

Learning Styles of College Instructors and Their Students



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Problem Statement

"Why are my students not able to grasp the material?"

"I just don't get it."

Question:

Do teaching methods and learning styles match?



Project Questions

- What are learning styles of instructors?
- What are learning styles of students?
- Do learning styles of instructors and their students match?



Previous Research on LS

- Educators familiar with LS?
- Mostly on students
- No connections made with instructors
- Models-Felder & Silverman, VAK, VARK, Gregorc, Honey Mumford, Kolb, Dunn & Dunn



Sampling

- Population of all instructors teaching animal science courses at University of Illinois, ~ 50 ($N=20$)
- Undergraduate students in courses taught by participating instructors, ~ 500 ($N=447$)



Methods

- IRB approval
- Consent forms
- Instructor consent
- Instructor permission
- Students consent
- Online assessment



Instrument

- Index of Learning Styles (ILS) by Richard Felder & Barbara Soloman-NCSU (1991)
- Online assessment, 44 questions
- Four dimensions
- Automatic evaluation generated



Example

- <file:///Users/callen/Desktop/Index%20of%20Learning%20Styles%20Questionnaire.html>
- <file:///Users/callen/Desktop/Learning%20Styles%20Scales.html>



4 Dimensions of ILS

- ***Active/Reflective***: How do you prefer to process information?
- ***Sensing/Intuitive***: How do you prefer to take in information?
- ***Visual/Verbal***: How do you prefer information to be presented?
- ***Sequential/Global***: How do you prefer to organize information?



Active vs Reflective

- **Active**-prefers to process information through physical activity, enjoys trying things and working with others
- **Reflective**-prefers to process information by thinking or contemplating quietly, enjoys working alone



Sensing vs Intuitive

- ***Sensing***-prefers sights, sounds, physical sensations, concrete, practical, likes facts and procedures
- ***Intuitive***-prefers insights and thoughts, conceptual, innovative, likes theories and meanings



Visual vs Verbal

- ***Visual***-prefers to receive information by graphs, charts, diagrams, pictures
- ***Verbal***-prefers to receive information by spoken or written explanation



