



Active Recruiting

Leslie G. Cintron, PhD
Research Scientist
University of Virginia

Active Recruiting - Outline

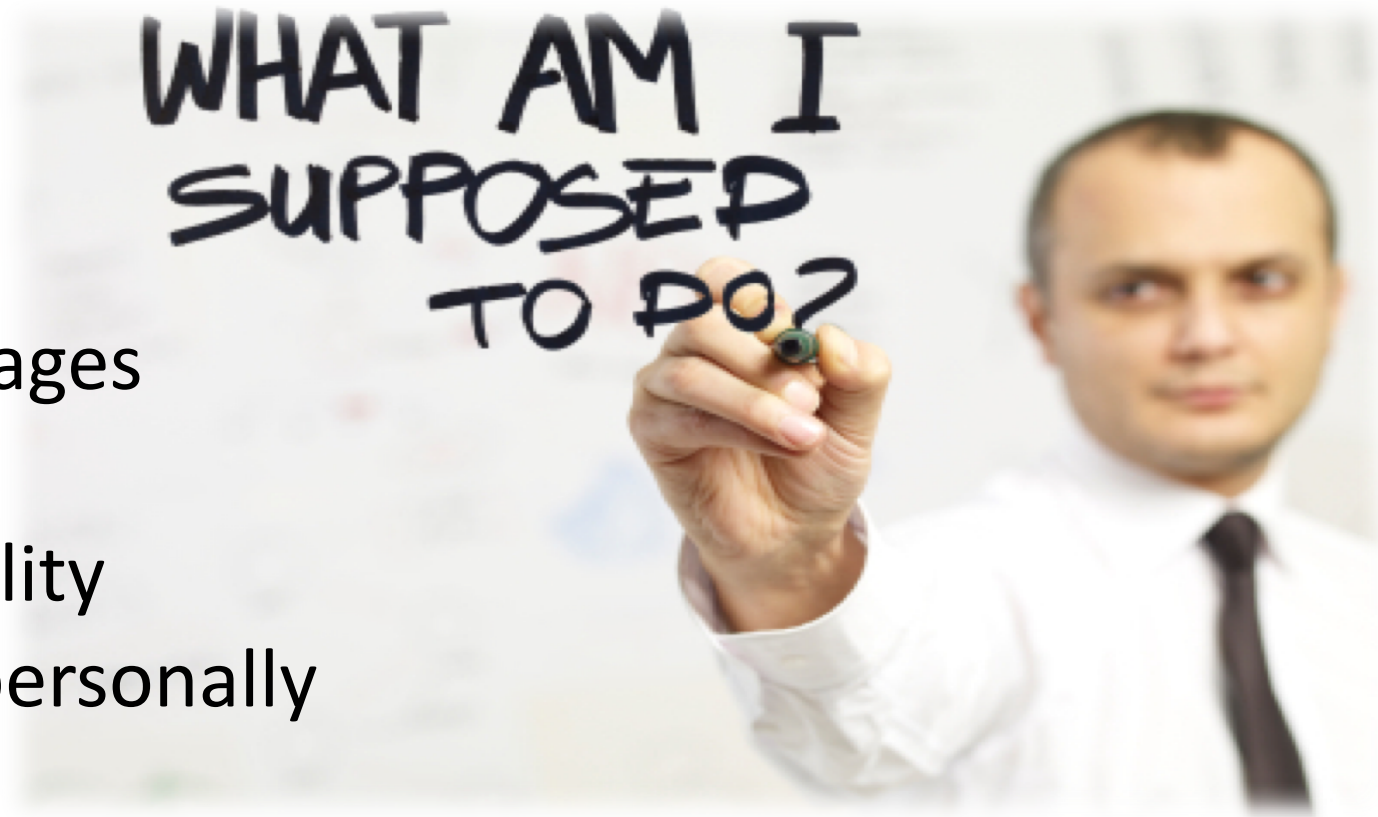
- Craft messages → ICBI
 - Interest
 - Confidence
 - Belonging
 - Identity
- Reach Out
- Raise Visibility
- Persuade personally

