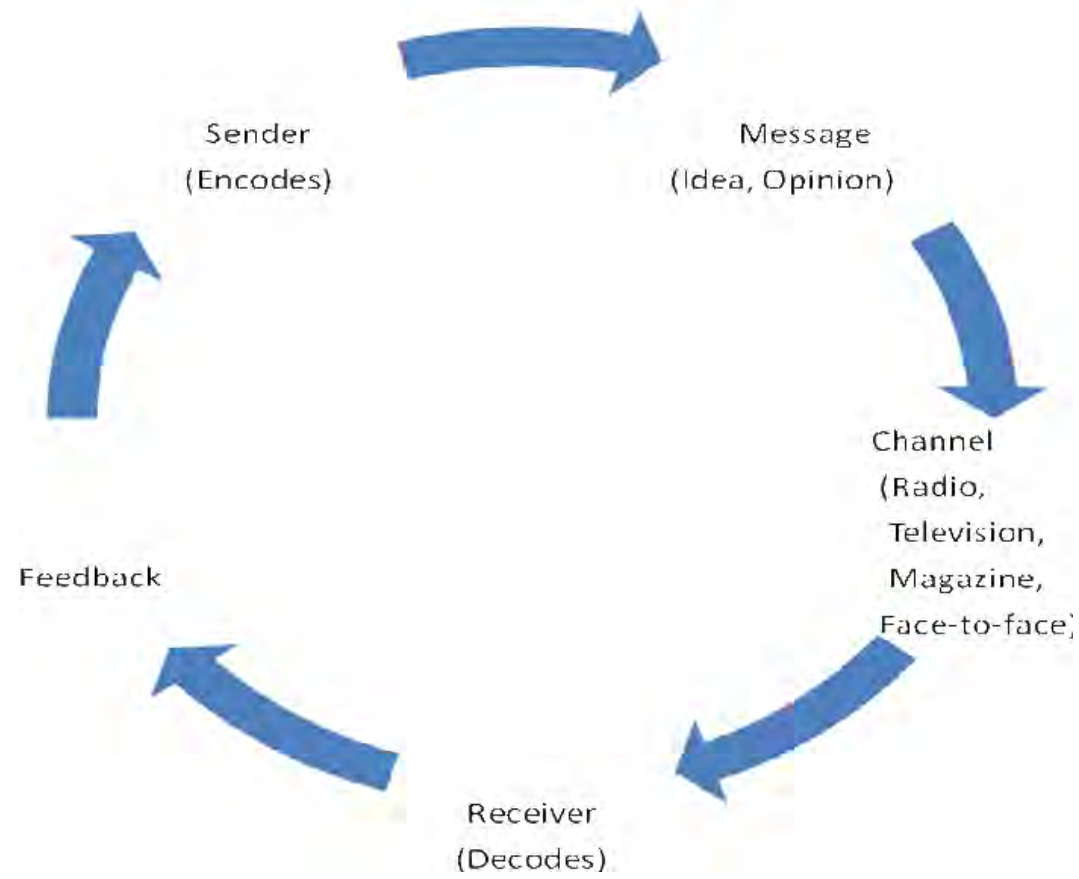
 @CloeCouture

What do you hear!?!