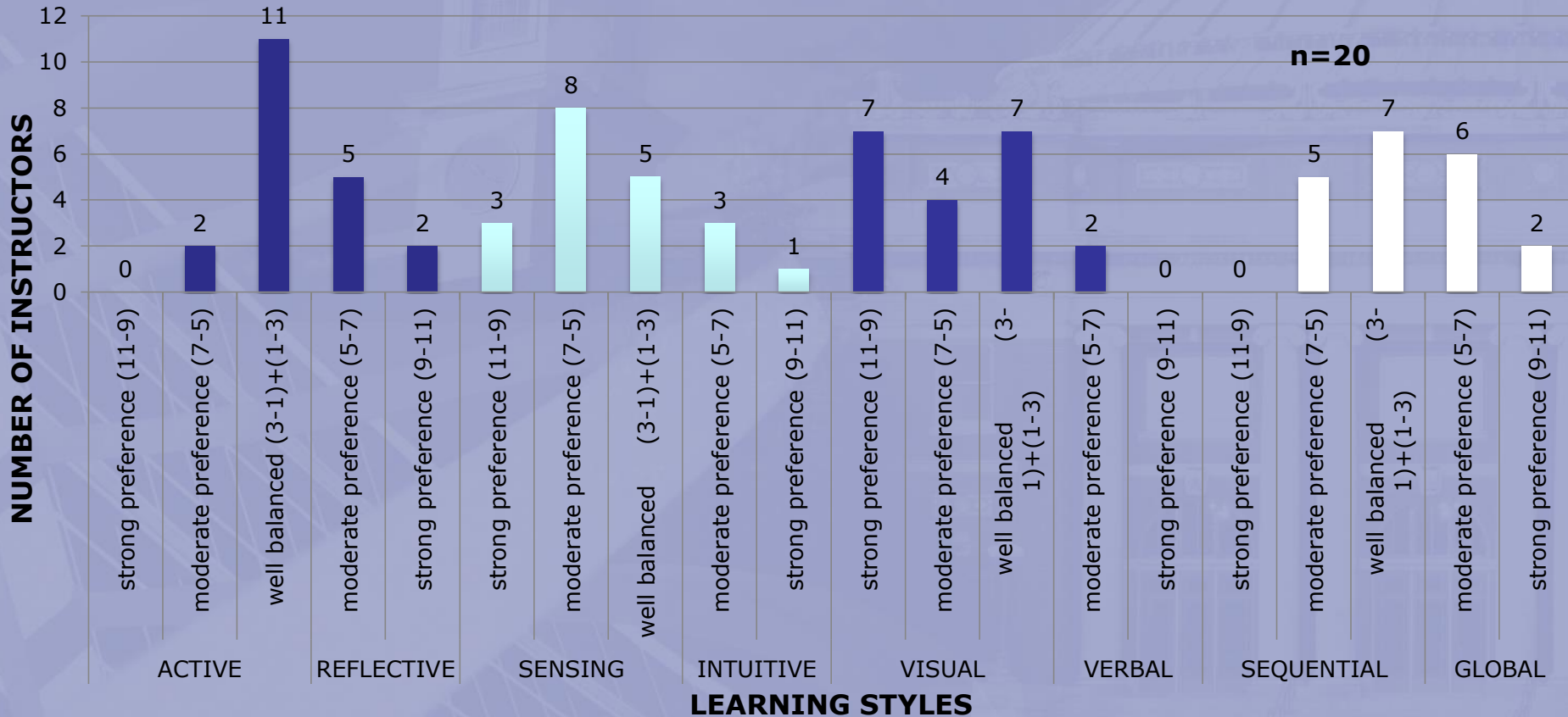
Sequential vs Global

- ***Sequential***-prefers to progress in logical steps, linear, orderly, learns in small increments
- ***Global***-prefers to see the “big picture”, holistic, systems, learns in large leaps



