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# Micromessaging to Reach and Teach Every Student™

National Alliance for Partnerships in Equity
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# Welcoming Awareness

**Introduce yourself to the class**

- **Name**
- **Title**
- **Organization/unit**

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# Professional Development for Educators: STEM (including CTE) Access, Equity, Diversity

## STEM Equity Pipeline™

### PIPESTEM™ Project

Working with institutional leaders (administrators, dept heads, etc.) to improve enrollment, retention & completion of girls & under-represented populations in STEM courses

### STEM Equity Teacher Training

Training teachers to use pedagogy that improves enrollment, retention & completion of girls & under-represented populations in STEM courses

### STEM Equity Counselor Training

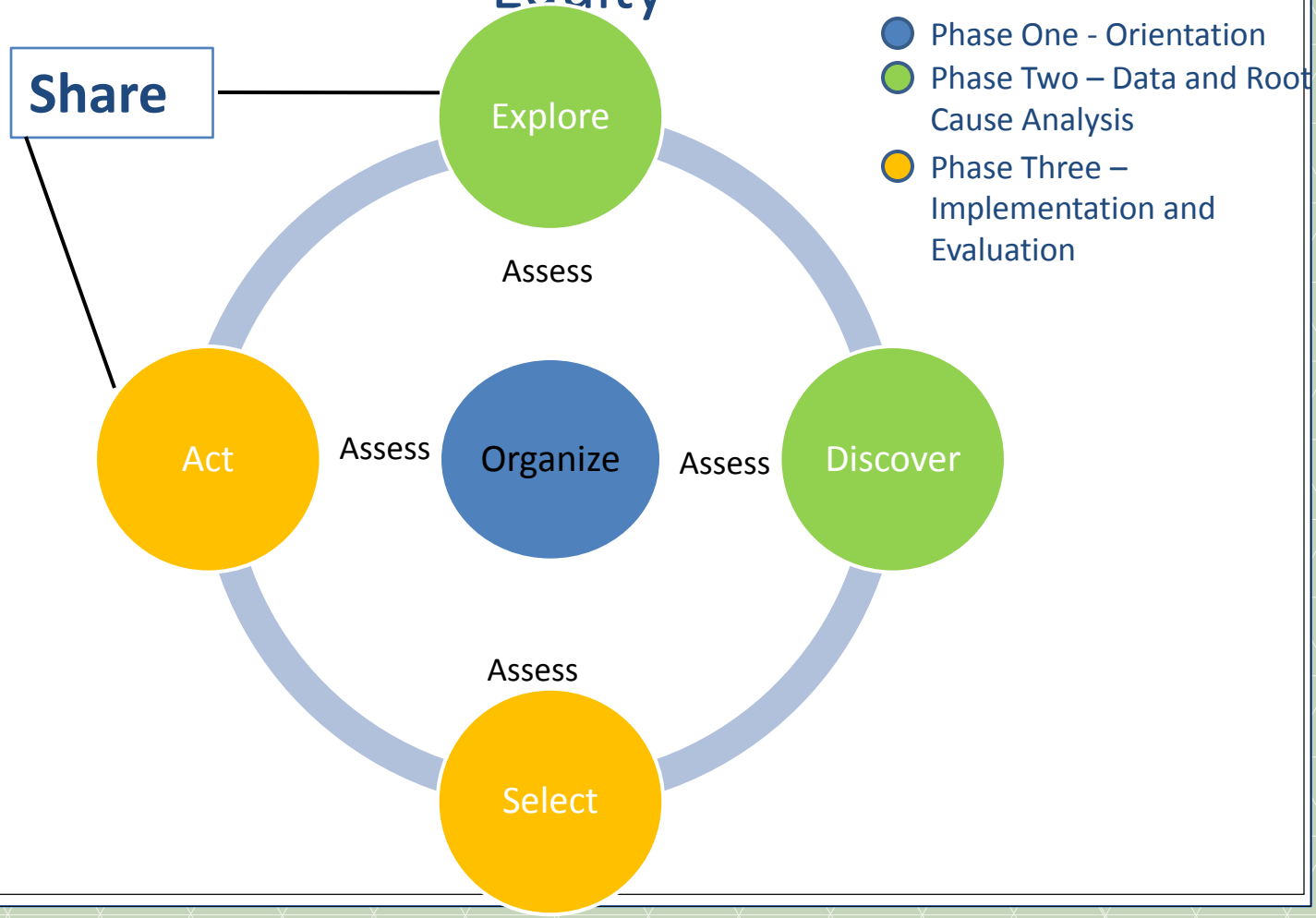
Coaching counselors to encourage girls and under-represented populations in STEM careers

### Tools & Resources

Tools to support teachers' & counselors' learning and assist their students, e.g., camps , partner orgs, books

# STEM Equity Pipeline

## Program/Pedagogy Improvement Process For Equity ™



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# The Program Foundation

# Formation of the Micromessaging Program

## High Tech High Heels Program

- Dallas-based program founded by the Women of TI (Texas Instruments) through the Women of TI Fund

## Blueprint

- One year project to build the program involving a wide diversity of expertise at multiple levels
- One year of piloting and revisions

## Micromessaging Program Delivery

- NSF-funded in Maryland
- Foundation funded in Texas
- Program includes multiple partners

# Teacher Professional Development

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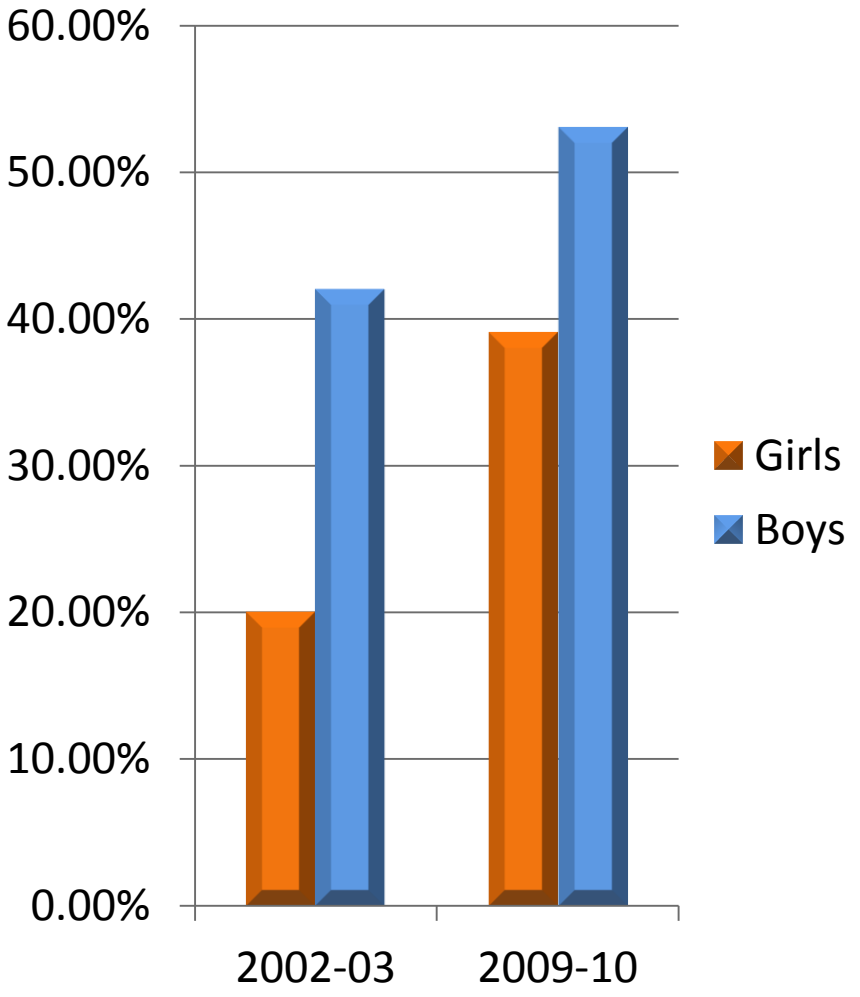
Since implementation in 2003, AP Physics test pass rates improved for both girls and boys:

- 4x tests passed by girls
- 4x tests by African Americans
- 6x tests passed by Hispanics



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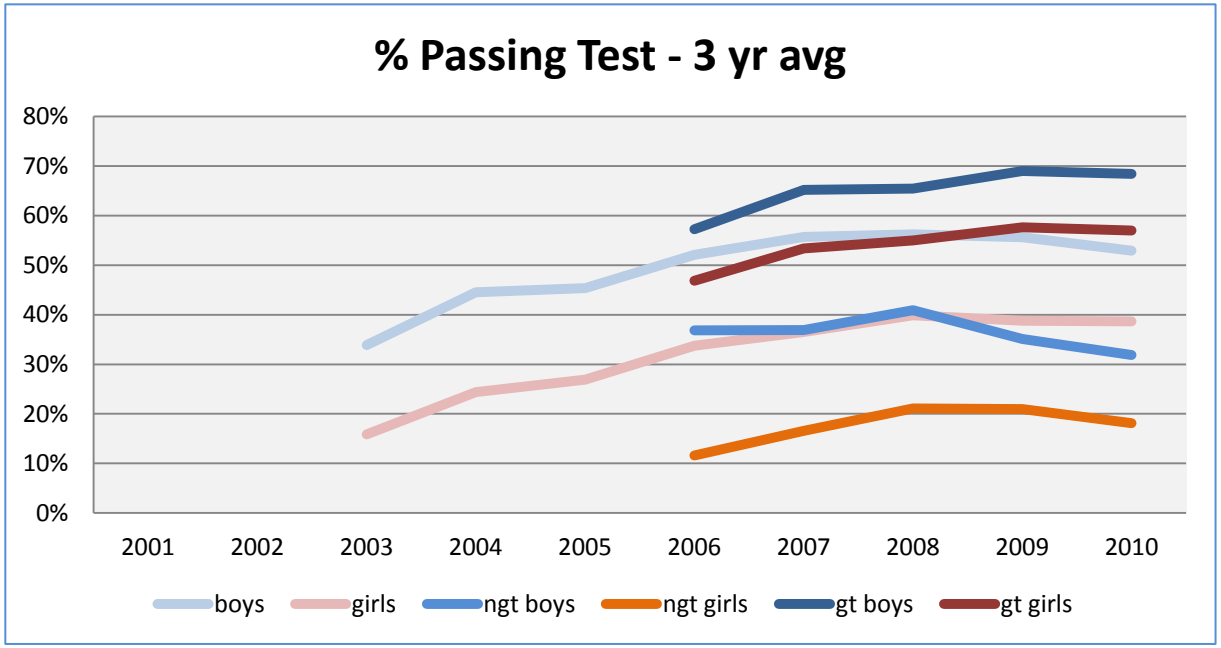
# Gender Equity Training




Both boys and girls of the teachers that had Gender Equity training are passing at 20-30% points higher than students of teachers without the training

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# Exercise

# Micromessaging

## Micromessages

- Small, subtle, semi-conscious messages we send and receive when we interact with others

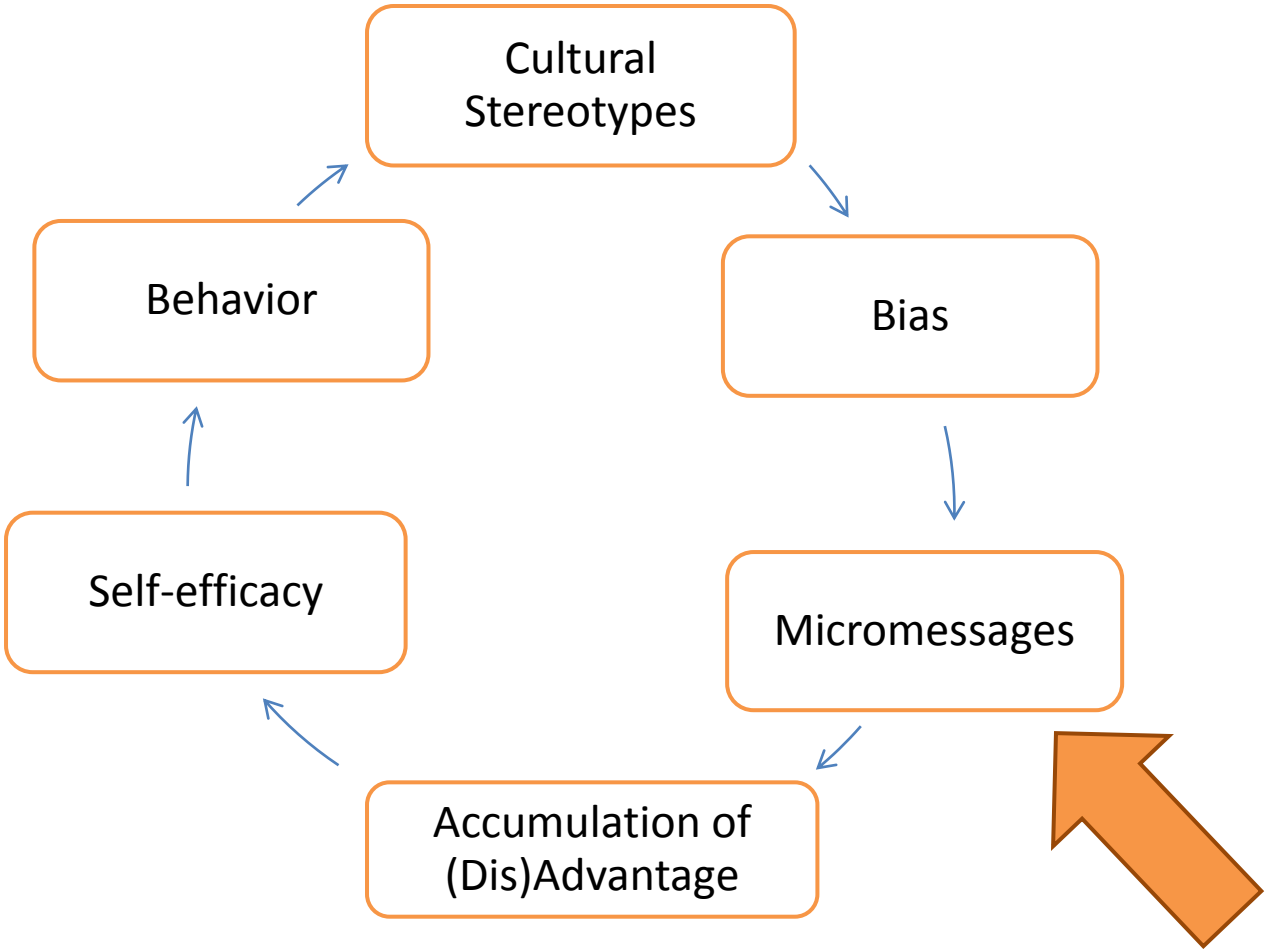
## Micro-inequities

- Negative micro-messages we send other people that cause them to feel devalued, slighted, discouraged or excluded

## Micro-affirmations

- Positive micro-messages that cause people to feel valued, included, or encouraged

# Micromessages: The Missing Link Between Bias and Behavior



# Tech Alert October 27, 2011

Dear Members and Readers,

Please accept our sincere apologies for the headline in today's Tech Alert: "With the Arduino, Now Even Your Mom Can Program." The actual title of the article is "The Making of Arduino."