Fight the status quo



Active Recruiting

- Craft messages
- Reach out
- Raise visibility
- Persuade personally



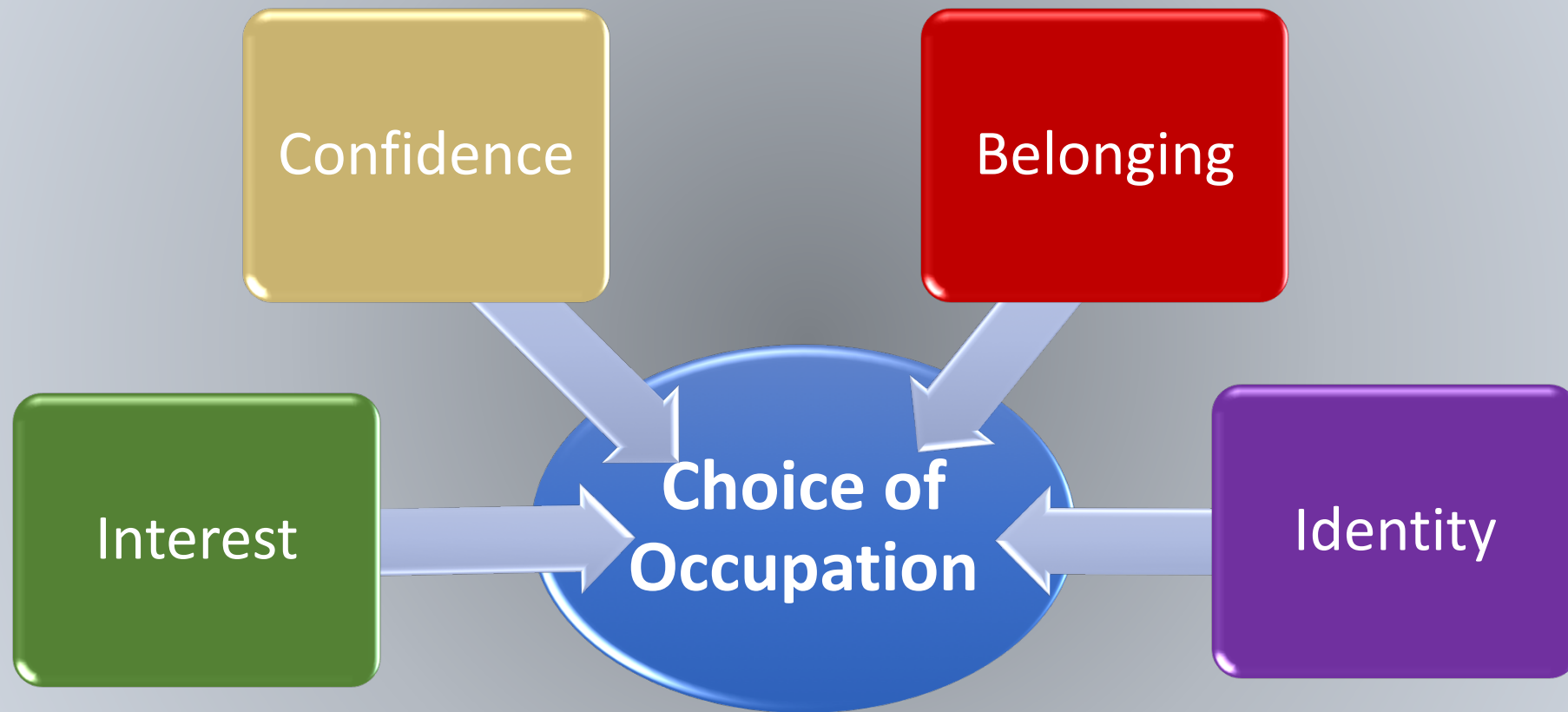
Why Active Recruiting?

It Works!

Data from CS Teachers Who Have Used Active Recruiting

	# Change	% Change
CS AP	401	48%
CS AP Girls	107	73%
CS AP URM	71	53%
CS non AP	684	18%
CS non AP Girls	372	40%
CS non AP URM	208	22%

How to Craft Messages: ICBI



Ignite your students' interest



Describe careers that spark diverse student interest

- Flexibility: industry, geography
- Time with family
- Job projections
- High salaries
- Work with others
- Socially relevant
- Satisfied professionals



Appeal to Students' Current Interests & Goals

Majors Most Commonly Intended by Women in the U.S., 2013

Health Professions	193,089
Business Management/Marketing	67,916
Visual & Performing Arts	59,358
Biological & Biomedical Sciences	58,974
Psychology	51,446
Education	50,474
Undecided	49,244
Computer & Information Sciences	4,700