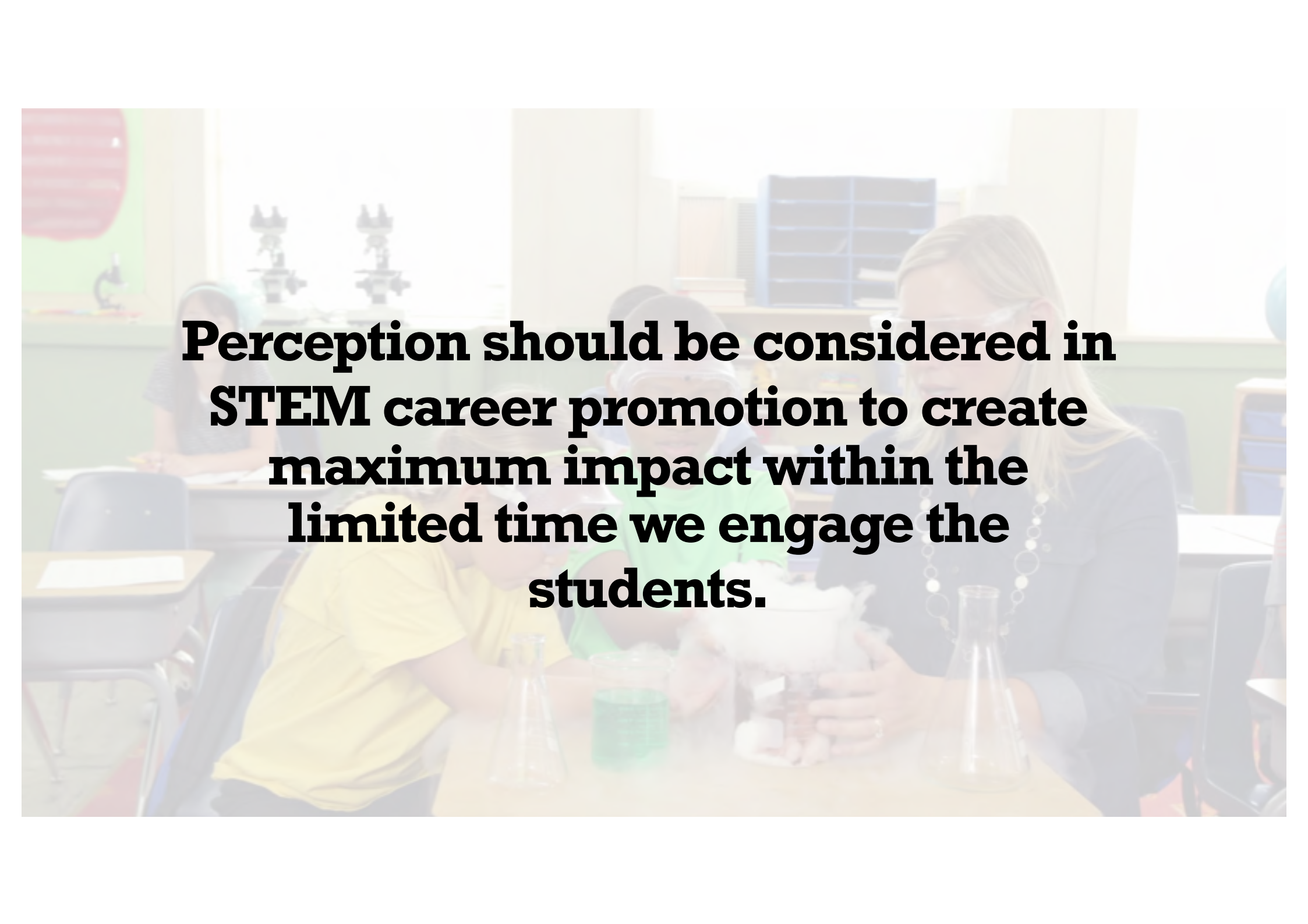
YANNY

LAUREL

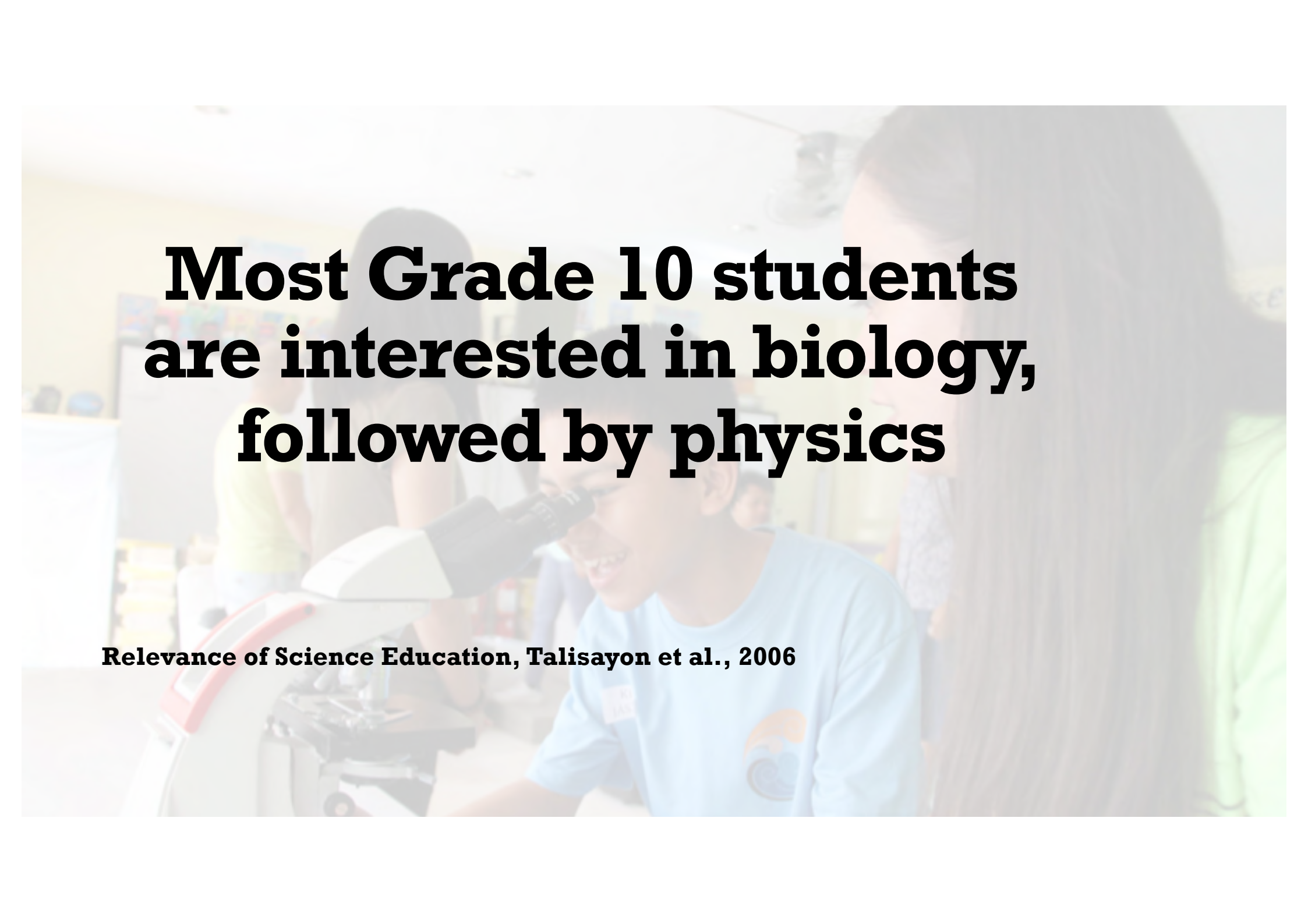
VOTE



Aririguzoh, 2005

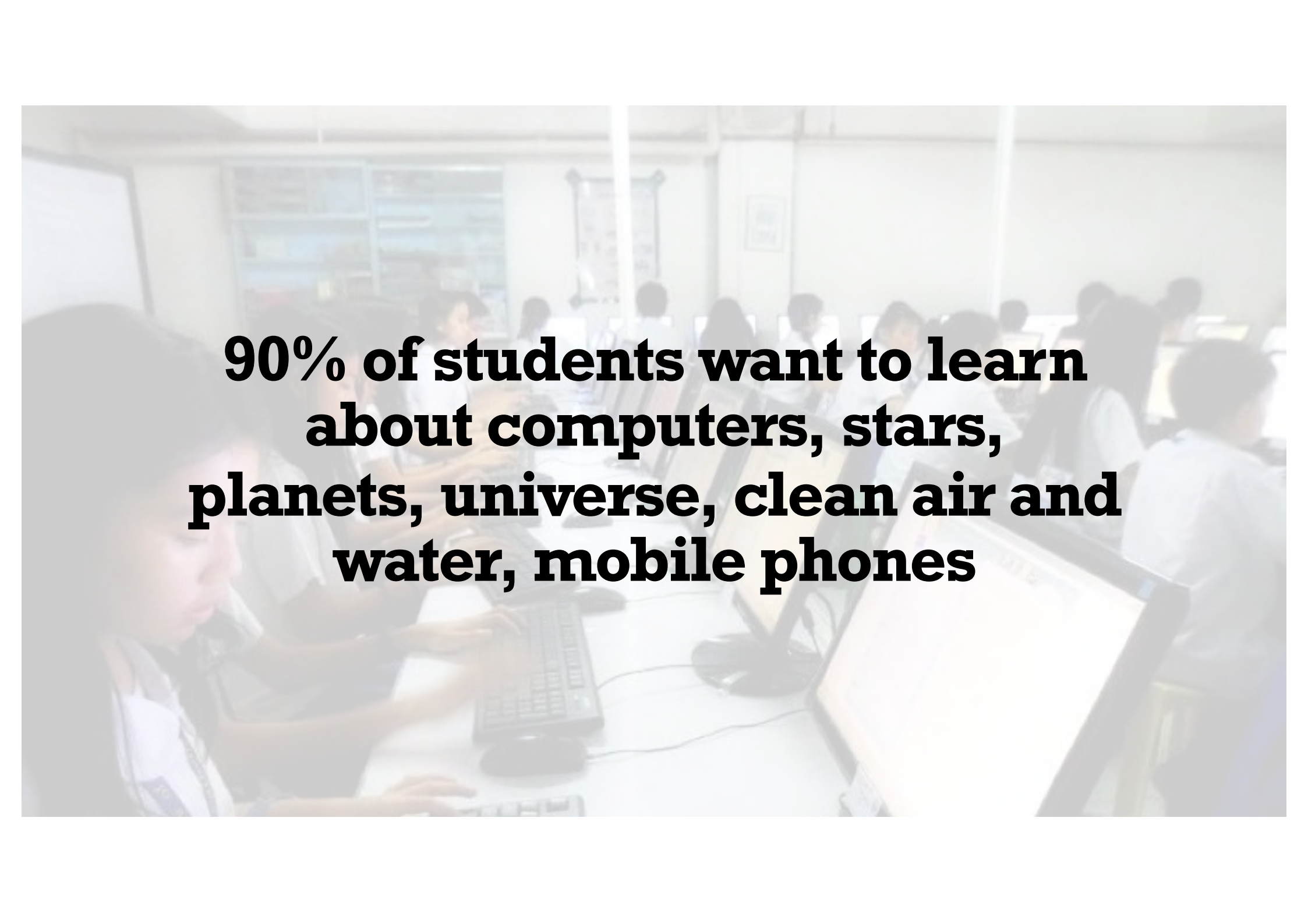
A photograph of a science classroom where a teacher and three students are conducting an experiment. The teacher, a woman with blonde hair wearing safety goggles and a blue lab coat, is holding a beaker with white powder. Two students, a boy in a green shirt and a girl in a yellow shirt, are also wearing safety goggles and looking at the experiment. A third student is visible in the background. On the table are various glassware including Erlenmeyer flasks and beakers, some containing liquids. In the background, there are microscopes on a shelf and a red poster on the wall.

**Perception should be considered in
STEM career promotion to create
maximum impact within the
limited time we engage the
students.**

A background image showing a student in a light blue shirt looking through a microscope in a science classroom. Other students and classroom equipment are visible in the background.

**Most Grade 10 students
are interested in biology,
followed by physics**

Relevance of Science Education, Talisayon et al., 2006

A background image showing a classroom or computer lab with several students sitting at desks, working on computers. The image is faded to make the text stand out.

**90% of students want to learn
about computers, stars,
planets, universe, clean air and
water, mobile phones**

A background image showing a group of students, mostly young women, gathered around a large telescope. They are looking through the eyepiece with interest and excitement. The image is slightly faded to make the text stand out.

