



N A P E

National Alliance for Partnerships in Equity Education Foundation

Micromessaging to Reach and Teach Every Student™

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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

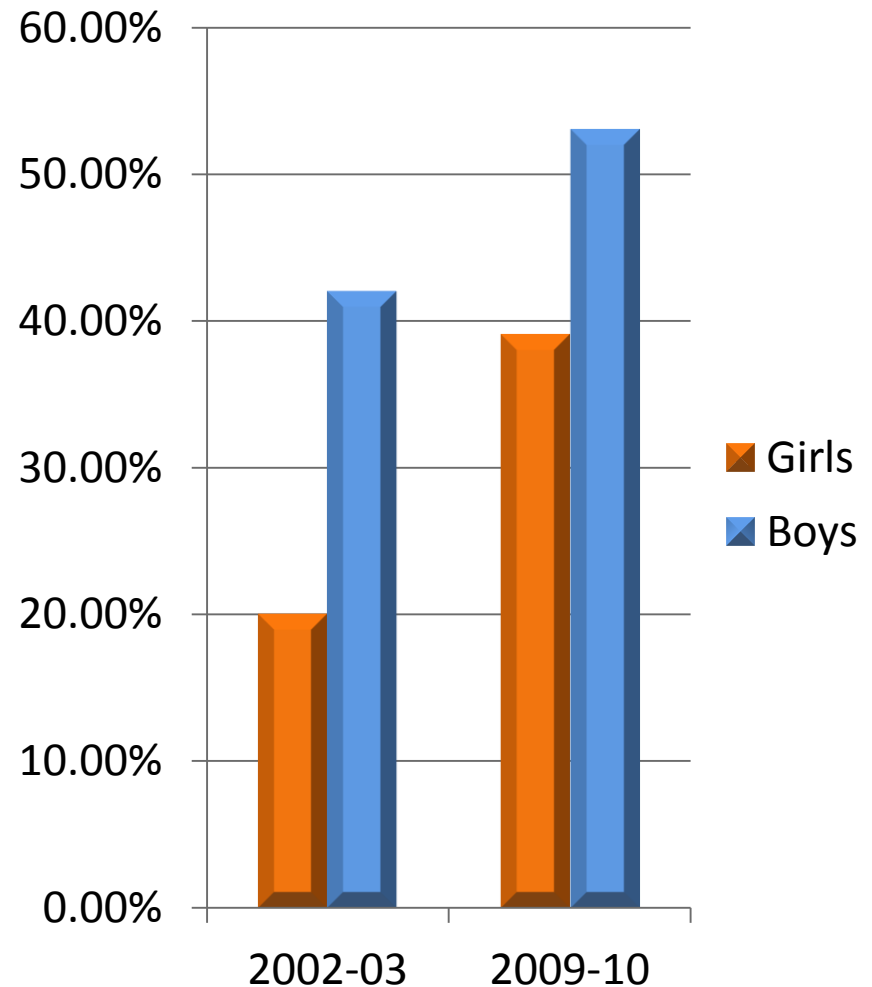


Teacher Professional Development

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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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Exercise



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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





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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



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Gender Bias = Micro-Inequities

Unconscious

Subtle

Unintentional

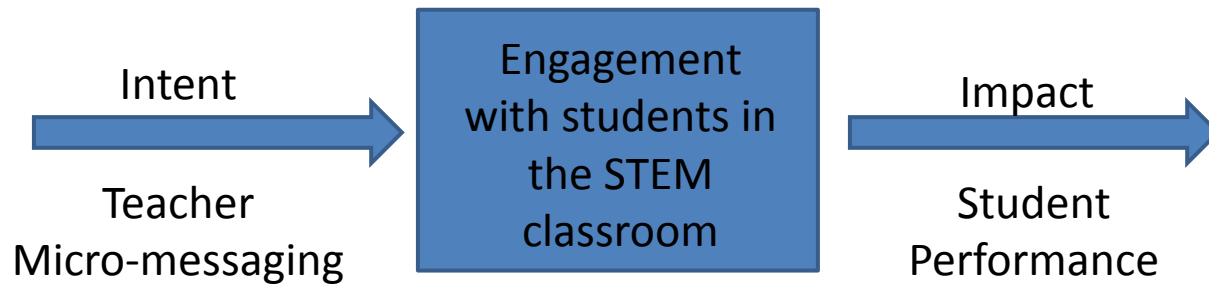
PERVASIVE

POWERFUL



Why Think About Micromessaging?