Making Messages Meaningful: Students' Interests



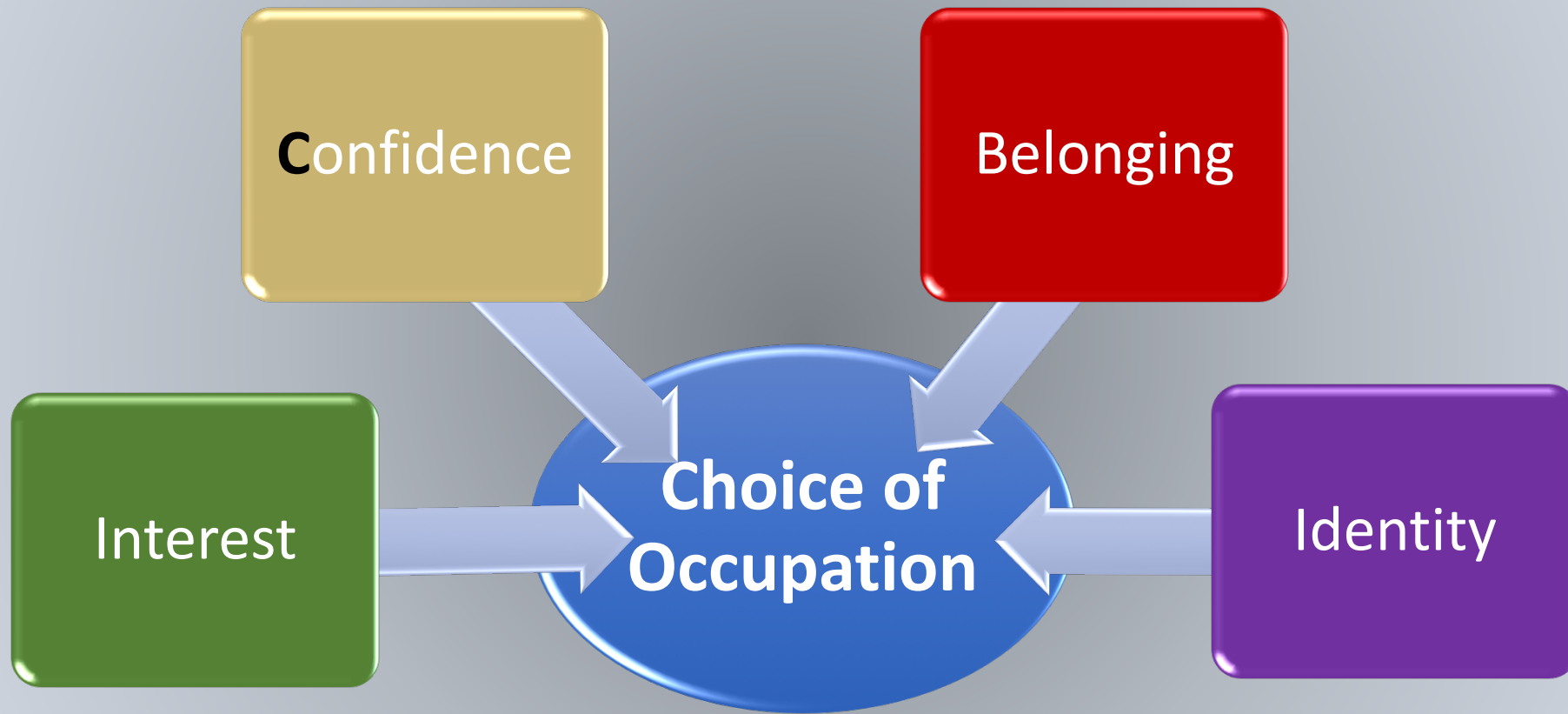
- Scanning DNA for childhood diseases
- Designing and displaying new fashions
- Restoring and preserving art work
- Designing secure databases to record human rights abuses while shielding the identities of victims or witnesses

Source: dotdiva.org

Fun Can Be Enough!

- Not all students are thinking of the future, jobs
- Make it clear your course will be interesting and fun