TOP RESEARCH TOPICS OF STUDENTS

Stars

Planets

Black holes

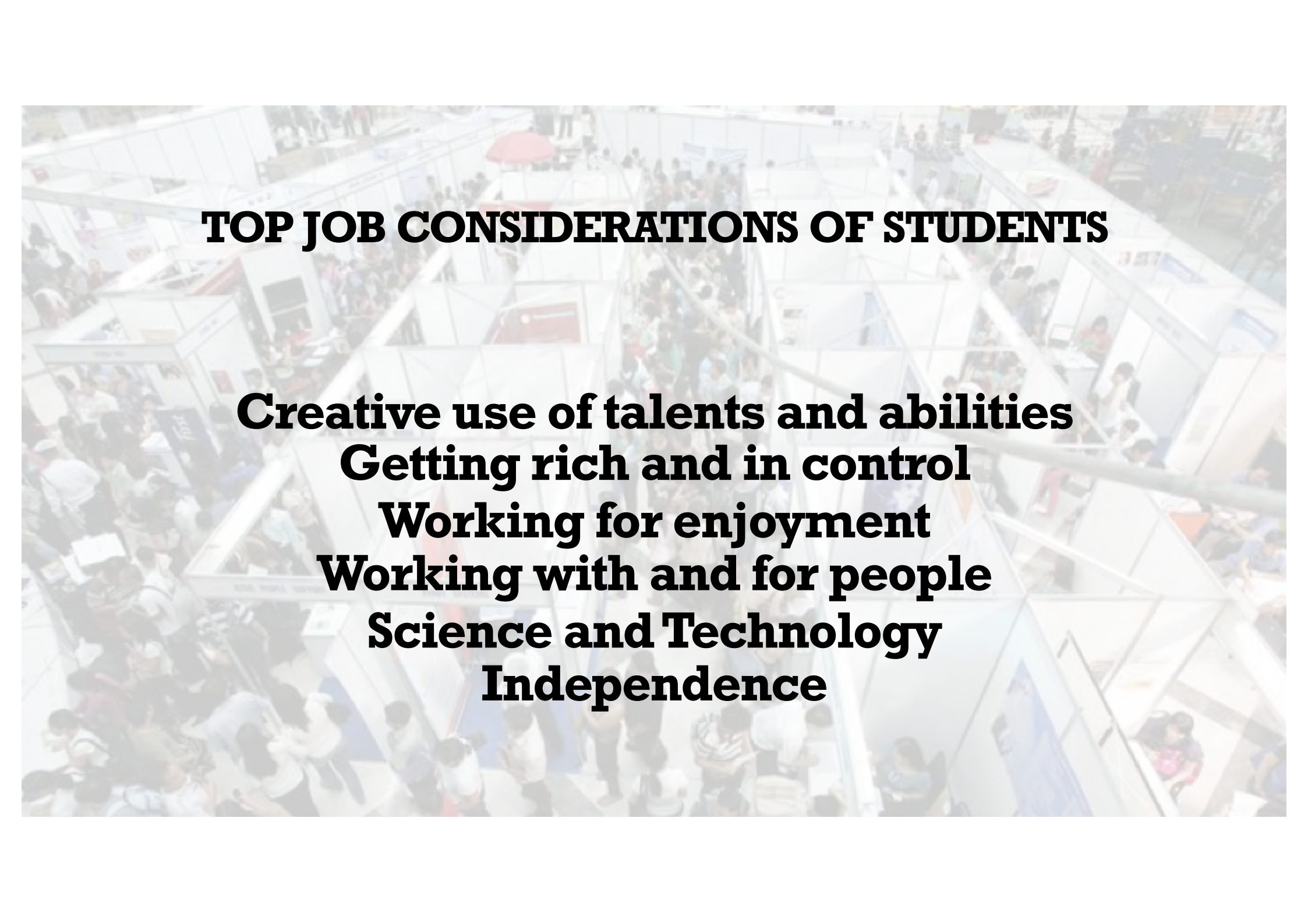
Space Travel

Diseases and Medicine Cure

Environmental Research

Inventions

Computers or New Technology



TOP JOB CONSIDERATIONS OF STUDENTS

Creative use of talents and abilities

Getting rich and in control

Working for enjoyment

Working with and for people

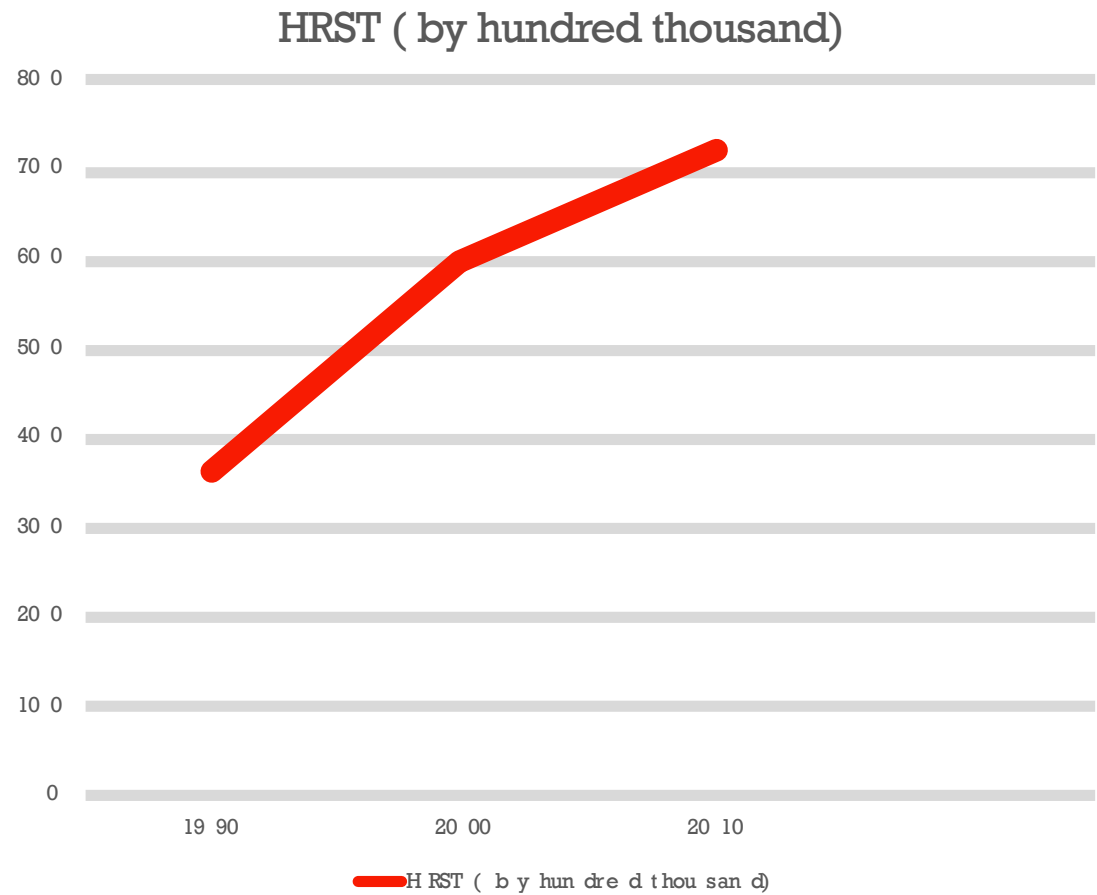
Science and Technology

Independence

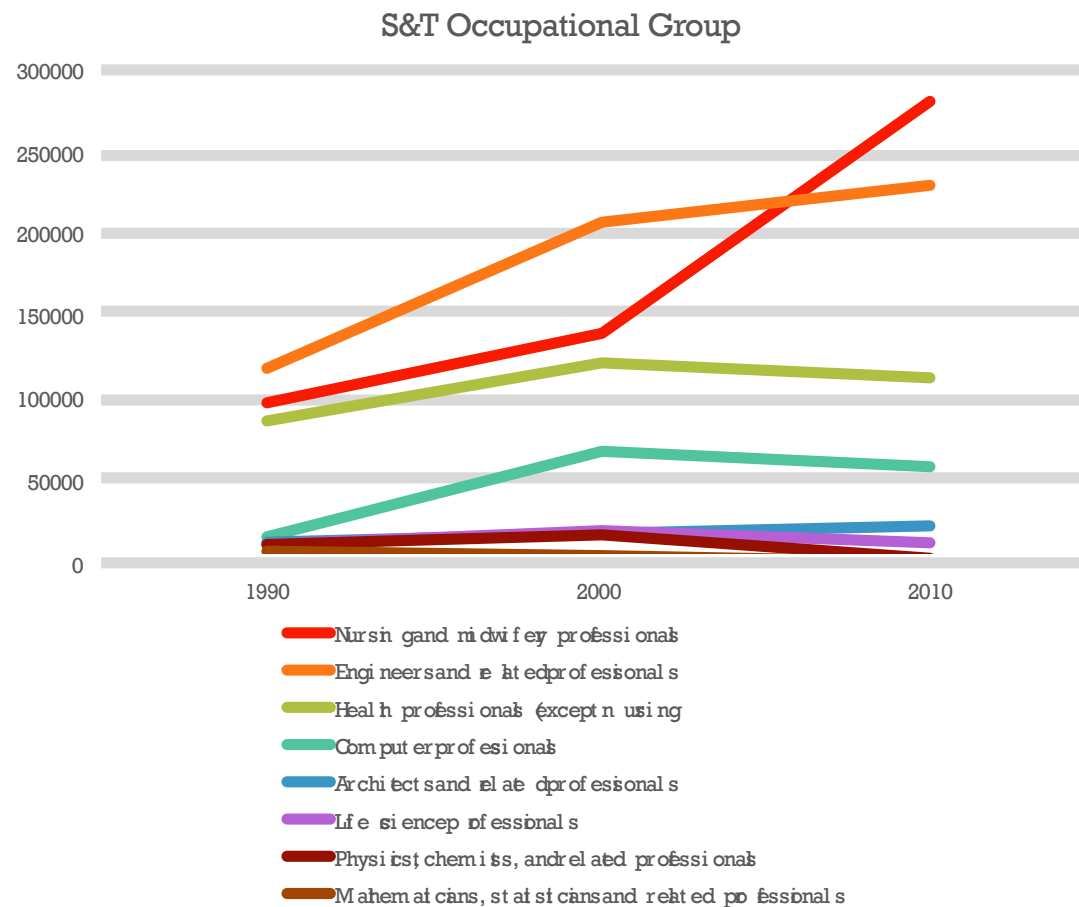
The background of the image features a dense pattern of interlocking gears of various sizes. The gears are rendered in a light, muted blue-grey color against a textured, light beige or tan background that resembles a piece of paper or cardboard. The lighting is soft, creating subtle shadows and highlights on the gear teeth and the textured surface.