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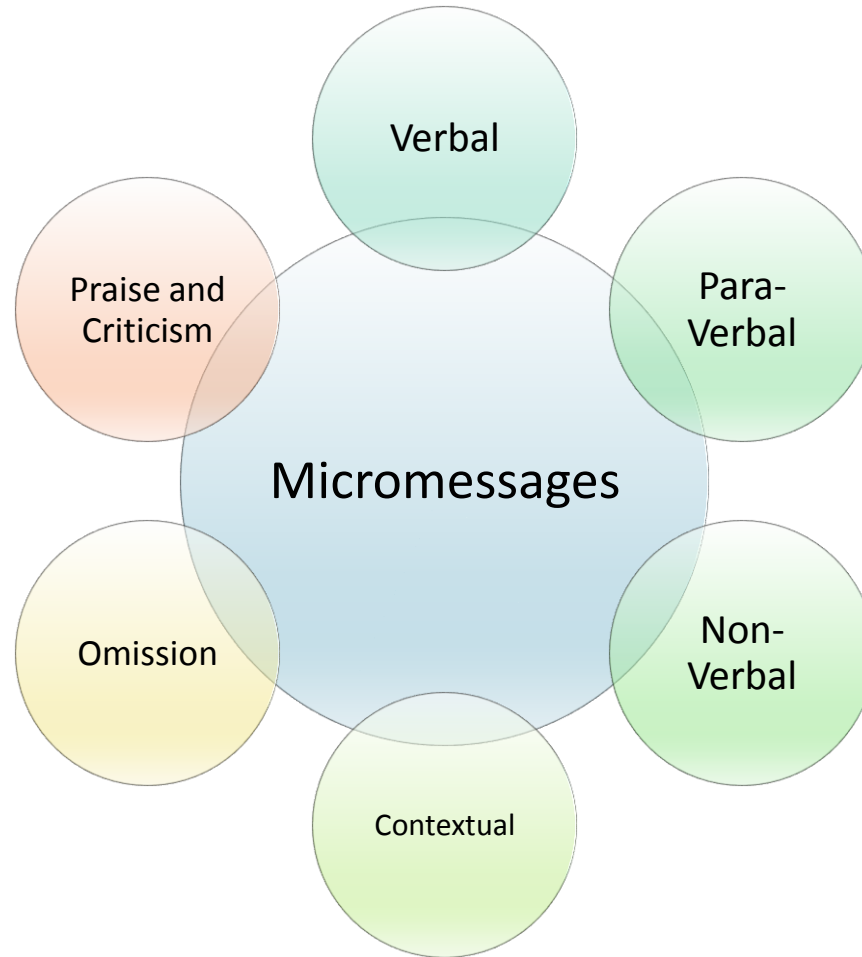
Small and seemingly insignificant behaviors may result in unfavorable learning outcomes.

Impact is More Important Than Intent!