How to Craft Messages: ICBI



Cultivate Confidence



Cultivate Confidence

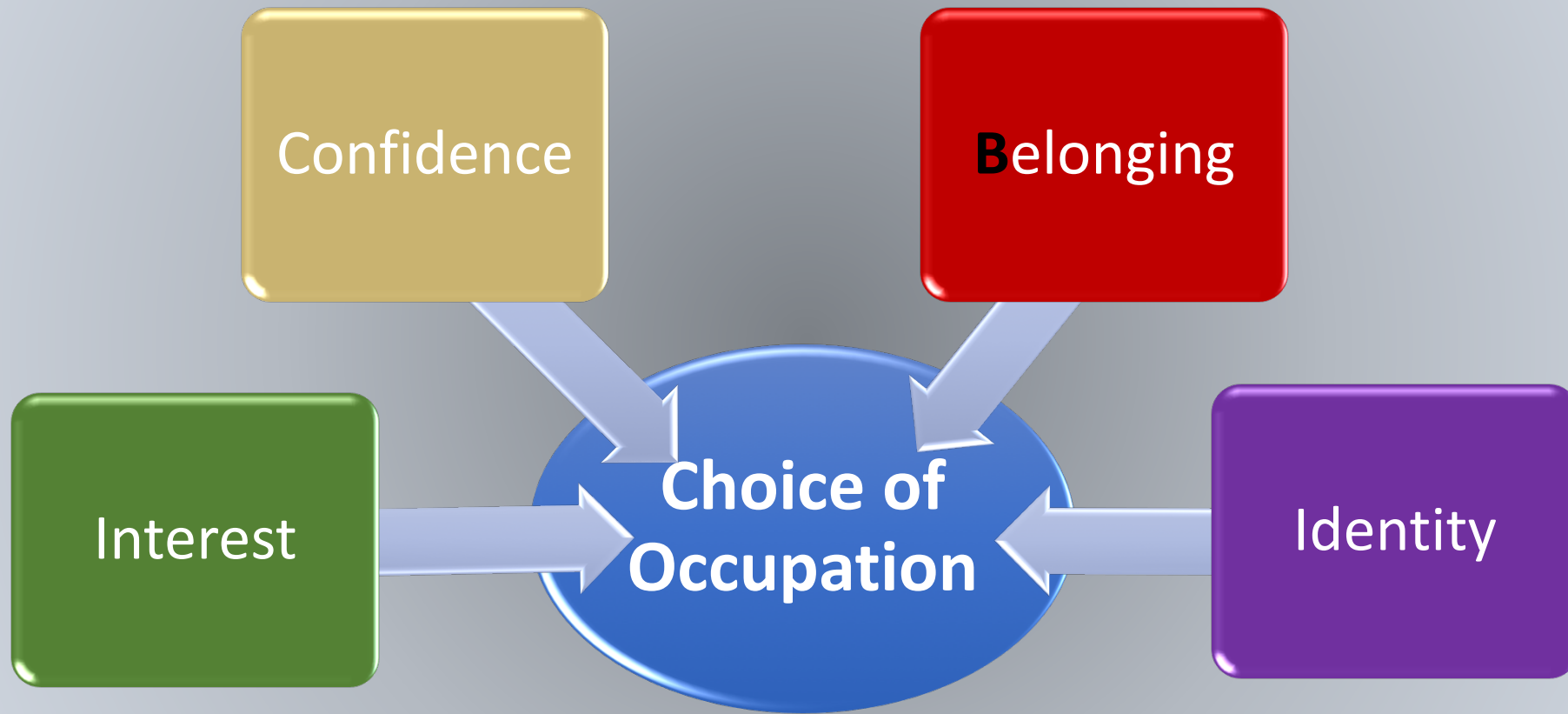
- Showcase successes of current & former students
- “You’d be great at this”
- “I want you in my class”
- Provide opportunities for experiencing success
- Describe how the course promotes success