Interest => Action

**Increasing
human resource
in science and
technology from
1990 – 2010**

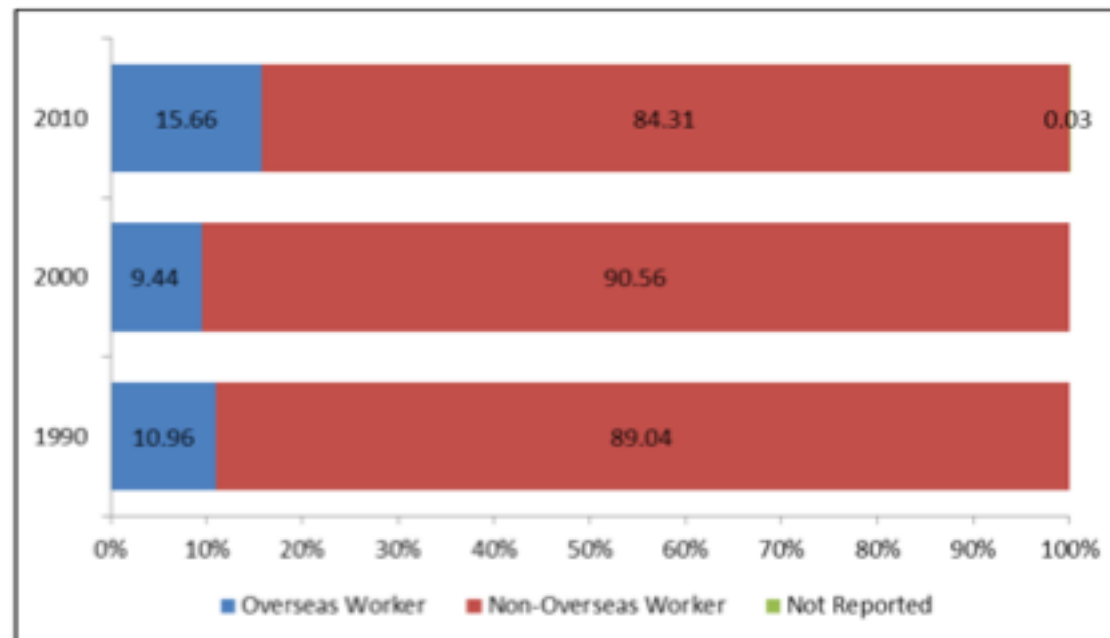


S&T Workers Disaggregation by Occupation

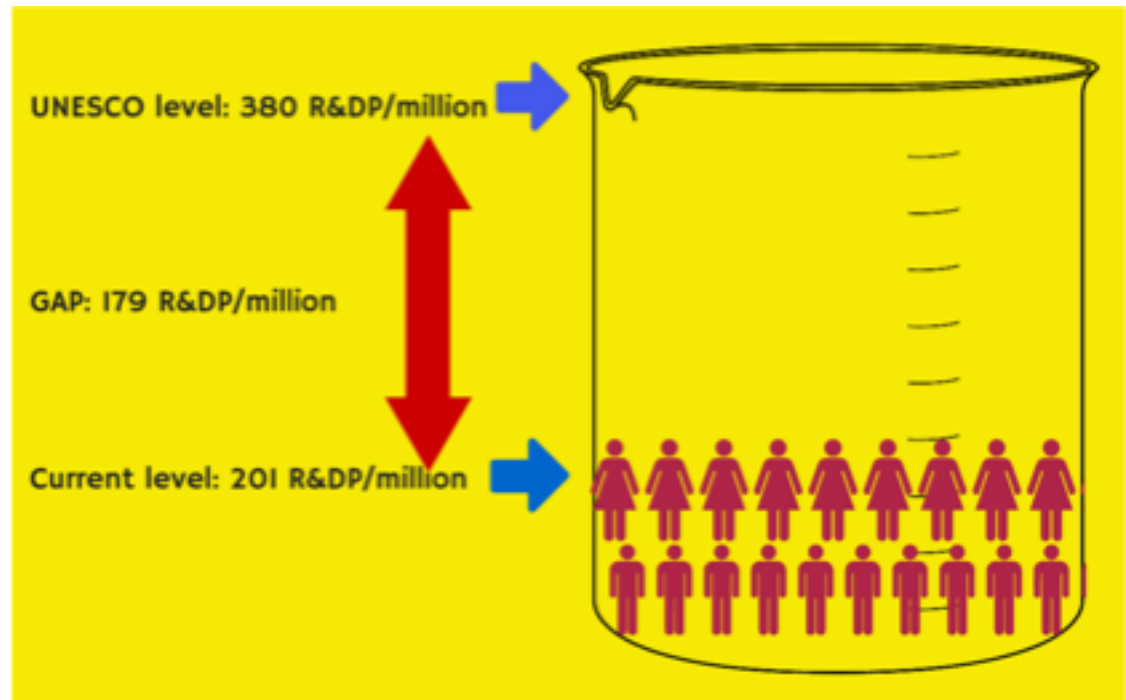


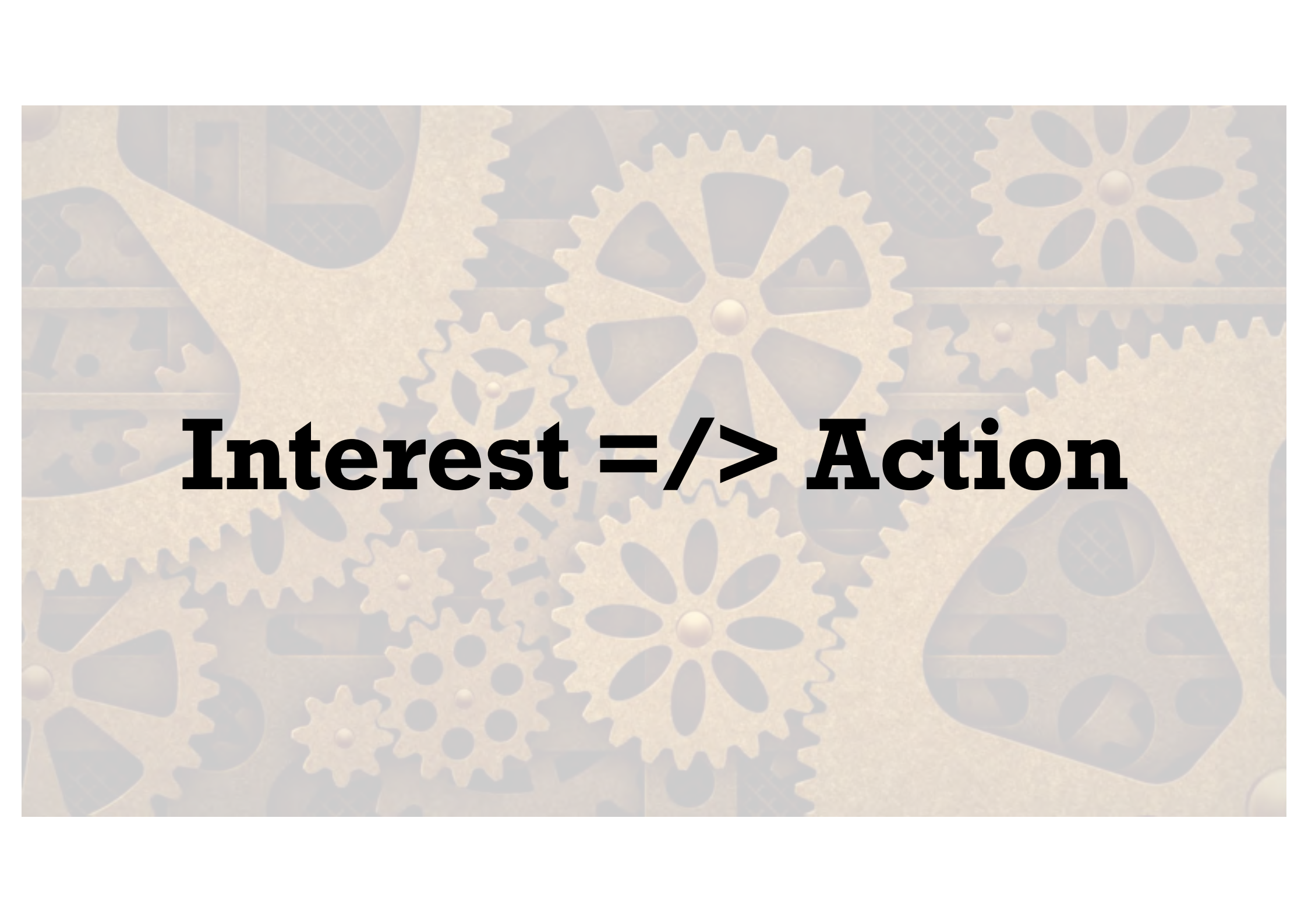
**More than 50 % of S&T Professionals
are in the National Capital Region
and nearby regions (Region III and
IVA)**