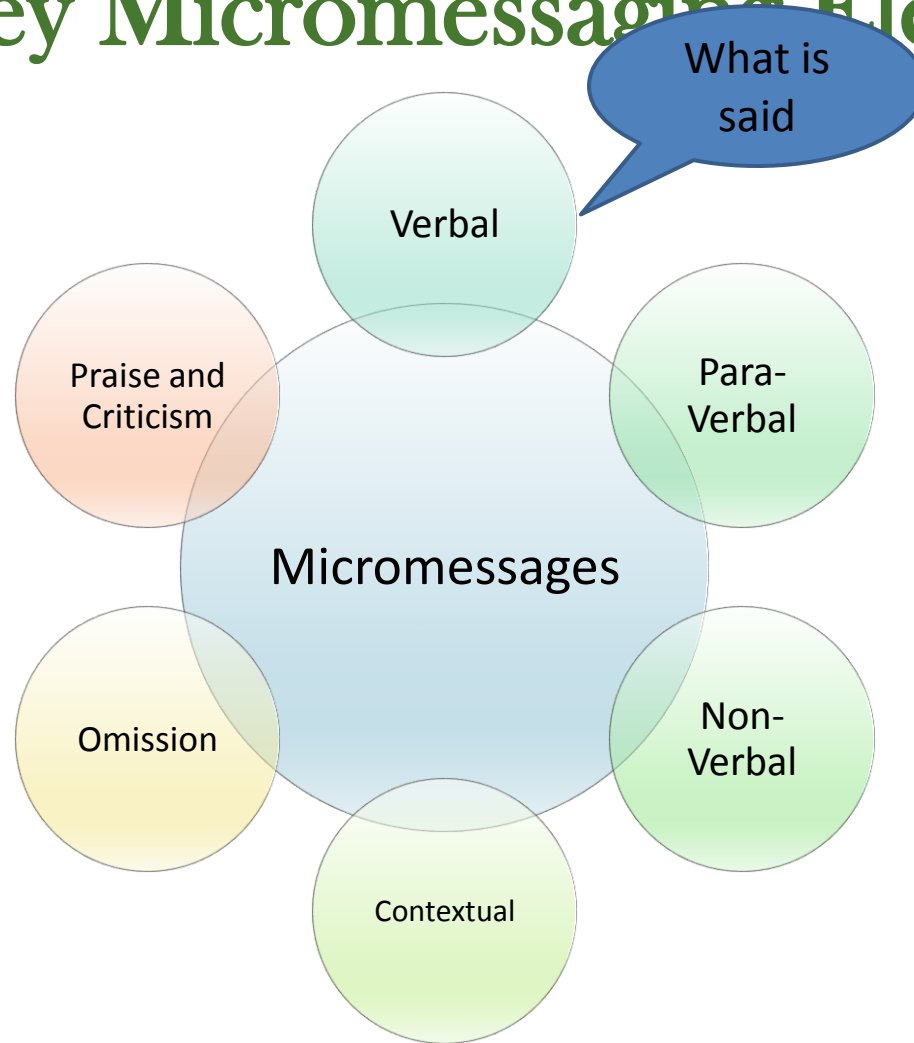
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Key Micromessaging Elements