IEEE Spectrum

# Gender Bias = Micro-Inequities

Unconscious

Unintentional

Subtle

PERVASIVE

POWERFUL

# Why Think About Micromessaging?

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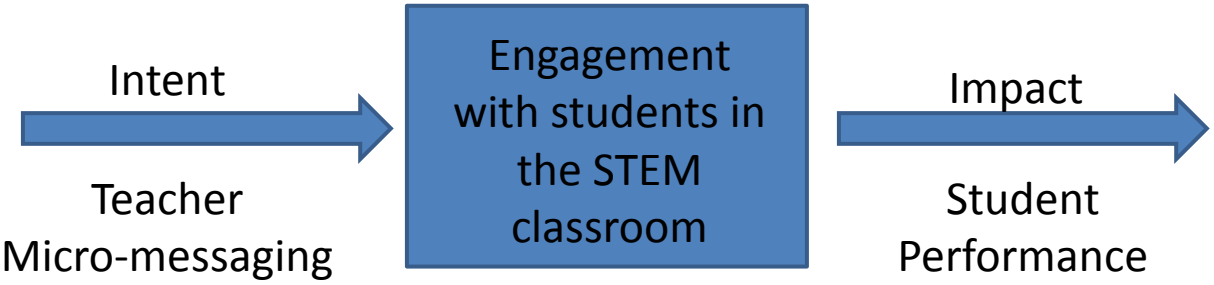
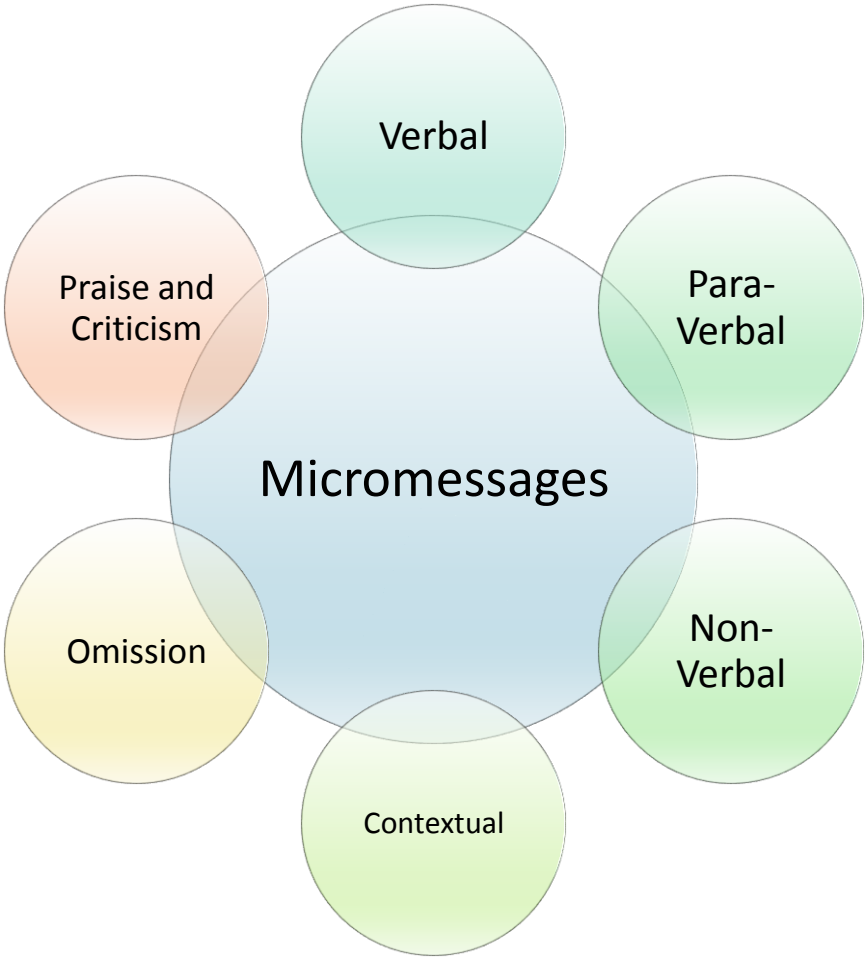



Small and seemingly insignificant behaviors may result in unfavorable learning outcomes.

## Impact is More Important Than Intent!

# Key Micromessaging Elements



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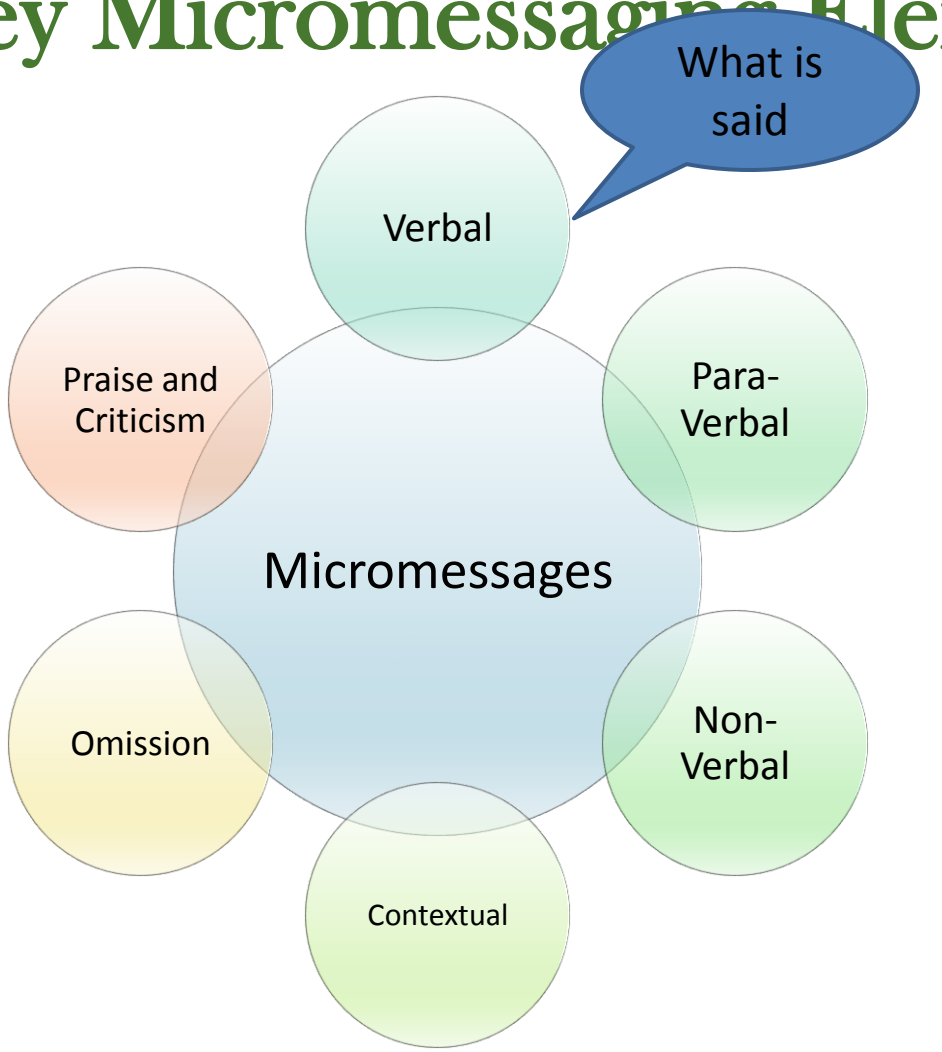