**S&T Professionals working overseas
increased from 1990 to 2010**



**There is a gap
of 179 S&T
professionals
per million
population**



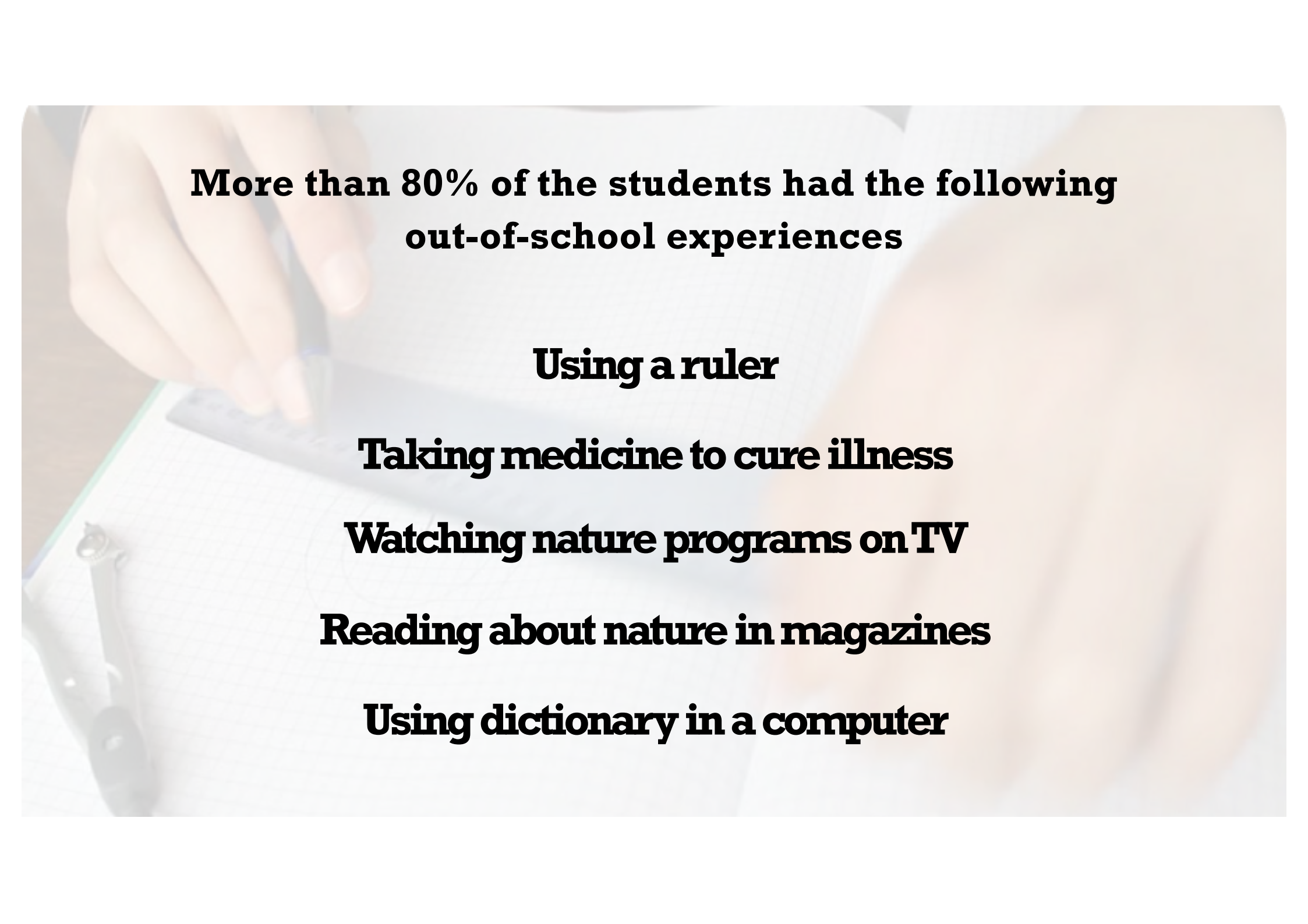


Interest $\Rightarrow$ Action



**1 of 10 schools in the Philippines
has a science laboratory**

**1, 762 students use a science
laboratory**

A background image showing a person's hands using a ruler on a piece of graph paper. The image is slightly blurred and has a light, warm tone. The text is overlaid on this background.

**More than 80% of the students had the following
out-of-school experiences**

Using a ruler

Taking medicine to cure illness

Watching nature programs on TV

Reading about nature in magazines

Using dictionary in a computer

Science Explorer



Interactive Science Activities

Interaction with Real Life Scientists



25, 000 students
in
12 regions



Research Problem

How effective are the Science Explorer modules as a communication approach in enticing high school students to get into STEM careers

- * Source

- * Message

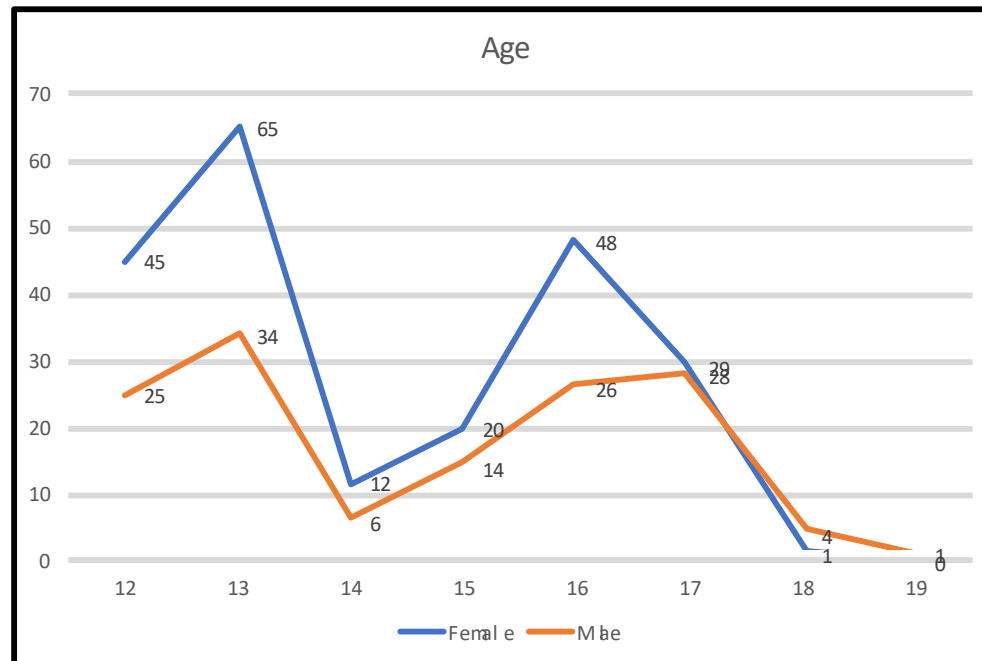
Methodology

Cross sectional survey was administered to 360 high school students from Sorsogon National High School in Eastern Philippines who participated in four modules in the Science Explorer.

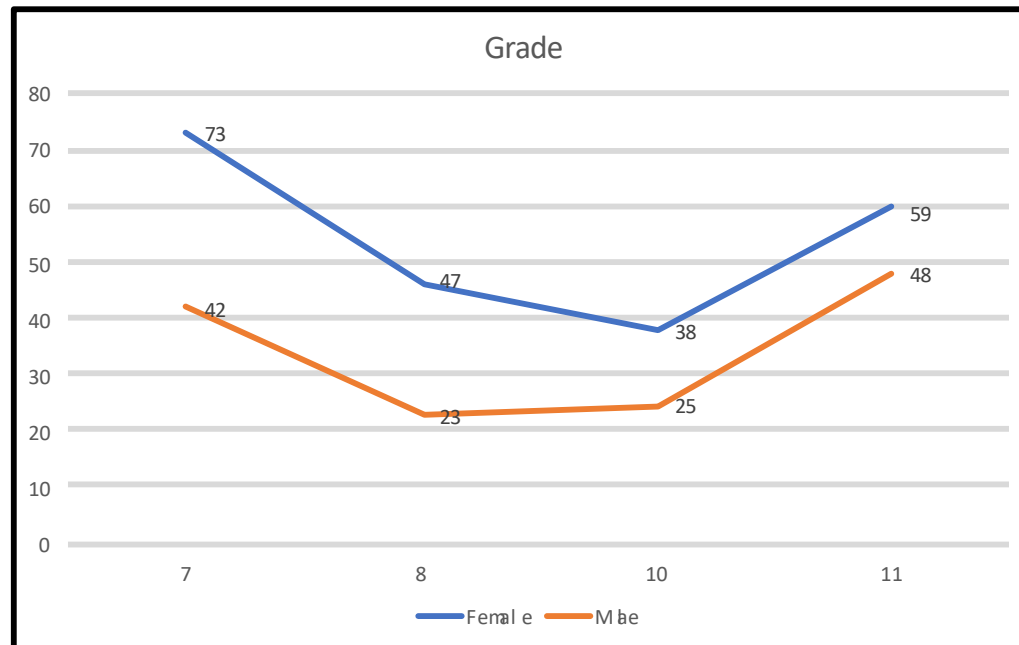
Data gathered from the participants are their perceptions on the message on science careers they obtained from their experience of the Science Explorer modules.

The study took a look on how the Science Explorer modules as a communication approach affected their course choices, behavior, and reasons behind their choices.