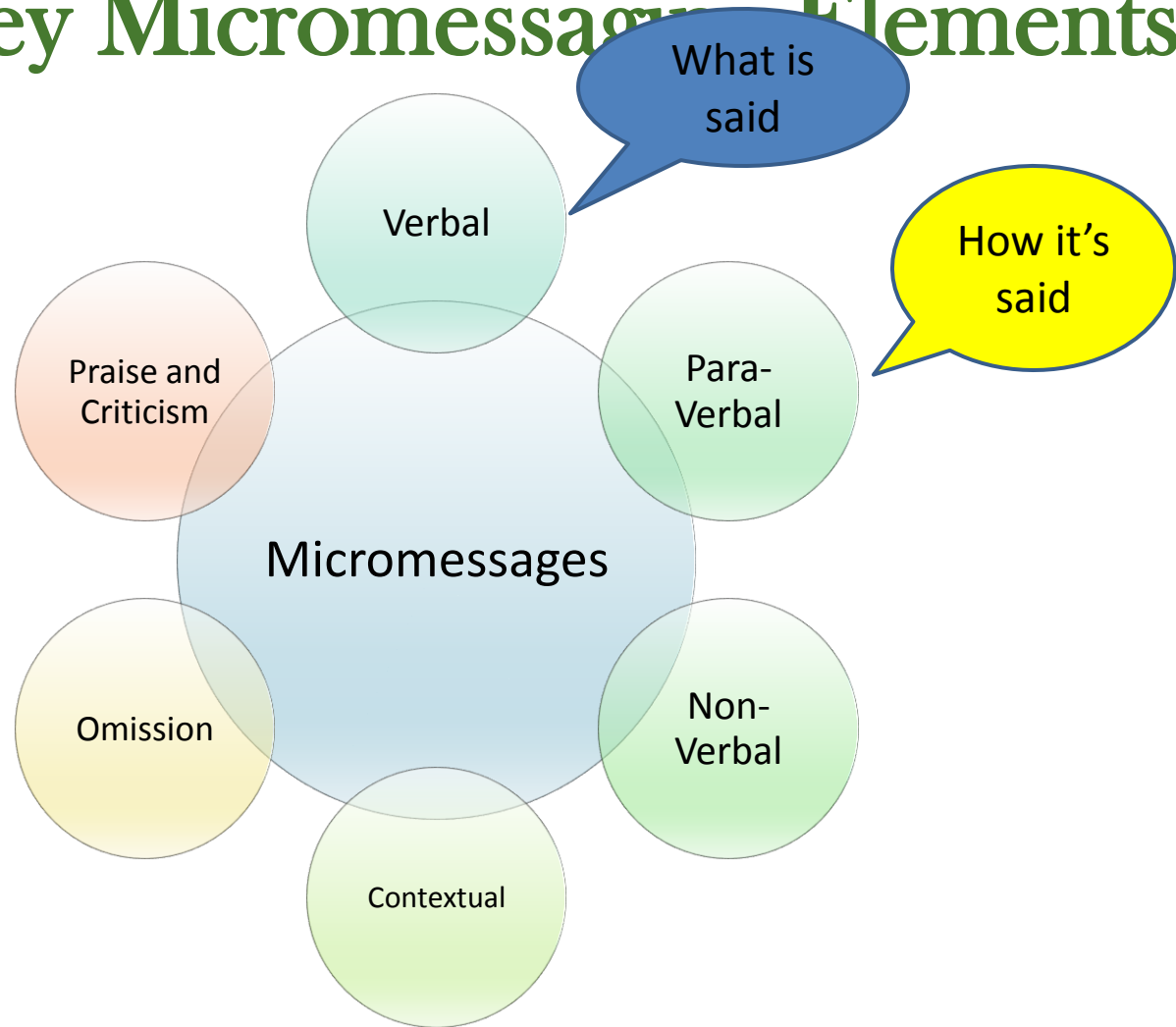


Key Micromessaging Elements

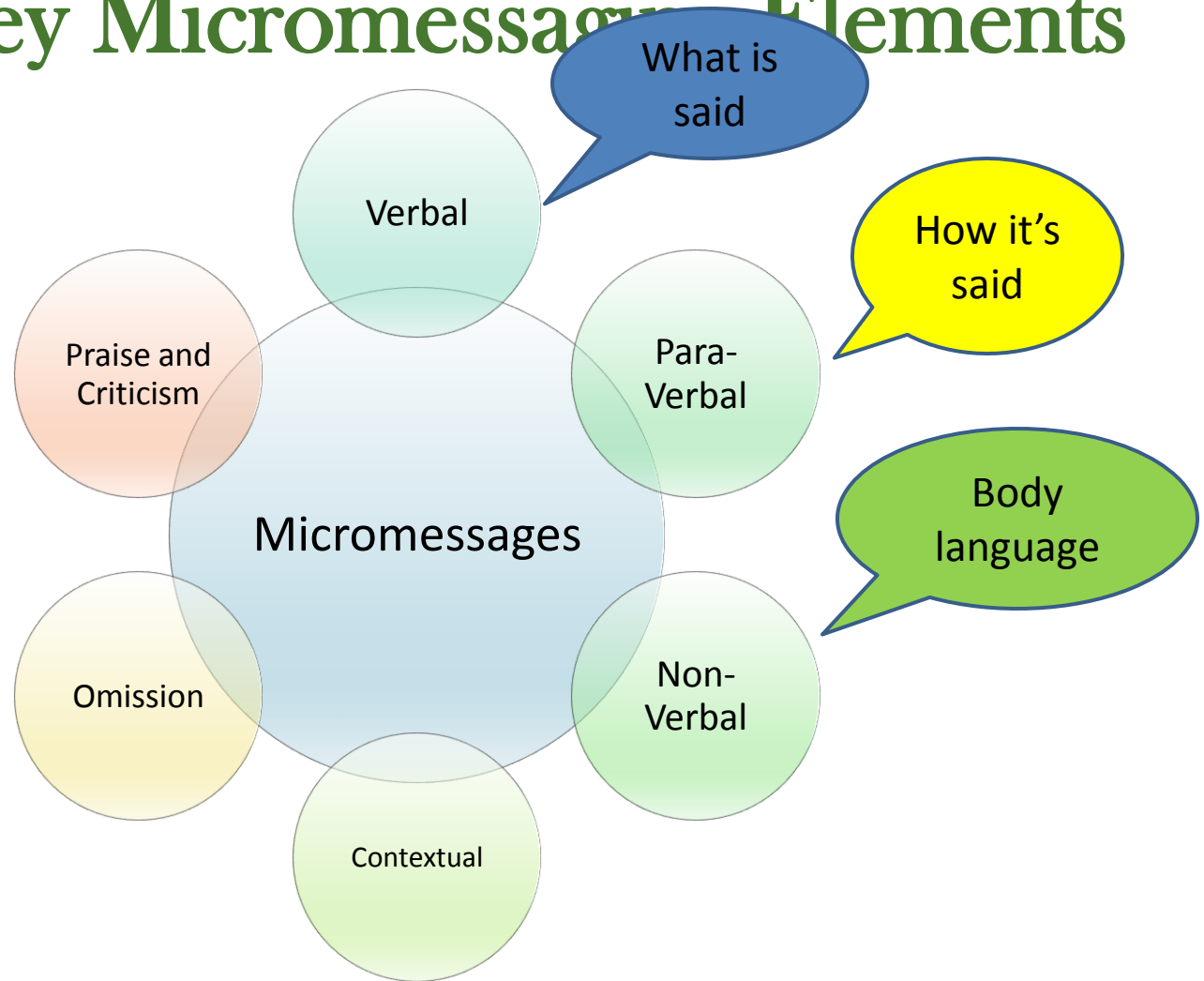