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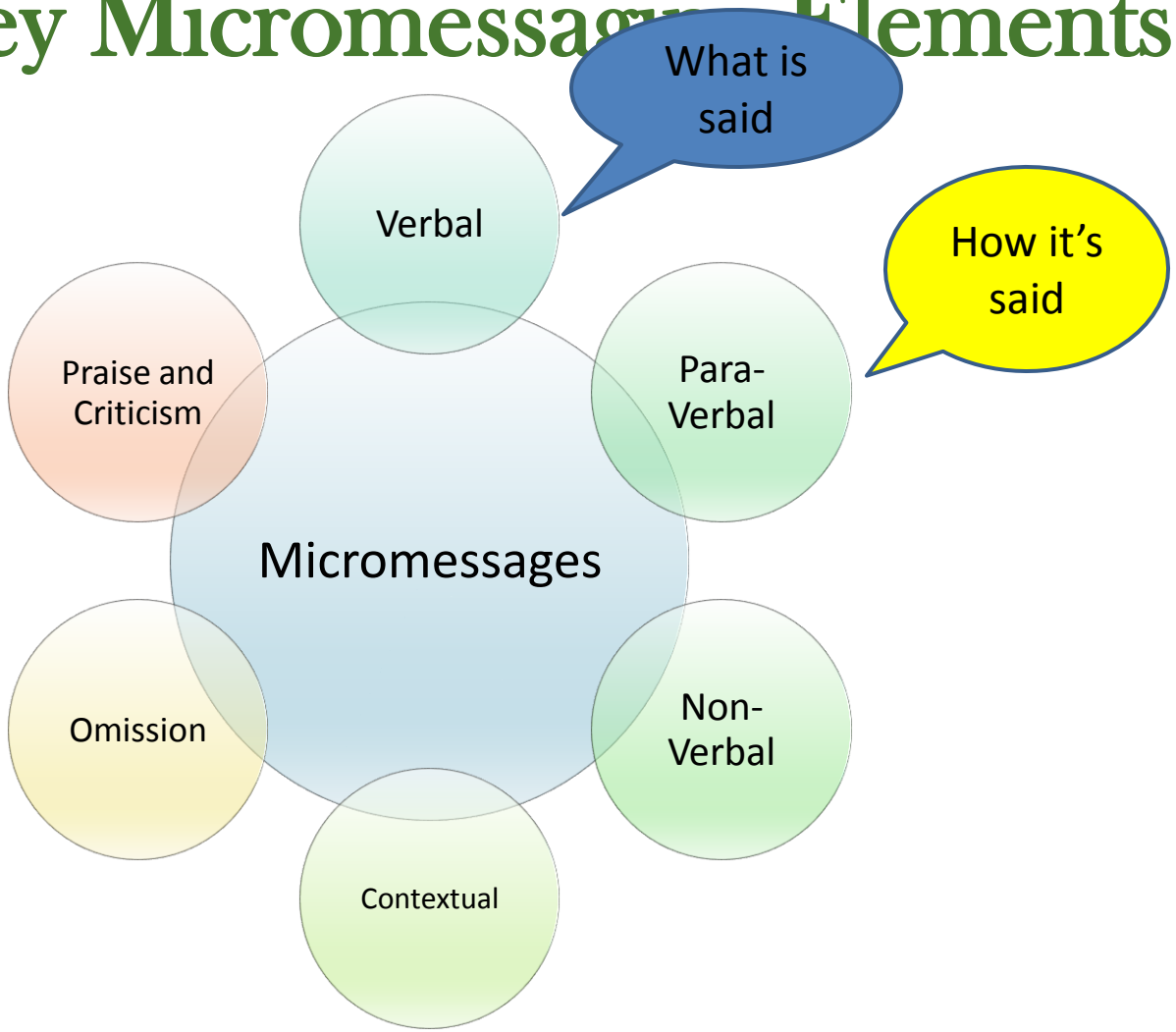

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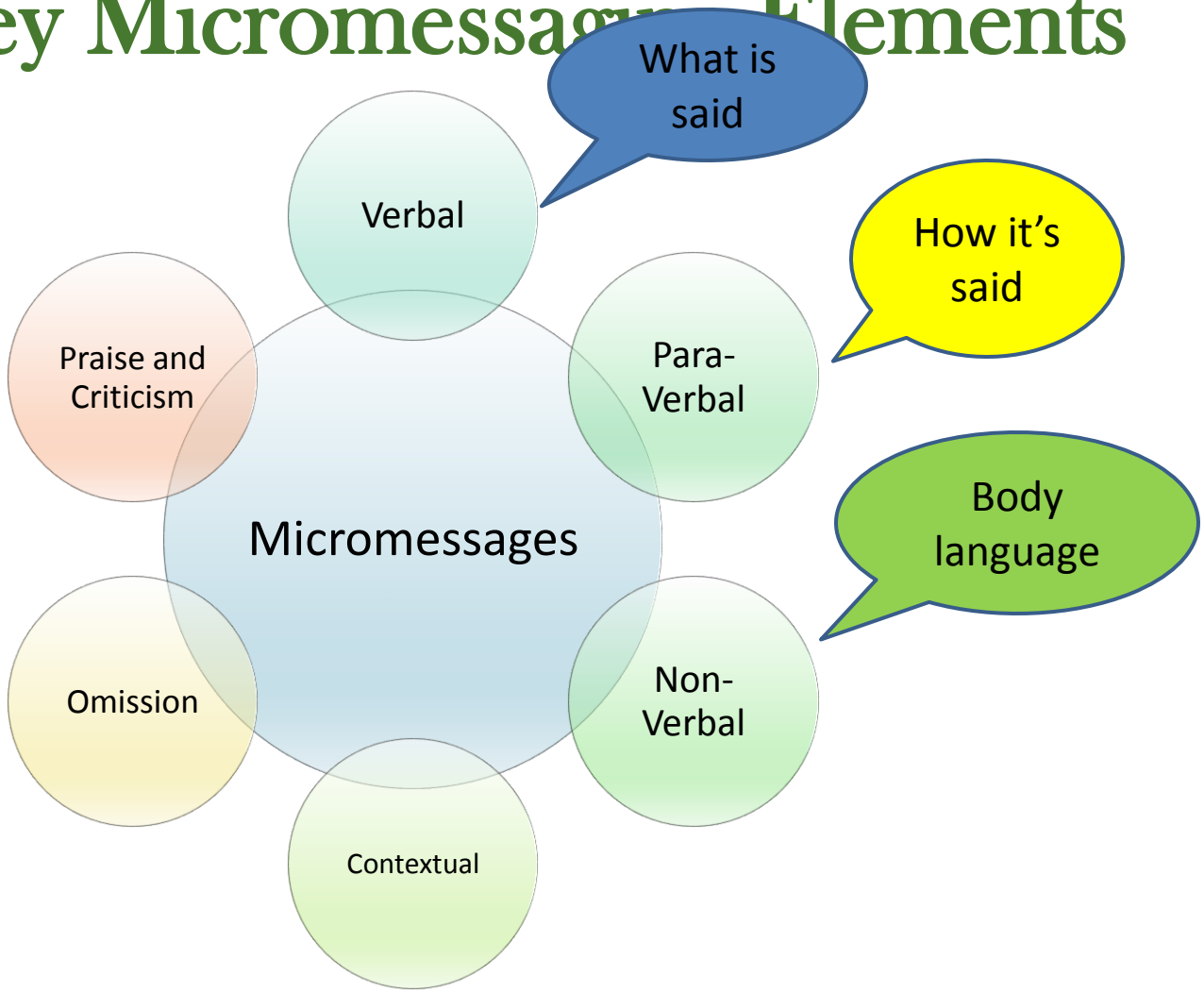