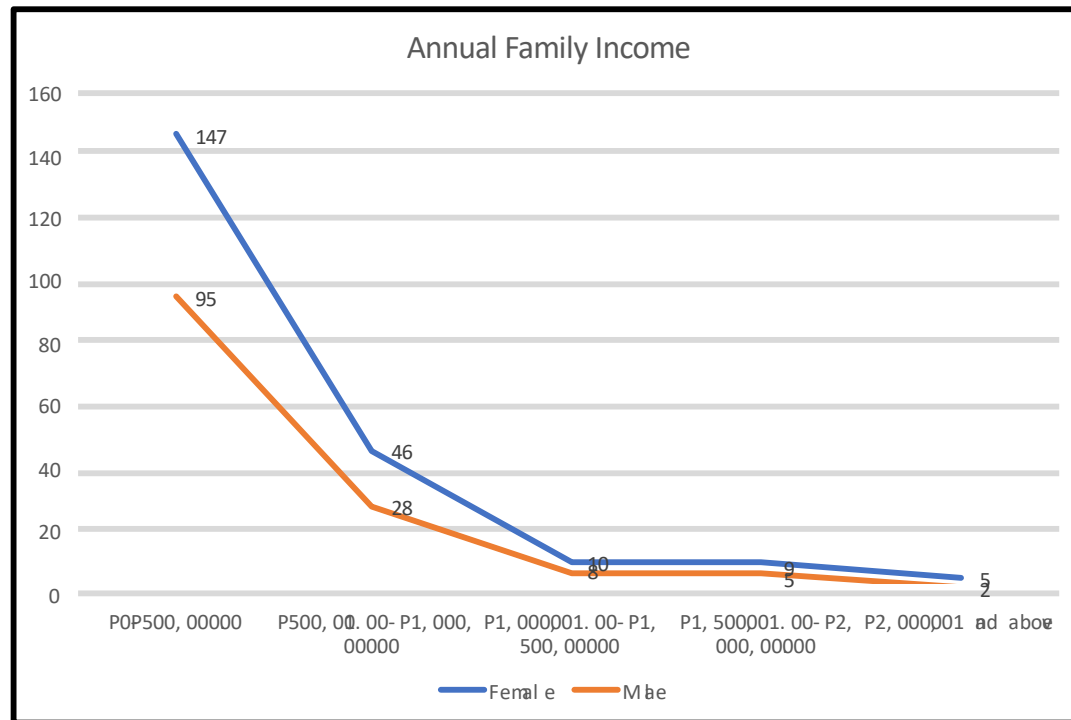
Demographics



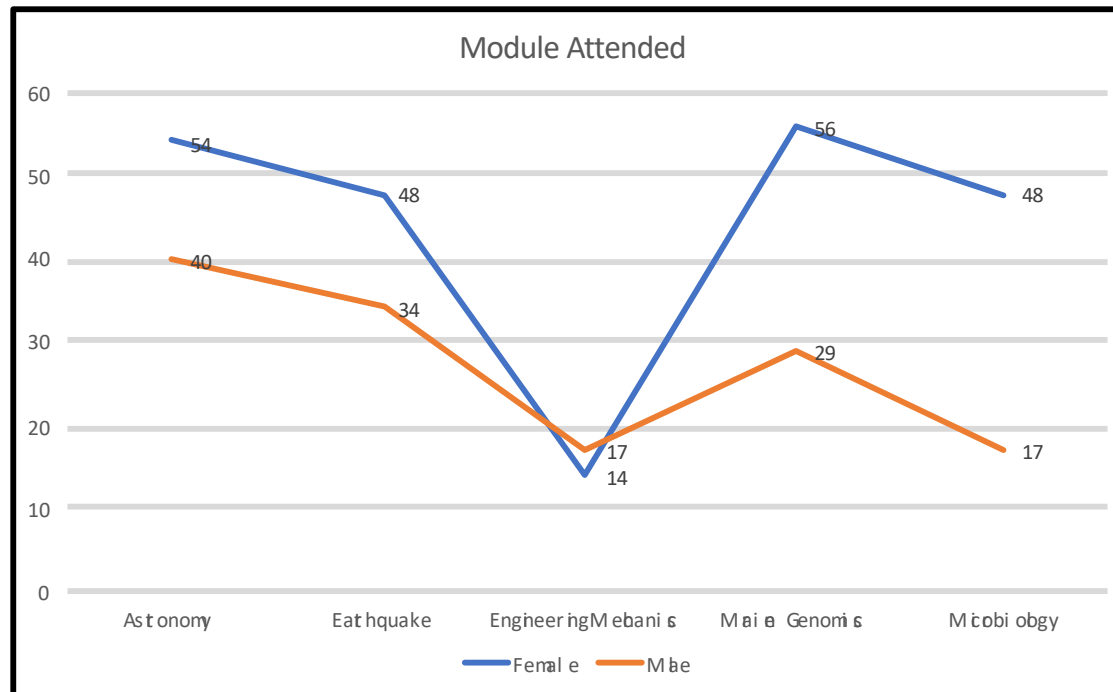
Demographics



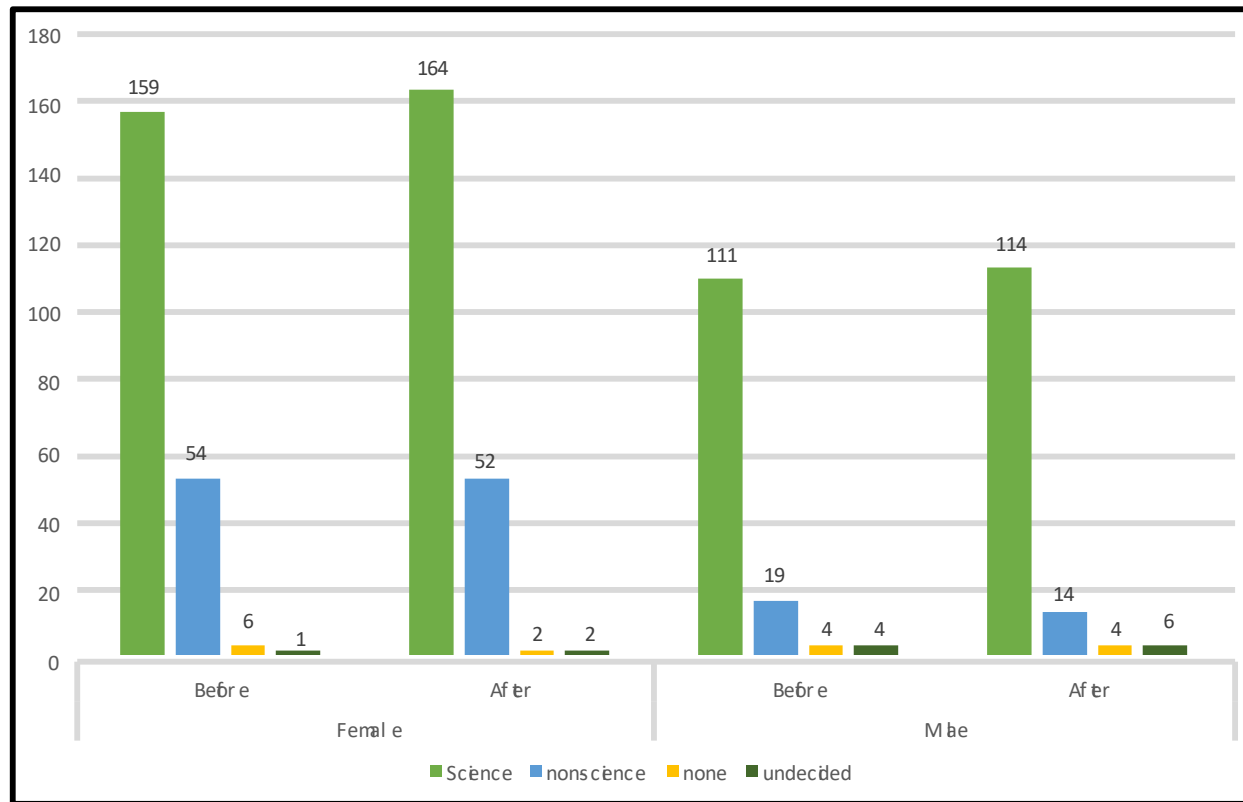
Demographics



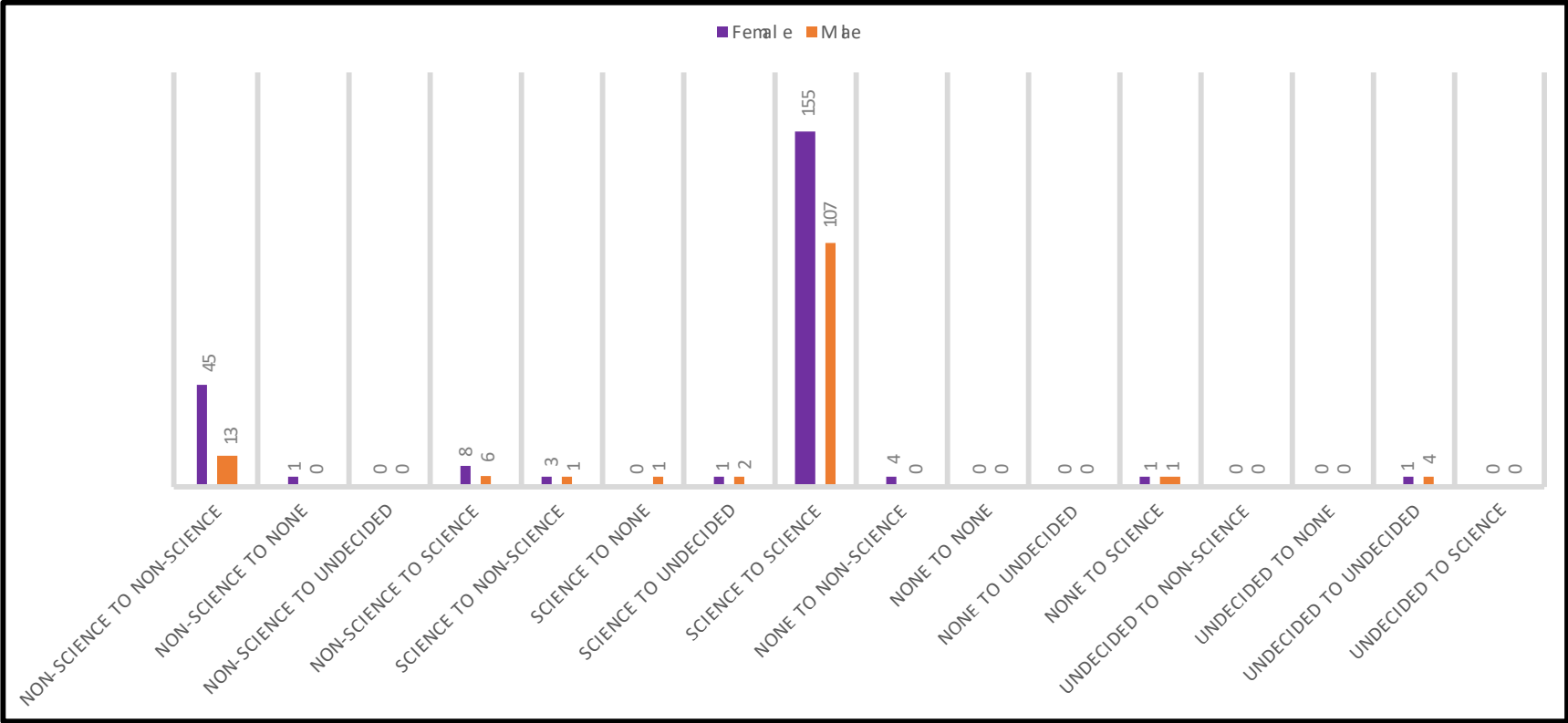
Demographics



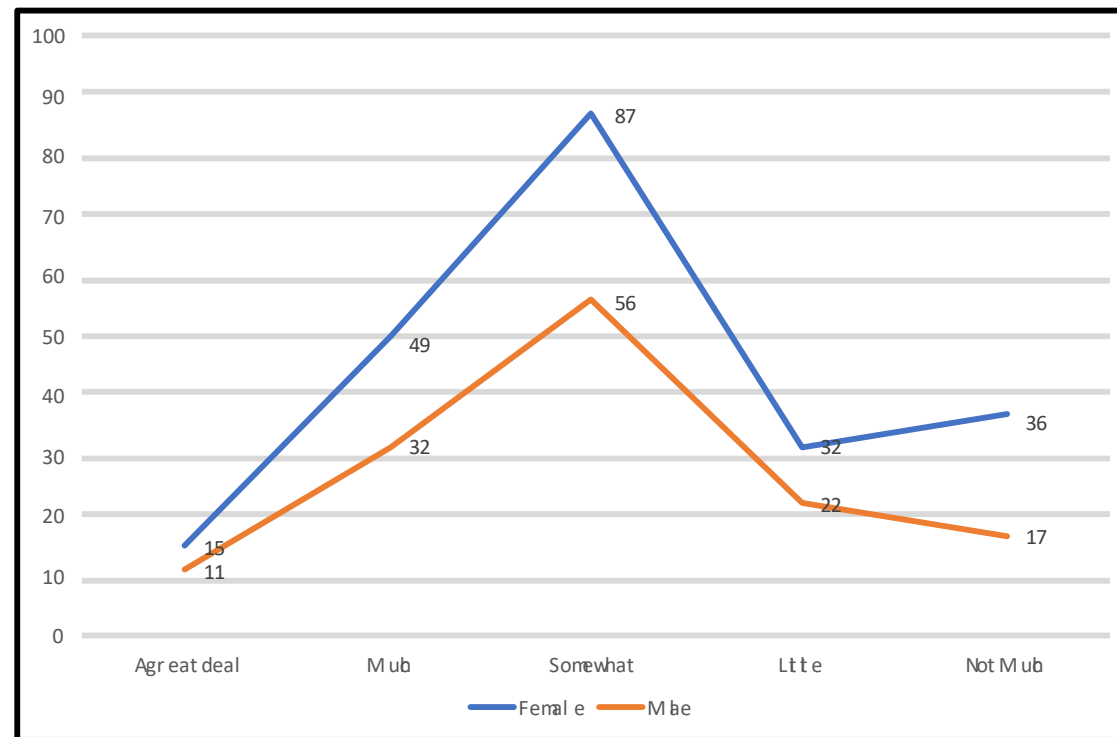