Key Micromessaging Elements



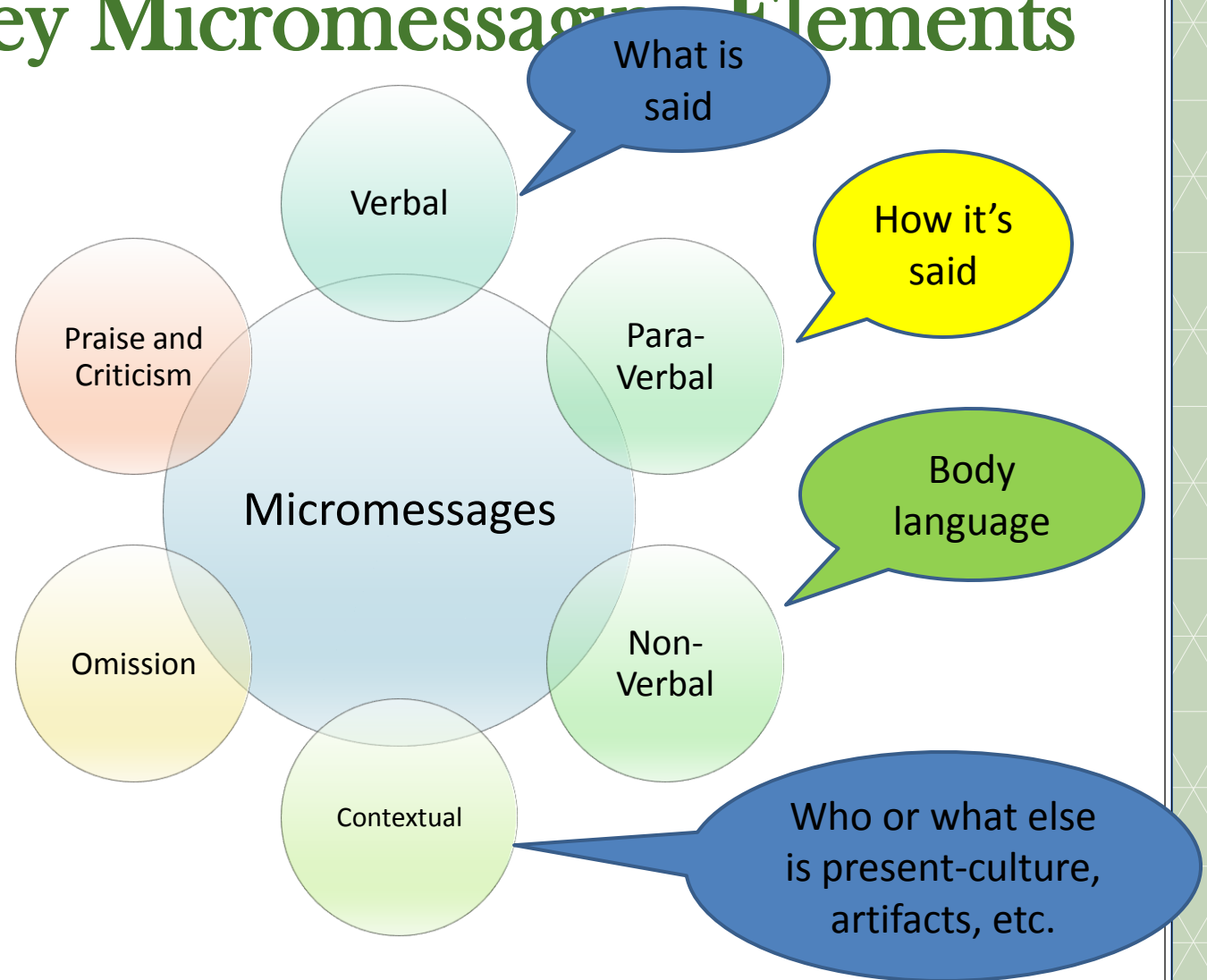
Key Micromessaging Elements