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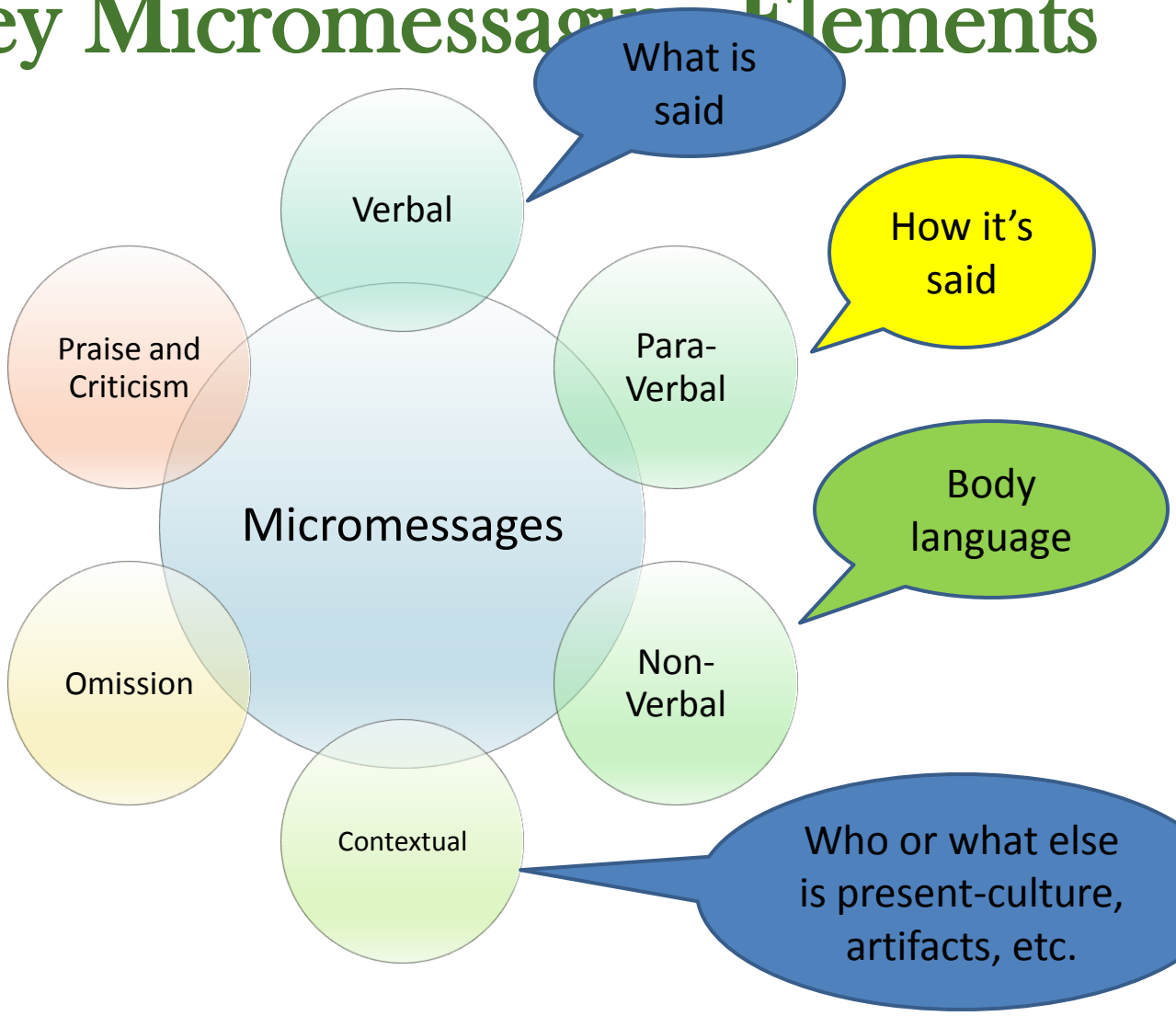

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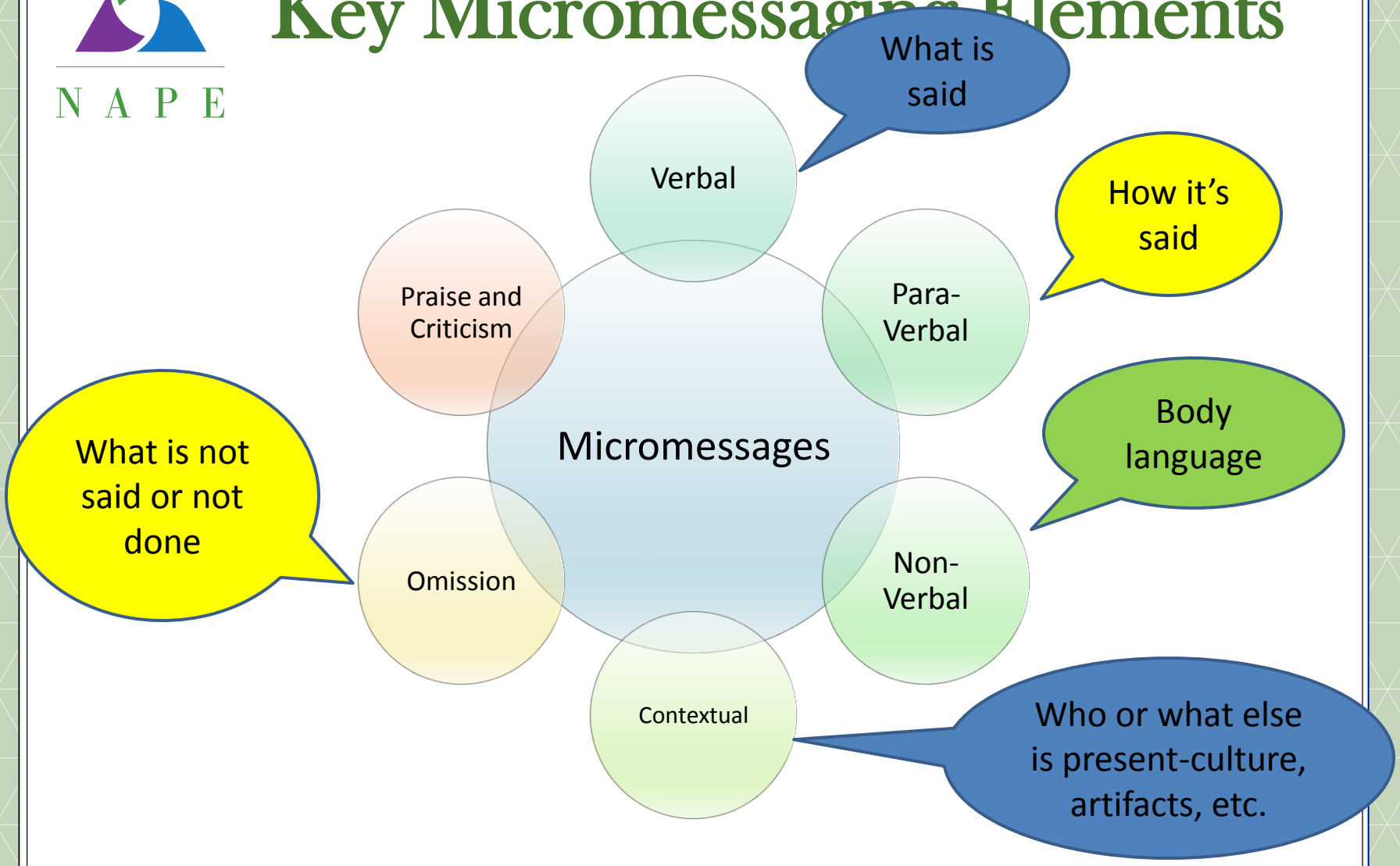