Course Choices Before and After the Science Explorer



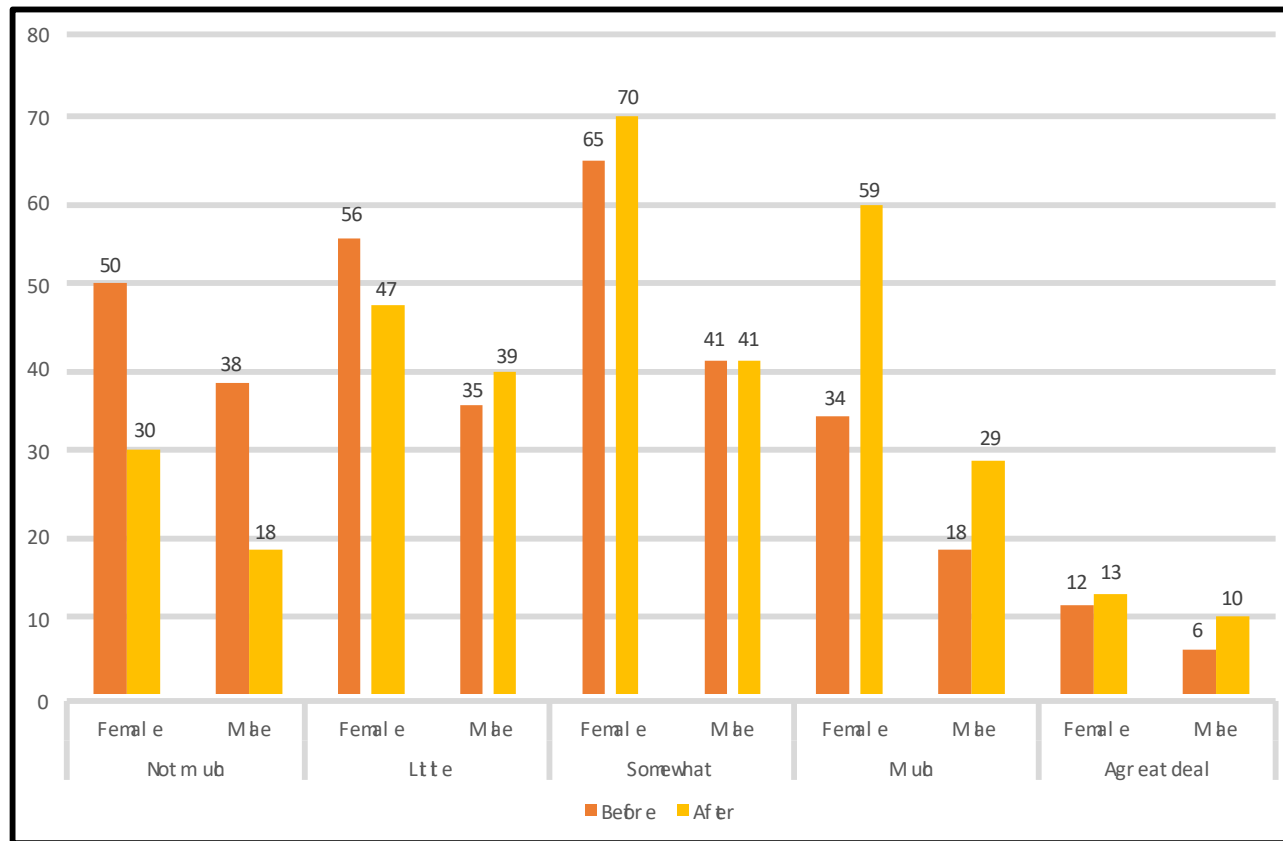
Course Intention Change Before and After the Science Explorer



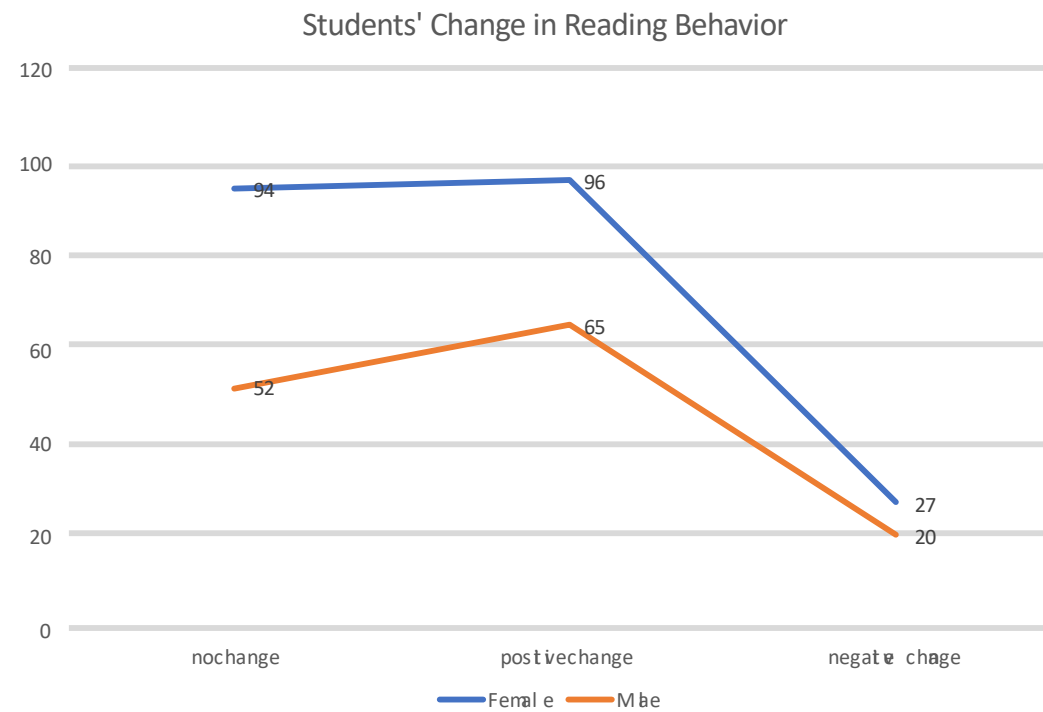
Did the Science Explorer module encourage you to get into careers in science in the future?