Emphasize Growth in Intelligence



See Carol Dweck's work

How to Craft Messages: ICBI



Build belonging, inclusivity

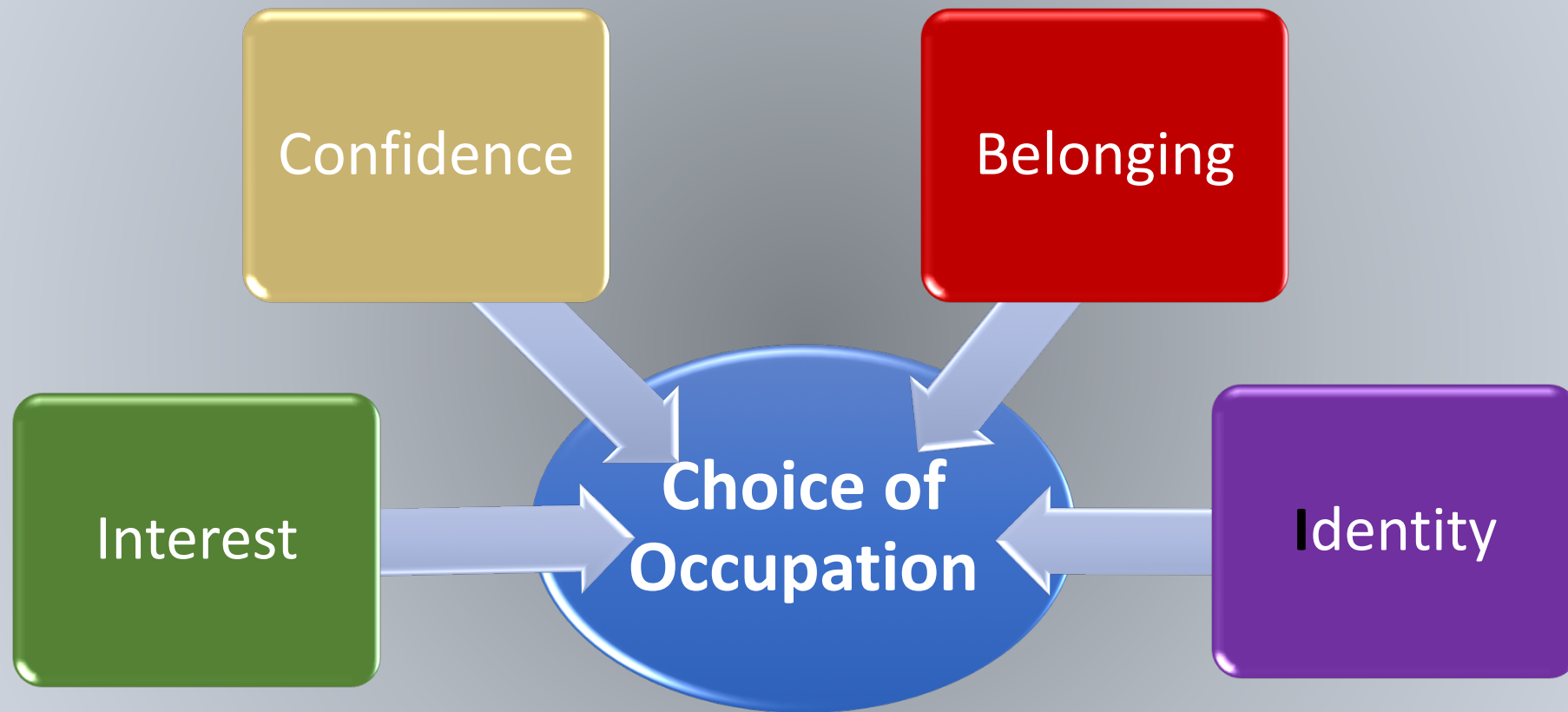


Build belonging, inclusivity

- ✓ Recruit in groups
- ✓ Have friends recruit friends
- ✓ Use inclusive language
- ✓ Set-up a welcoming physical environment
- ✓ Tell them you want them to study computing



How to Craft Messages: ICBI



Active Recruiting - Instill Identity



Active Recruiting - Instill Identity

Describe Opportunities and Promote Involvement

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- ✓ Community Service and Outreach
- ✓ Conference attendance
- ✓ Poster presentation