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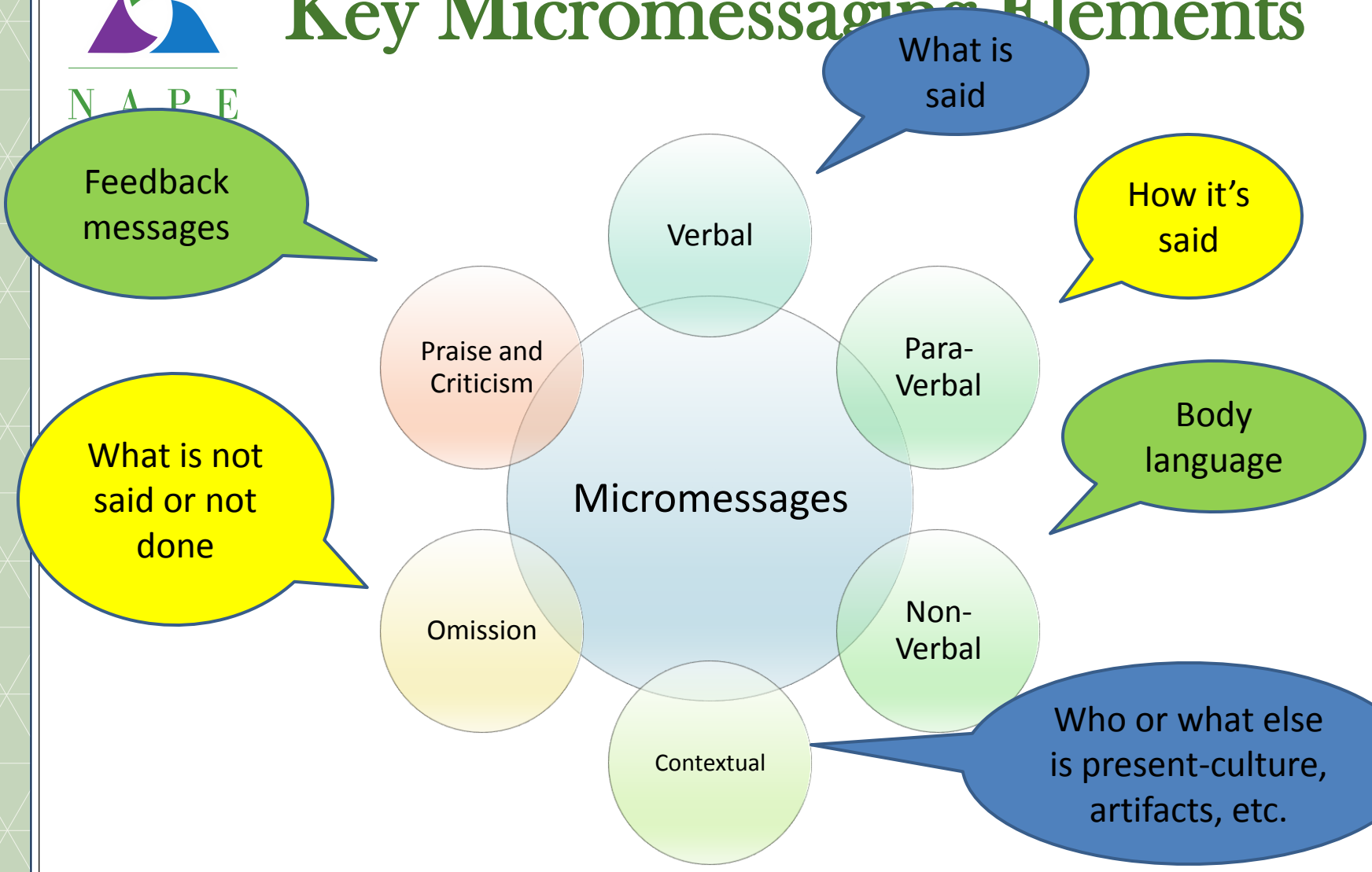

# Activity: Guess the Element

| Cue | Type |
|---|---|
| Wait longer for boys' answers than those of girls | |
| Discipline boys more than girls for similar behavior | |
| Avoid eye contact with female/male student; only look at male/female students | |
| Consistent use of generic "he" or "man" to represent both men and women | |
| Only use males as examples of scientists | |
| Do not tolerate girls calling out answers but tolerates that behavior from boys | |

# Examining the Small

On a piece of paper write a specific incident when you were being…

- unintentionally discouraged or hurt by something SMALL someone said or did
- deeply valued by your colleague or family member in a SMALL yet powerful way.

*- How did you know? What did that person do to communicate your value?*

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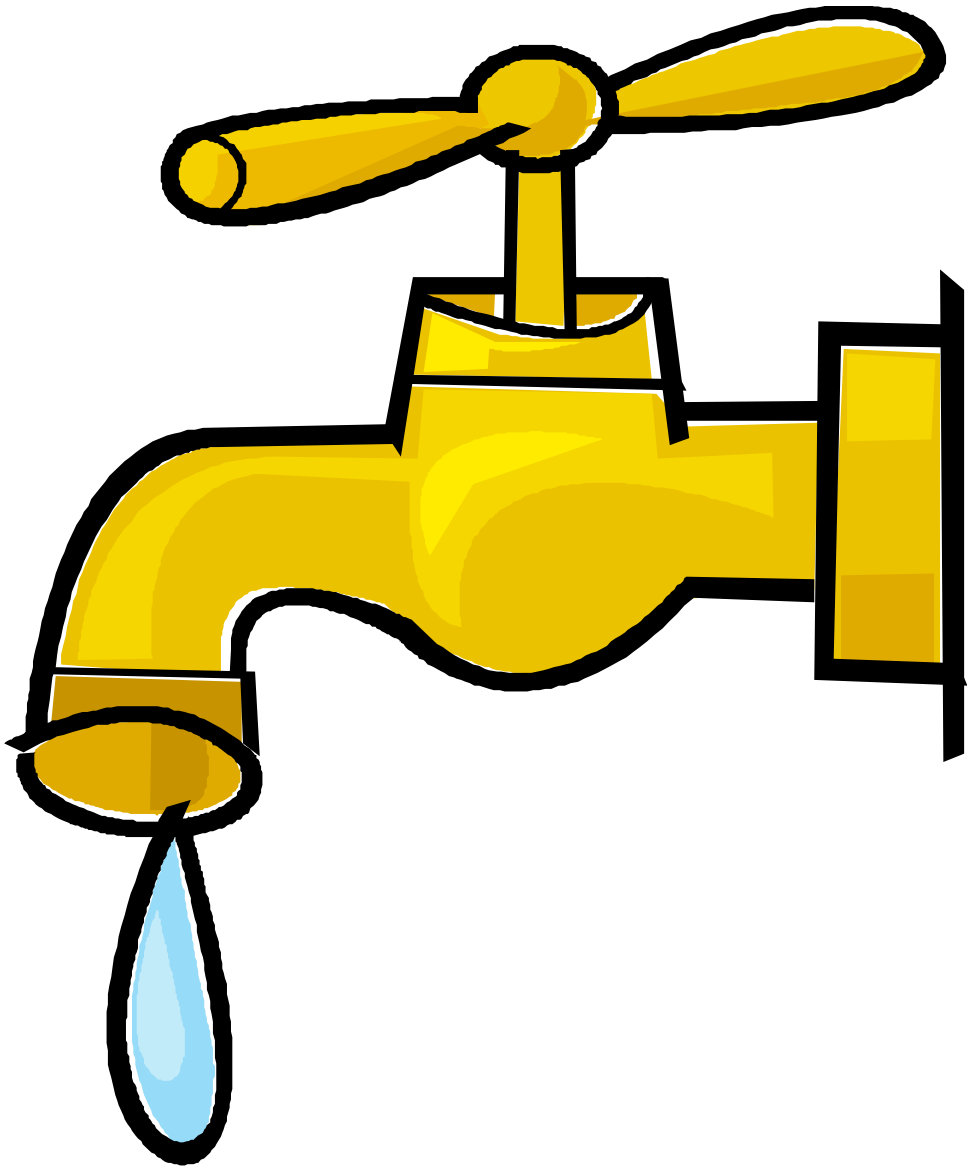