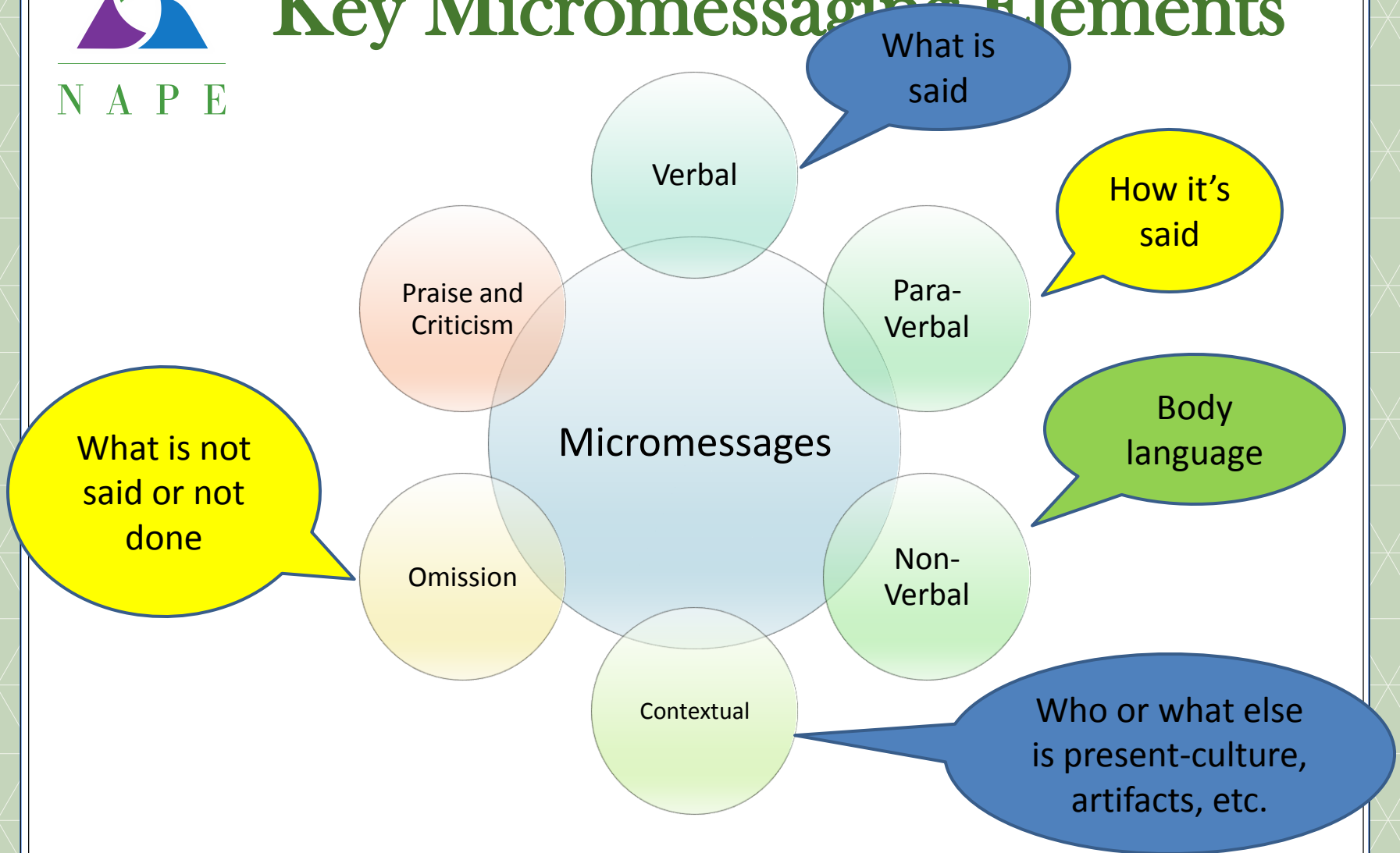
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Key Micromessaging Elements