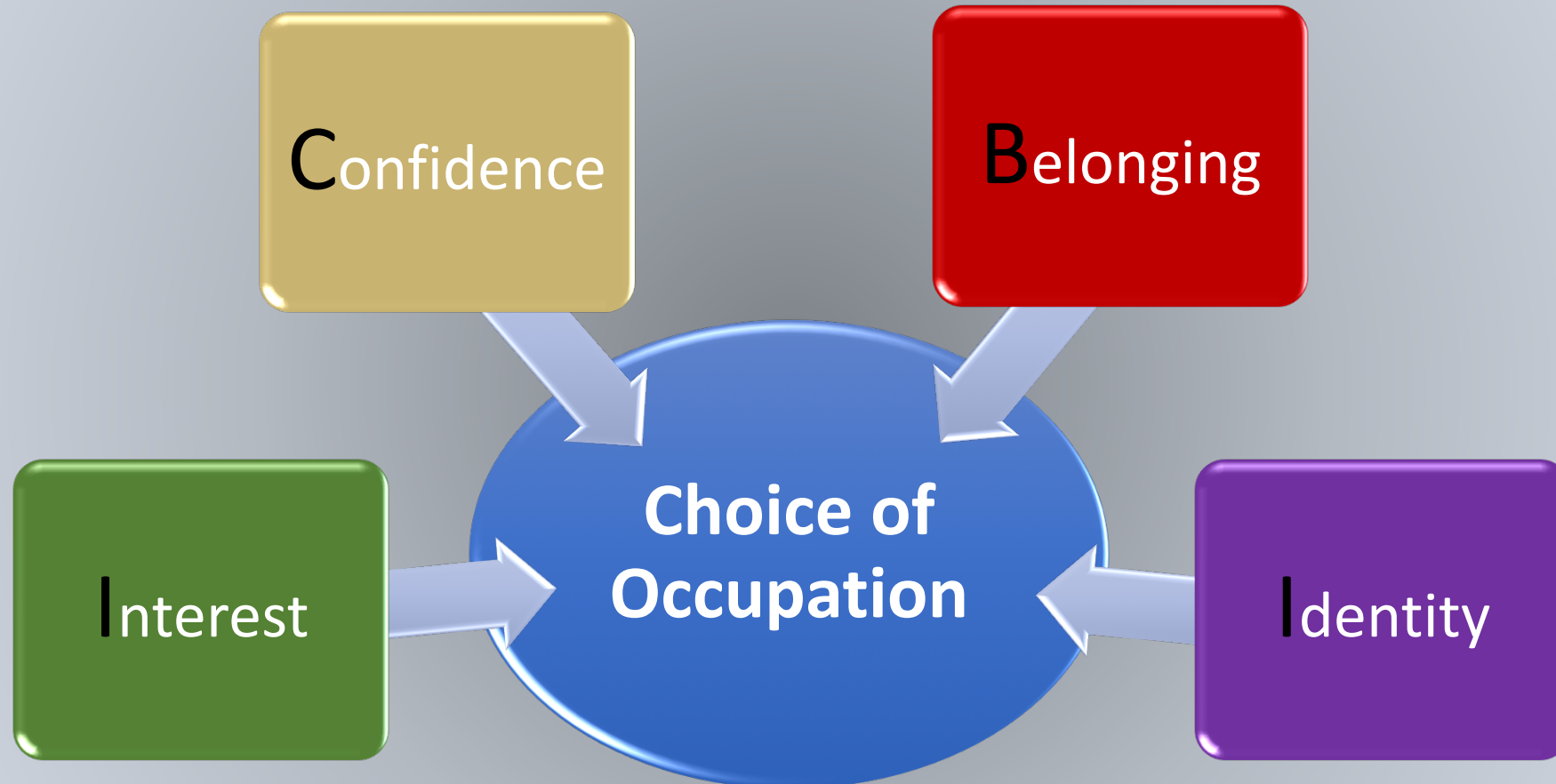
Active Recruiting - Instill Identity

Provide Intentional Role Models

Intentional Role Models to Help Build Identity



How to Craft Messages: Capitalize on ICBI



How to convey your messages

Avoid “Mythbusting” Don’t plant weeds!

- May actually create stereotypes
- Once implanted, difficult to dislodge



Reach Out to Your Audience

- Use media such as posters, announcements, videos
- Show up at orientation, elective fairs
- Connect current students with prospective students
- Other teachers, parents, guidance counselors, career placement personnel
- Collaborate with clubs, sports teams
- Social media



Exhibits, Posters, Guest Speakers

- Link computing to students' existing interests & ambitions
 - Robots saving lives, cute
- Take every opportunity to recruit
 - Joint projects
- Photos on posters
 - People rather than things



I created a smartphone app for art museum visitors.

—MaCherie Edwards

Art, technology, and a great idea

As an intern at Wellesley College's Human Computer Interaction Laboratory, MaCherie created a smartphone app that gives museum visitors background about the art they're looking at. But it doesn't just provide facts—it also asks questions that invite opinions and emotional responses from the viewer.

Time It Right

- Before course selection, not after



Make computer science VISIBLE



NCWIT Award for Aspirations in Computing raises visibility for your program & students




Make Projects Visible

- Posters outside the classroom, in the library, etc.
- Webpages
- Events

Games with a Purpose

June 18, 2013 by Leslie Keller
0 Comments



The screenshot shows a social media post with four educational game thumbnails. The first game, 'Find the Femur!', features a cartoon doctor and a human skeleton. The second, 'Sum of Forces', shows a physics diagram with a cart on a track and force vectors. The third is a spelling game with a green alien character and a text box. The fourth is a math game with a character in a forest and a math problem 3×117 . To the left of the thumbnails is a social media interaction sidebar with buttons for 'Like', 'g+1', 'Tweet', and 'Submit', along with a '6' in a box.

Students at the Wake NC State University STEM Early College High School recently hosted a Computer Science Principles Gallery Walk to showcase their "Games with a Purpose." Parents, Business Advisory Board members, school administration, NCSU computer science faculty and graduate students as well as NC New Schools were invited to view the students' final programming products. Games with a purpose are games that are developed for a function other than entertainment, such as teaching addition or about forces or anatomy.