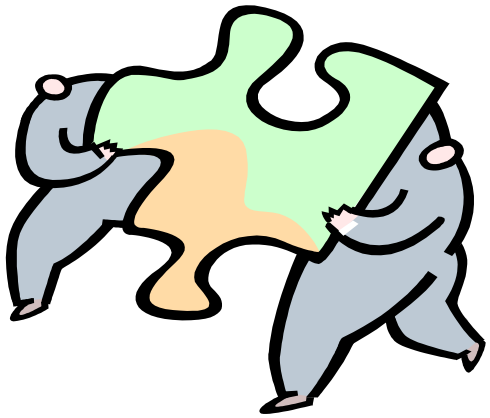
# Positive Micromessages

Micro-affirmations are micromessages we send that validate and recognize other people in positive and supportive ways.

# Be Affirmative!

Make a concerted over-effort to become affirmative:

- It takes time (a year or more!)
- It takes effort (a conscious plan)
- It takes support (peers and a learning community)



# Impact of Micro-Affirmations on Women in STEM

- Enhanced creativity and innovation and willingness to take risks
- Increased engagement in complex tasks and open-ended thinking
- Improved caring about learning
- Increased interest in STEM and development of girls' STEM-identity

# EE-STEM Academy

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7 Modules of research based Instructional Strategies, about 24 hours over 12-18 months

- Setting the Stage
- Micromessaging
- Neuroscience
- Social Learning Theory
- Influence of Culture
- STEM Careers
- The Equitable Classroom

Participants are asked to form an ongoing learning community

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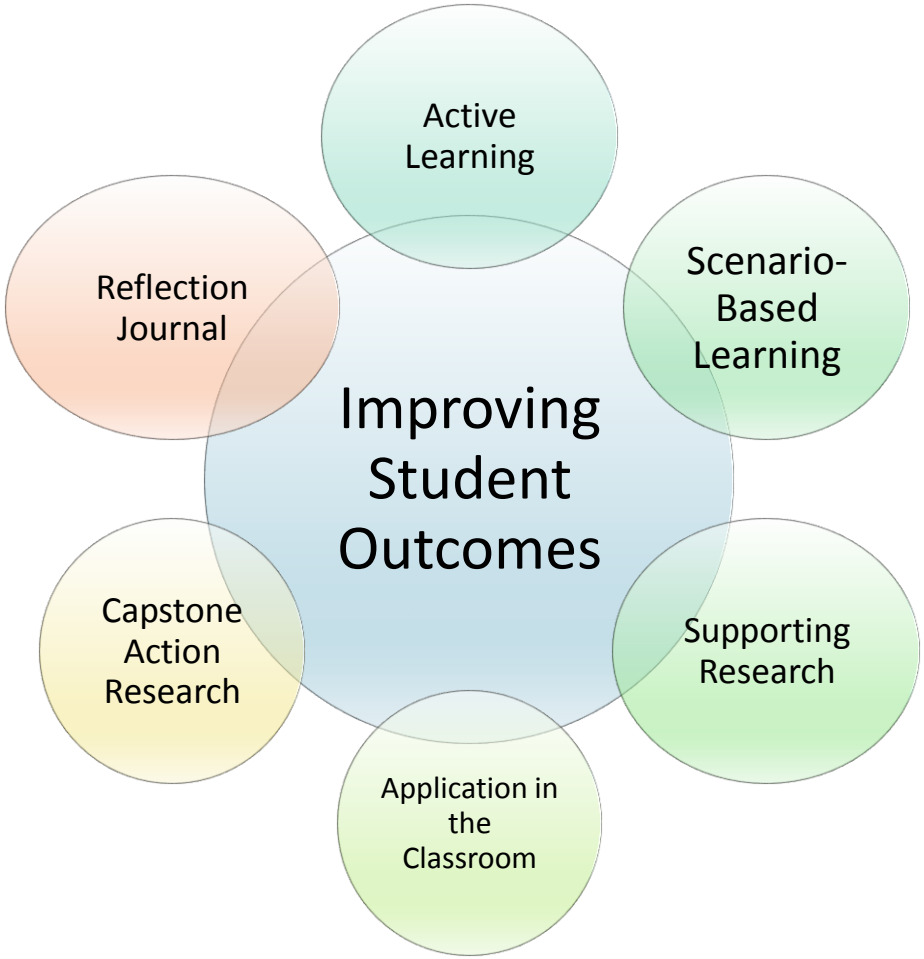
# Making It Happen



# Key Program Elements

- Aligned to National Professional Development Standards (2001 and 2011)
- Aligned to Maryland Professional Development Standards
- Professional Learning Communities
- Combines Research and Evaluation
- Campus Liaisons
- On-line tools and resources
- Access to NAPE extended resources

# Teachers want strategies that:

- Are based on solid data collection and analysis
- Lead to an equitable classroom environment
- Consider and integrate research-based social and cultural issues
- Counteract micro-inequities by building micro-affirmations
- Be based on observations, reflection, and data

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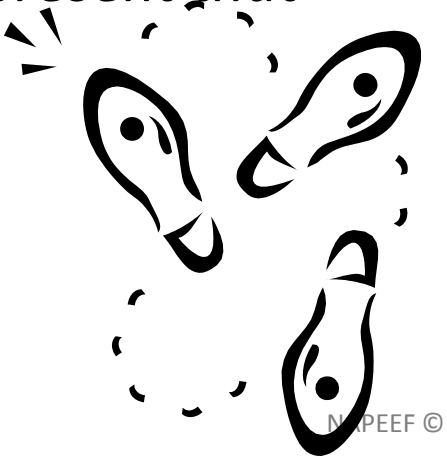
# The On-line Application