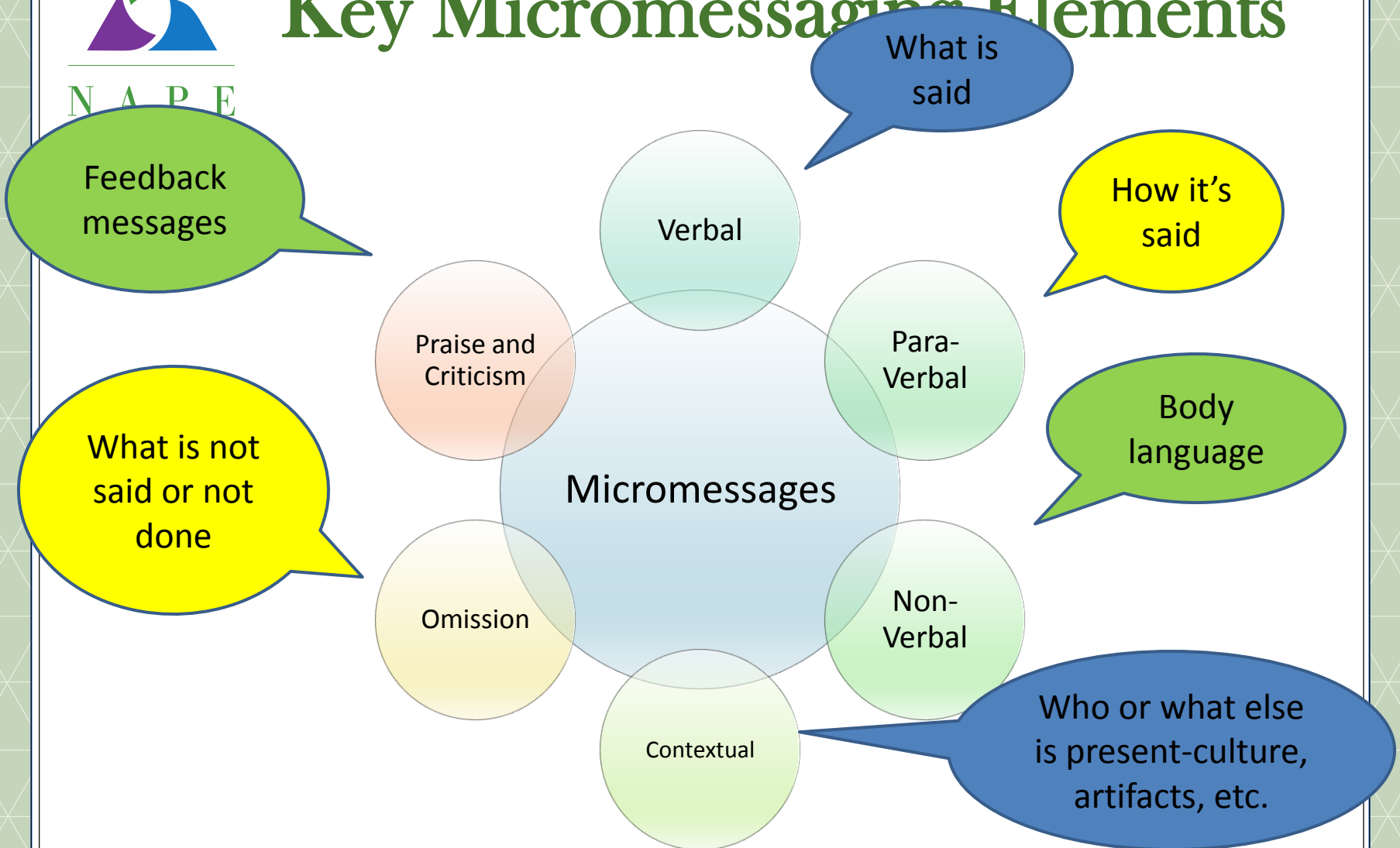


Key Micromessaging Elements





Key Micromessaging Elements





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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	