Showcase and Publicly Celebrate Successes of Current & Former Students



Show Statistics

- Salaries are High
- Jobs are Plenty
- Careers are Satisfying

Computer Scientists Work in Every Industry

I design how animated characters move on film.



Kendal Sager
Animation/Film

I created a smartphone app for art museum visitors.



MaCherie Edwards
**Art History/
Education**

I develop computer simulations that increase our knowledge of nearby galaxies.



Gurtina Besla
Astronomy

I help bring high-speed Internet to disadvantaged communities around the world.



Clare Liguori
**Communications/
Internet Technology**

I develop software for a cochlear implant that will help people who are deaf to hear.



Sahray Gambaro
Disabilities

I create 3-D fashion design software.



Anamary Leal
**Fashion & Design/
Computer Graphics**

I develop software that can design easy-to-build shelters for victims of disasters.



Claudia Gold
**Humanitarian &
Disaster Relief**

I research ways to fight cybercrime and identity theft.



Tyelisa Shields
**Internet Technology/
Forensics**

I developed a "virtual nurse" for hospital patients.



Laura Pfeifer
Medicine

PERSONALLY PERSUADE



Overcome Objections

- Use student's names
- When students raise objections?
 - Listen and acknowledge beliefs
 - Offer persuasive evidence
 - Encourage and support



Don't let refusal be permanent

Can we talk again before you choose your courses for next term/year?

Anytime



Don't let refusal be permanent

If not now,....
consider CS next semester/term/year.

Anytime



References

- Tapestry thanks Joanne McGrath Cohoon (University of Virginia; NCWIT) and Lecia Barker (NCWIT; University of Colorado at Boulder) for their important contribution to the content in this presentation.