# Exercise

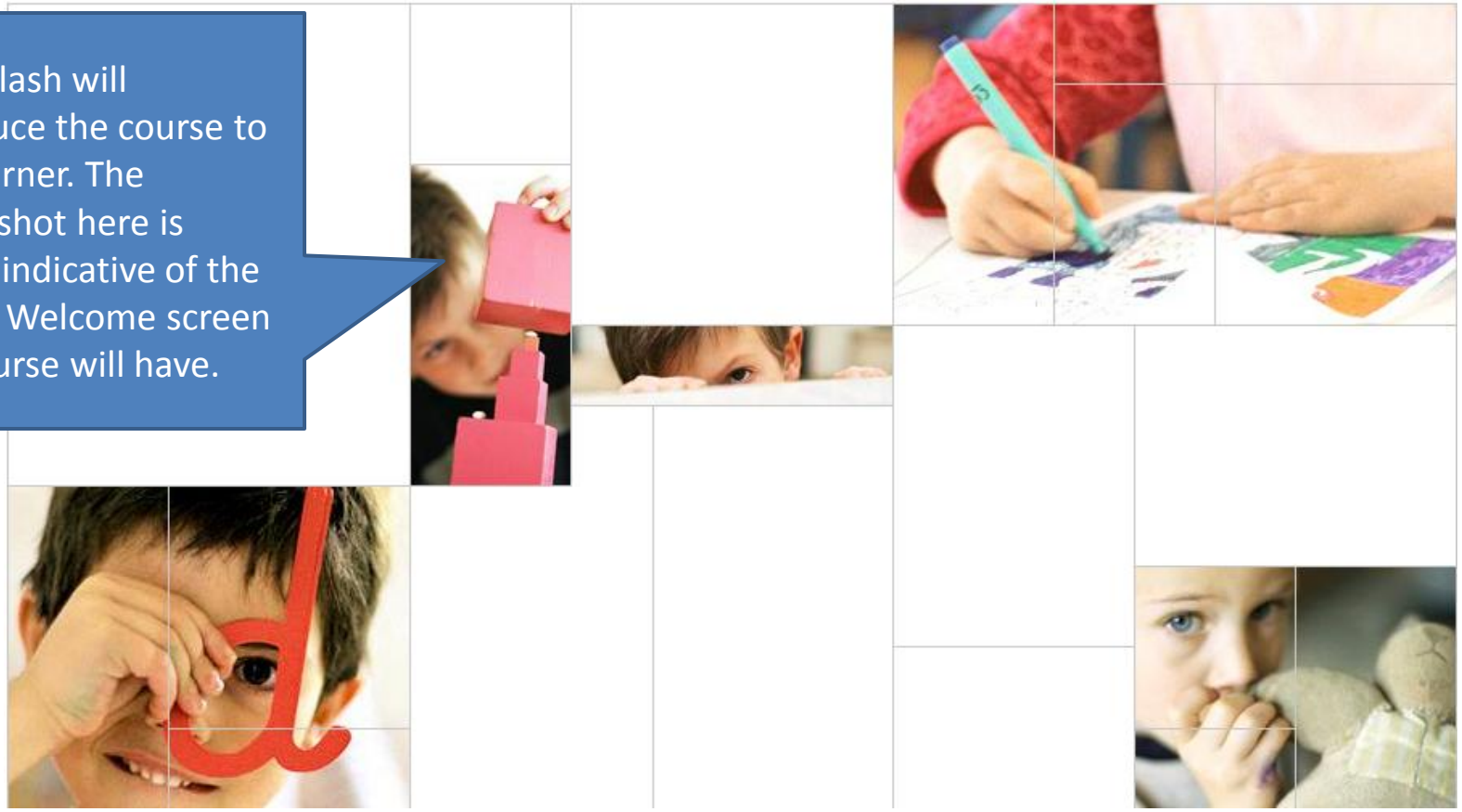
1. Step forward or backward if you feel the prompt relates to you.
2. Reflect on this question:

   *How do you feel about what you learned from the Dance of Structural Inequality? How can we represent that experience in an on-line environment?*



# SPLASH: INTRODUCTION TO THE COURSE

The Splash will introduce the course to the learner. The screenshot here is purely indicative of the sort of Welcome screen the course will have.



# About the E-Learning Content Phase

- The e-learning phase of this course follows a two-pronged approach, where each of the units will comprise a **Tutorial** and a **Simulation**.

- The **Tutorial** is a teach module focusing on the key concepts of the respective unit and uses self-checks to reinforce learning.

- The **Simulation** provides you with an opportunity to apply the knowledge you have learned during the Tutorial.

- Additionally, throughout the course, you will be able to access the **Resources** from the top-right corner of the screen. This will provide you with access to further reading, strategy documents, research nuggets, and other useful tools.

# Menu

- Welcome to the second unit that deals with the role micromessages play in your interactions with your students. Upon completion of this module, you will be able to demonstrate the following:

1. *Your understanding of the concepts of micromessaging and how they affect students, as well as school and classroom culture.*
2. *Your learning of the concepts through a self-check for understanding.*
3. *Your understanding and effective uses of pedagogical strategies to improve diverse student achievement through an on-line classroom simulation.*

- First, you must acquaint yourself with the concepts and facts covered in the **Tutorial**. Once you are confident of your understanding, proceed to apply it in the **Simulation**. You can play the simulation only after completing the tutorial.

Tutorial

Simulation

# Your Class

*You have an entry-level pre-engineering 9th grade high school class with eight students. You now have to intervene in three different situations to help your students.*

To meet your students, click the icon given here.

When the learner clicks on the **Scenario 1** button, s/he will view the description in this panel.

| | |
|---|---|
| Situation 1 | It's the first day of school and the boys enter the class. They all seem to know each other. They cluster together, talking freely among themselves. They are teasing Reagan about his broken arm, but it seems to be in the spirit of playful goodwill. |
| Situation 2 | |
| Situation 3 | |

# The School Lab

## Meet Your Students

When the learner clicks on the **Meet Your Students** icon, s/he will view this popup.


Greg


Dipak


Reagan


Peng


Chris


Amita


John


Tameika

# Note to Reviewer

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A decision tree allows for personal reflection about choices and safe decision making . (This screen is not a part of the course.)

Decision 1:

How do you handle the situation when the girls are not interacting with the other students?

Decision 2.1

How do you handle the situation when the students haven't been properly introduced and need to pair up for an activity?

Decision 2.2

How do you handle the situation when the students have been properly introduced and need to pair up for an activity?

# Your Performance

C lick each **Q** tab to view specific feedback on your performance.

First Decision

Second Decision


# Applications in the Classroom

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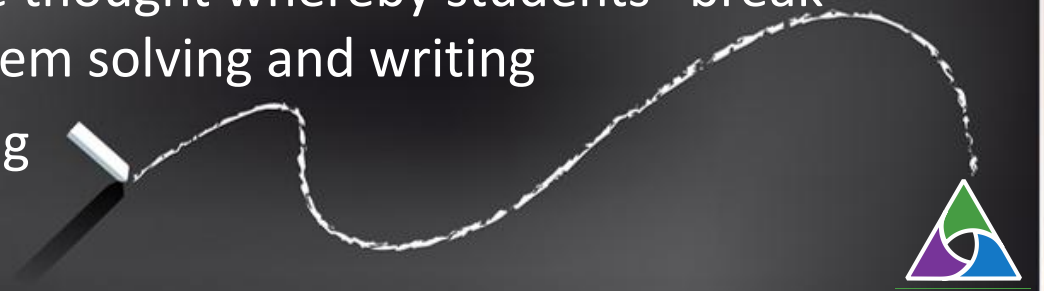
# Super Strategies

- Involve, invite, and include parents in discussions about the student's academic progress.
- Involve like-minded peers in programs to foster a sense of belonging in the academic community.
- Practice positive naming—help the student identify someone in their life who recognizes the student's potential, connects the student's strengths to characteristics of a profession, and teaches them how to enter that field.
- Be diverse in the examples used in the classroom to illustrate concepts and ideas.

# Pedagogy Points

A diversity of learners will benefit from the diversity of strategies for conveying information in the classroom. For instance, consider how you might deliver a lesson using the following:

- Direct instruction
- Inquiry training
- Non-directive (facilitative) teaching and self-esteem building
- Synectics or creative thought whereby students "break boundaries" in problem solving and writing
- Collaborative learning
- Group investigation
- Role playing



# Questions and Comments?

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