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Examining the Small

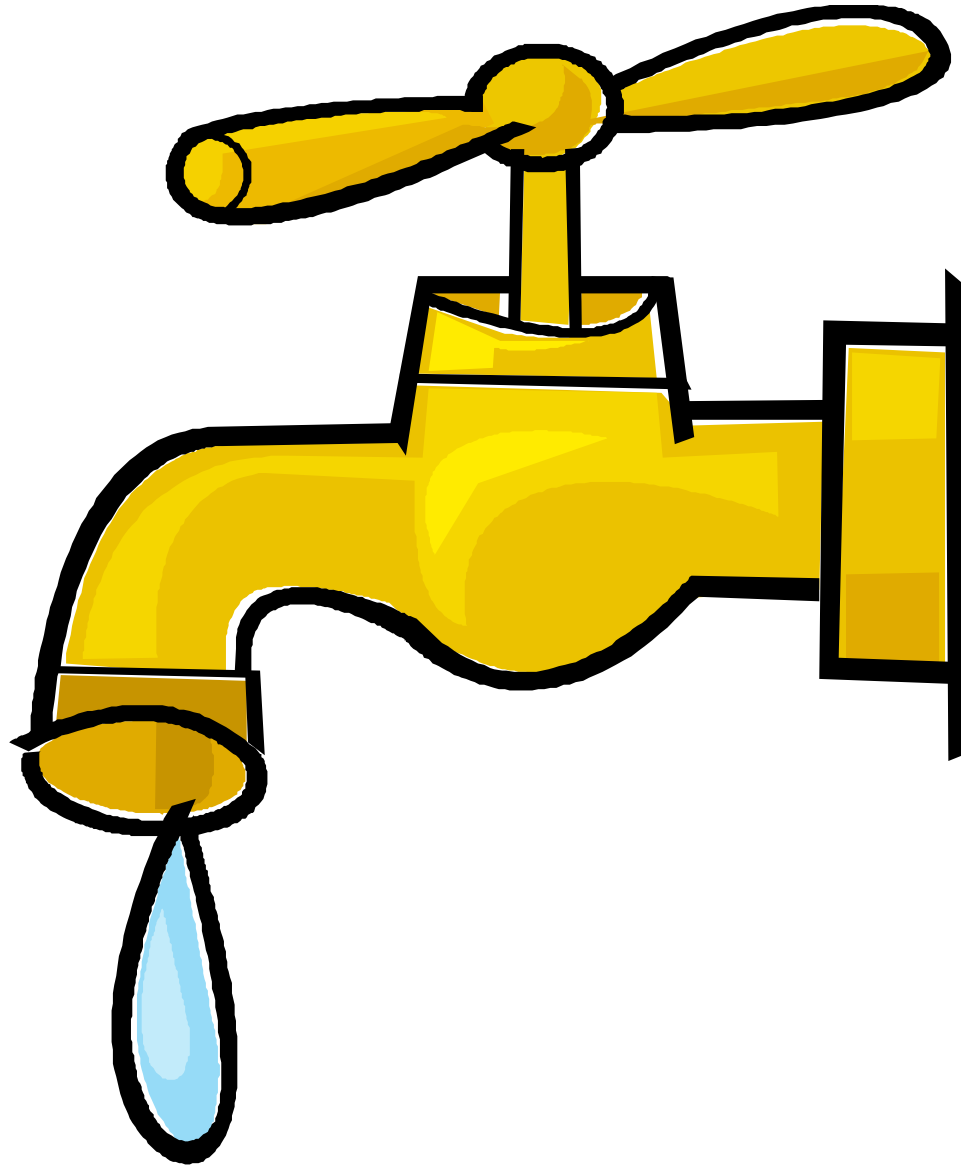
On a piece of paper write a specific incident when you were being...

- 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.





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Exercise

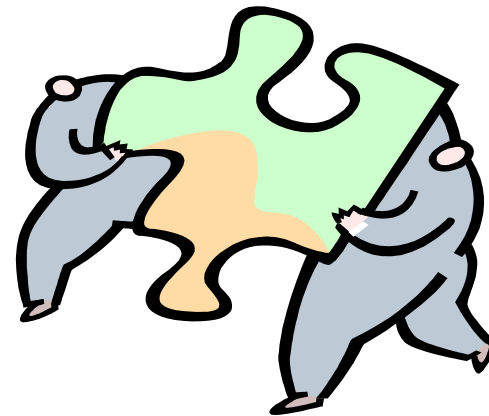


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Be Affirmative!

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)





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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





STEM Equity Teacher Training

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

- Impact of Micro-messages
- Learning climate and environment, bias in society and in classroom
- Social theories of learning, growth versus fixed mindset, self-efficacy. stereotype threat, confidence building, attribution theory
- Transformation of Problems/Project Based Learning (PBL), spatial skills
- Multicultural awareness, positionality, intersectionality
- Career opportunities and how to communicate to students
- Data-driven process for classroom continuous improvement.

Participants are asked to form an ongoing learning community





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Questions and Comments?

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