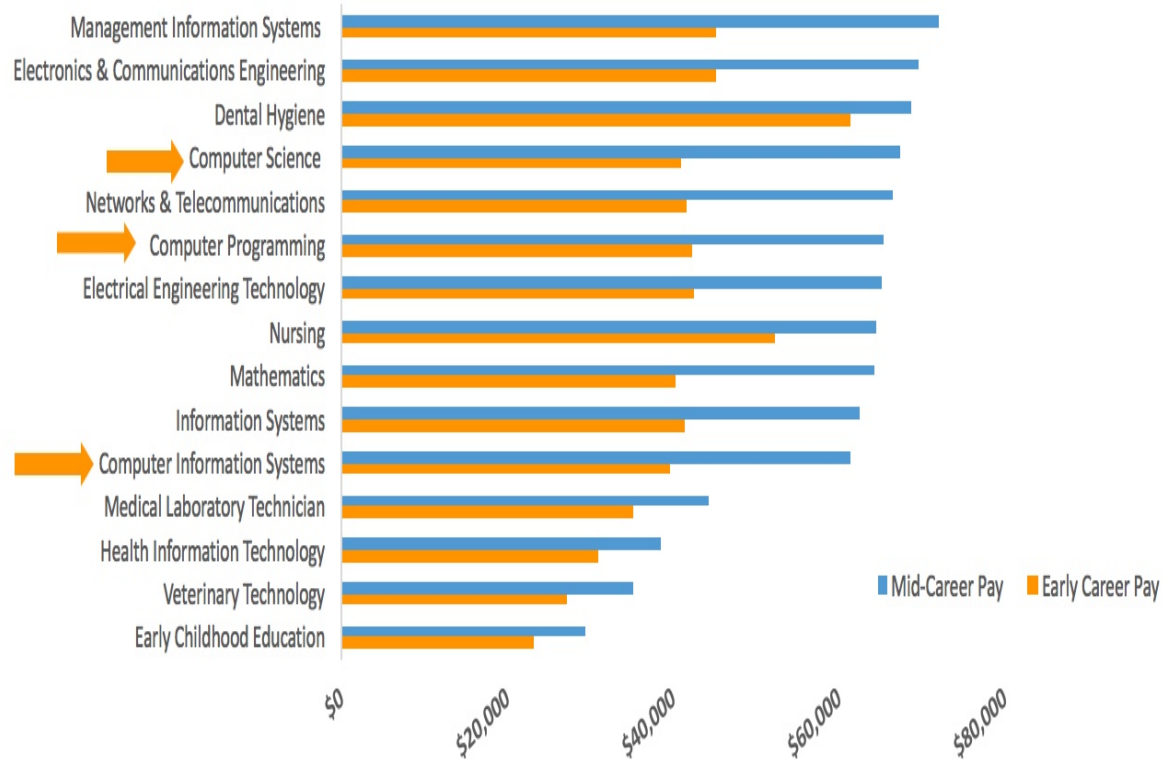
Resources

- Image on the slide 31, Make your Course projects visible: <http://ncnewschools.org/blog/games-with-a-purpose-938>
- Provide intentional role models to help build identity
 - Asian women: Feifei Li, an As one of the leaders in the world for A.I (Artificial Intelligence) , an Associate Professor at the Computer Science Department at Stanford University. [https://www.ted.com/talks/fei fei li how we re teaching computers to understand pictures](https://www.ted.com/talks/fei_fei_li_how_we_re_teaching_computers_to_understand_pictures) <http://vision.stanford.edu/feifeili/>
 - African women: <http://africantechwomen.com/top-12-african-women-in-technology/>

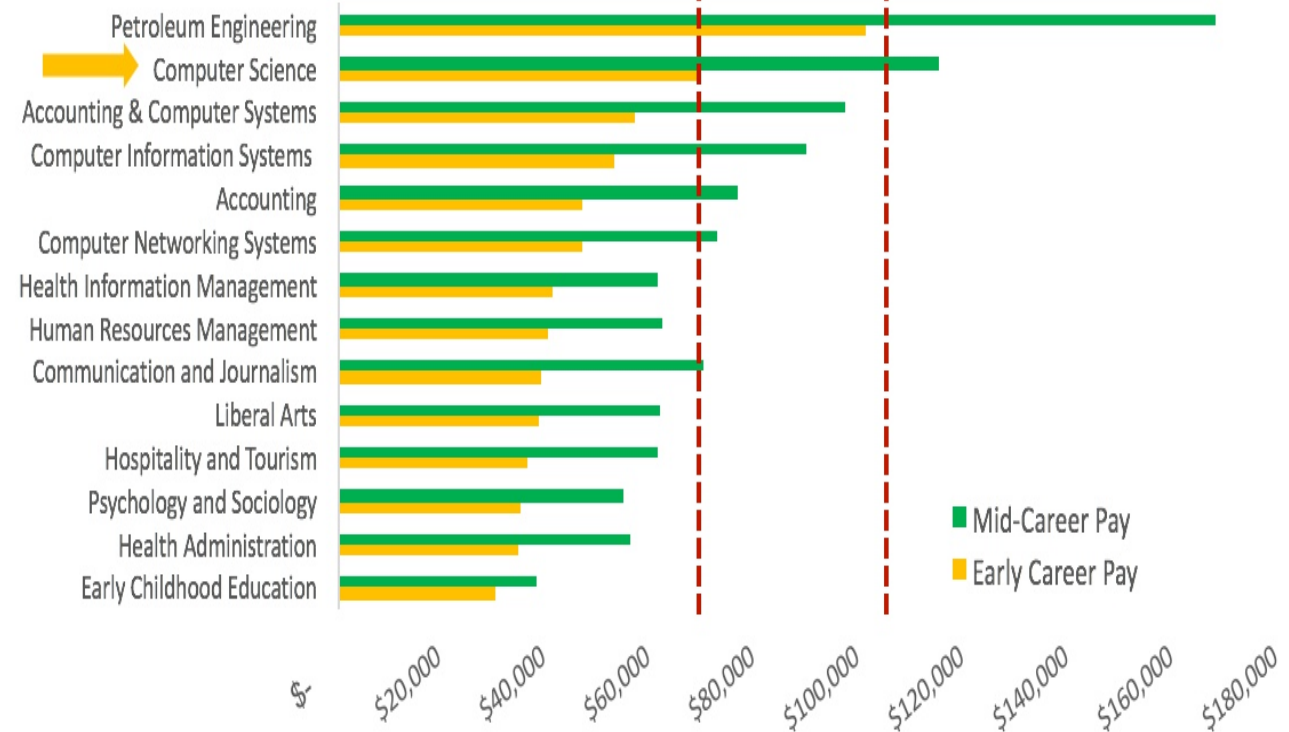
Questions?



Show Statistics: Salaries are High



Associate's Degrees by Median Salary



Bachelor's Degrees by Median Salary

Show statistics: Jobs are Plenty; Jobs are satisfying

Best Jobs in America” Reports*

US News	5 of top 15 (including #1 and #2)
Salary.com	2 of top 10 (including #1)
CNN Money	3 of top 10

*Based on job satisfaction, stability, and salary