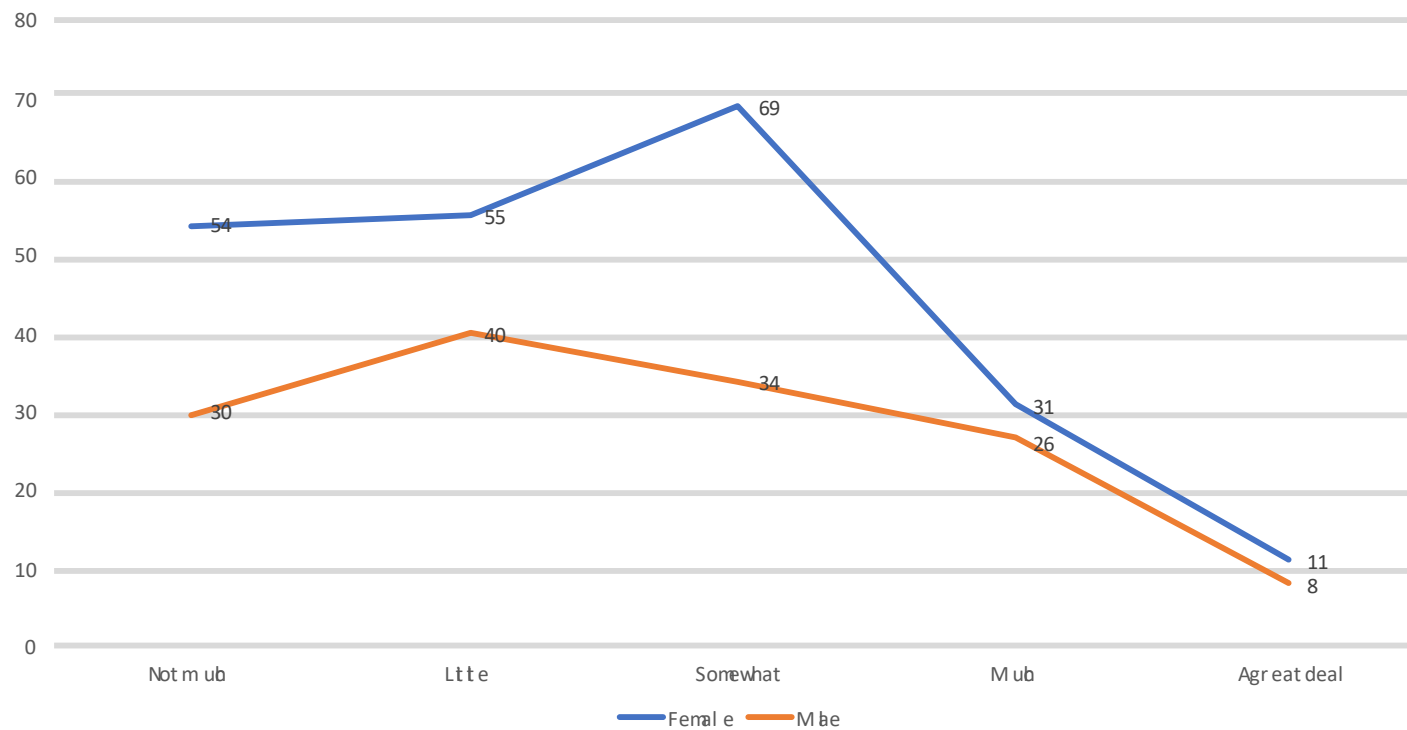
Student Reading Before and After the Science Explorer



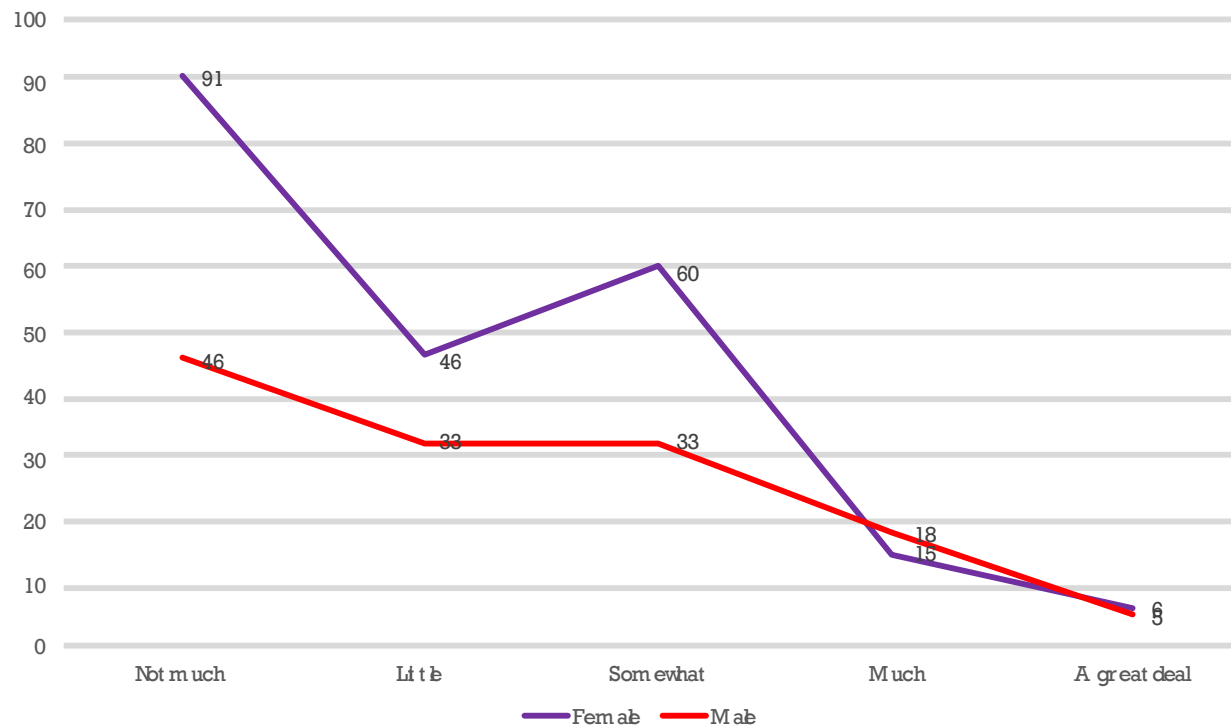
Students' Change in Reading Behavior



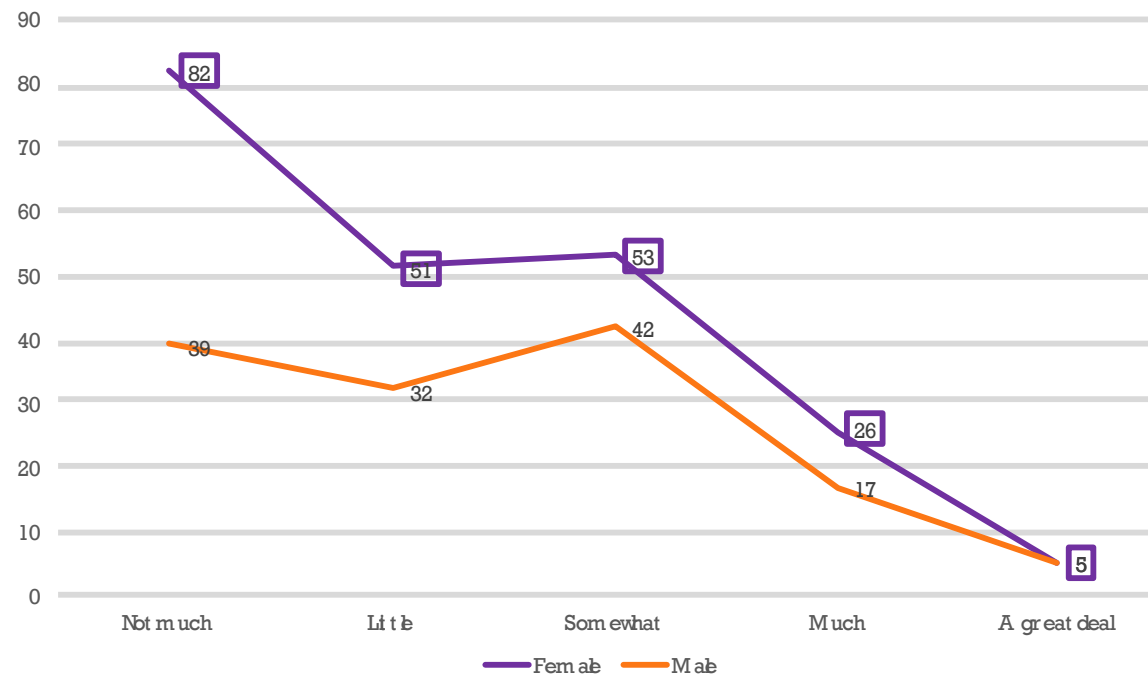
How much did the message you got from the Science Explorer module affect your choice of career?



Would the Science Explorer module you attended affect your reason in the career you would want to pursue in the future?



Would the message you obtained from the Science Explorer affect your reason in the career you would want to pursue in the future?



Conclusions

The Science Explorer succeeds in retaining students who are into science careers and sustaining their interest in science.

The Science Explorer is able to entice students to get into STEM careers with more females encouraged by its modules.

The Science Explorer accomplishes its goal in changing the behavior of students relative to reading habits with more male students looking up STEM careers.

More female students were affected by the Science Explorer module as a message to take on science careers, thus, accomplishing its goal of piquing the interest of the students.

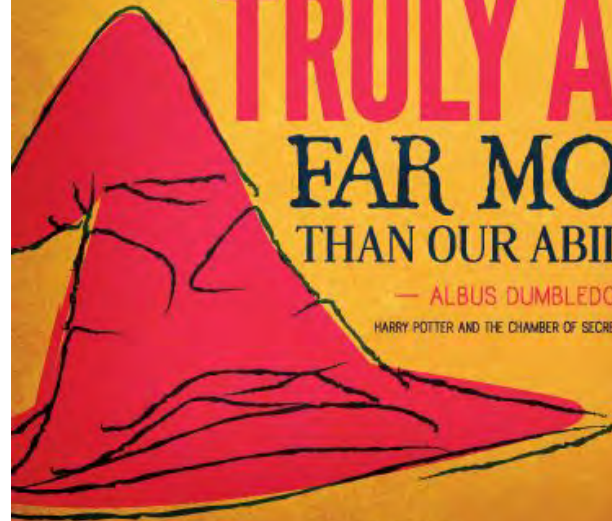
Both sexes showed that the Science Explorer module and message may not affect their decision on their chosen career, thus, further investigation can be conducted to examine what affects their career choices.

IT IS **OUR**
CHOICES,

HARRY, THAT **WHO WE**
SHOW US **TRULY ARE,**
FAR MORE
THAN OUR ABILITIES.

— ALBUS DUMBLEDORE

HARRY POTTER AND THE CHAMBER OF SECRETS BY J.K. ROWLING



thereadables.tumblr.com