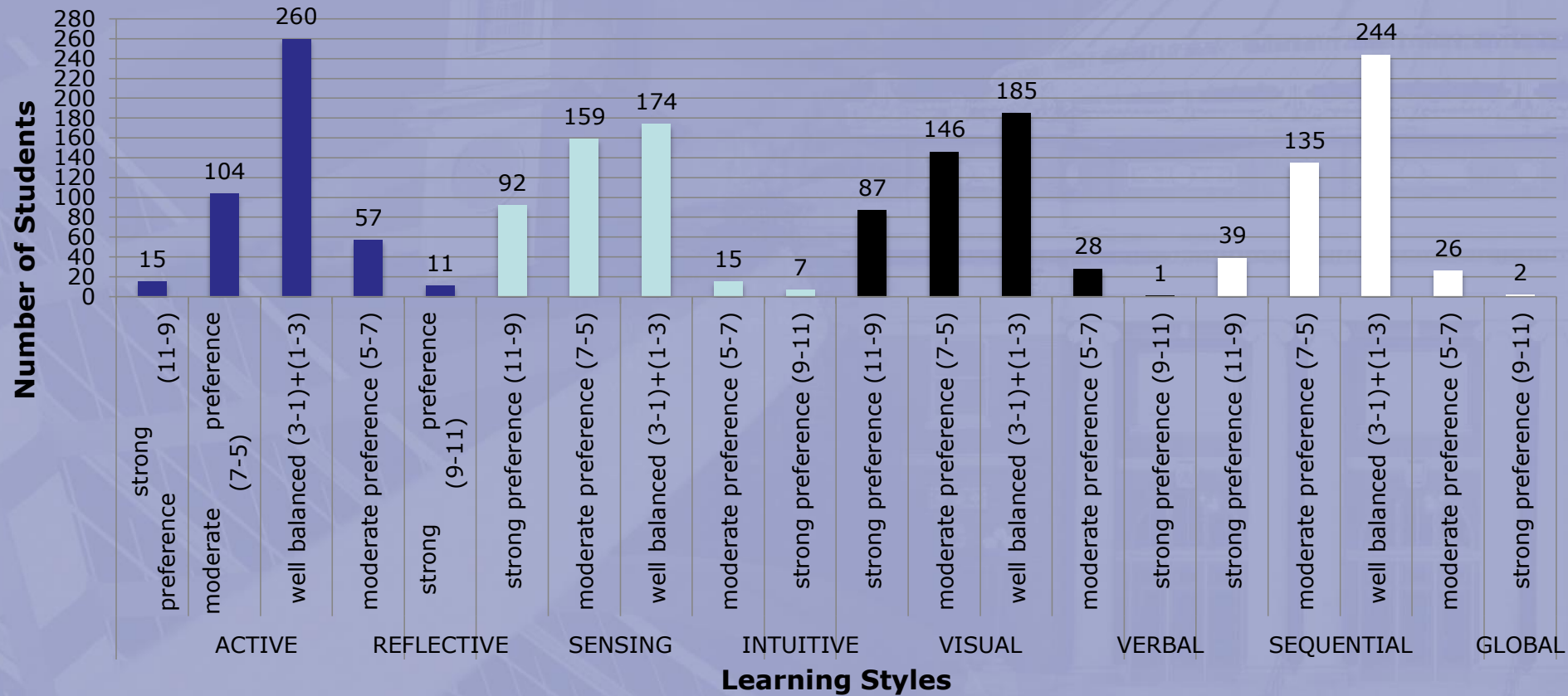
LS OF INSTRUCTORS

LEARNING STYLES OF INSTRUCTORS



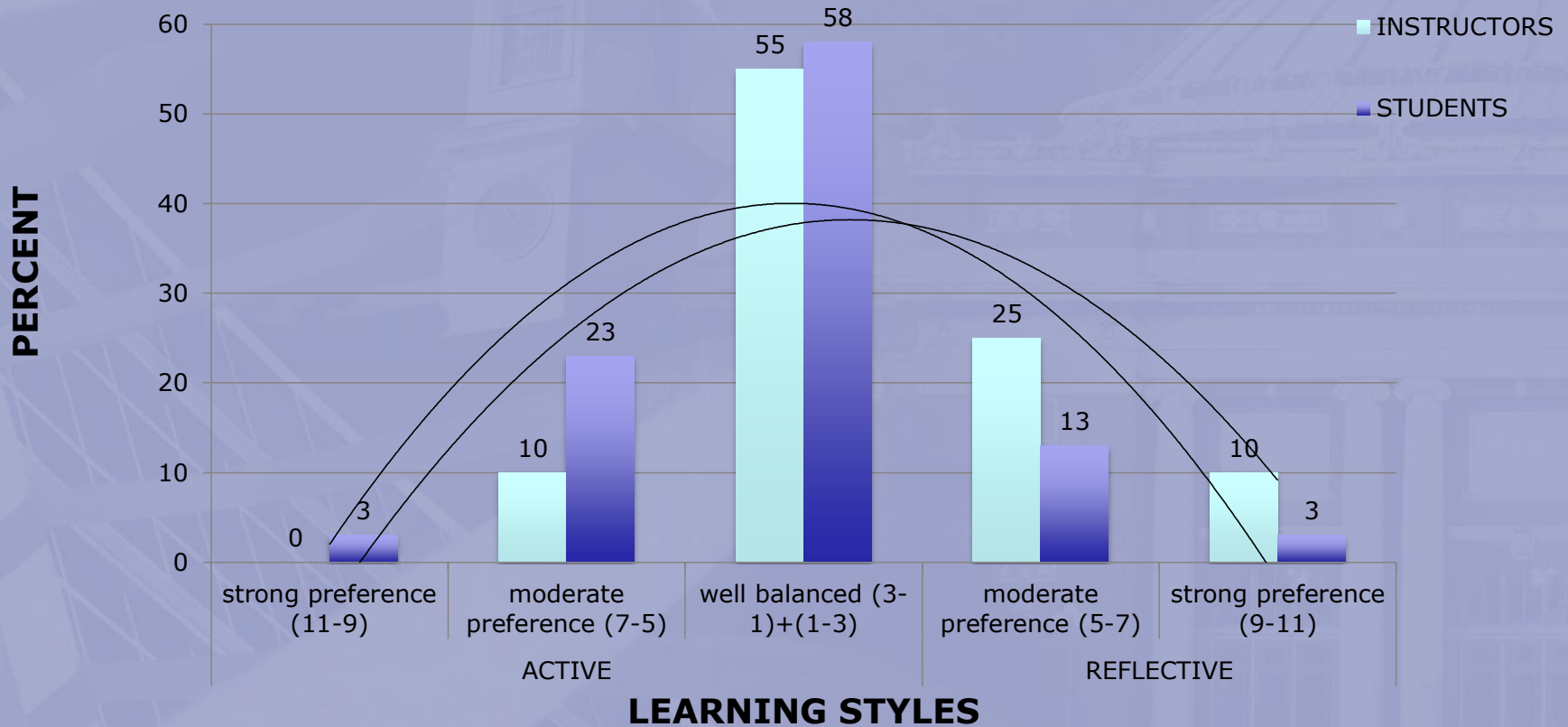
LS OF STUDENTS

LEARNING STYLES OF STUDENTS

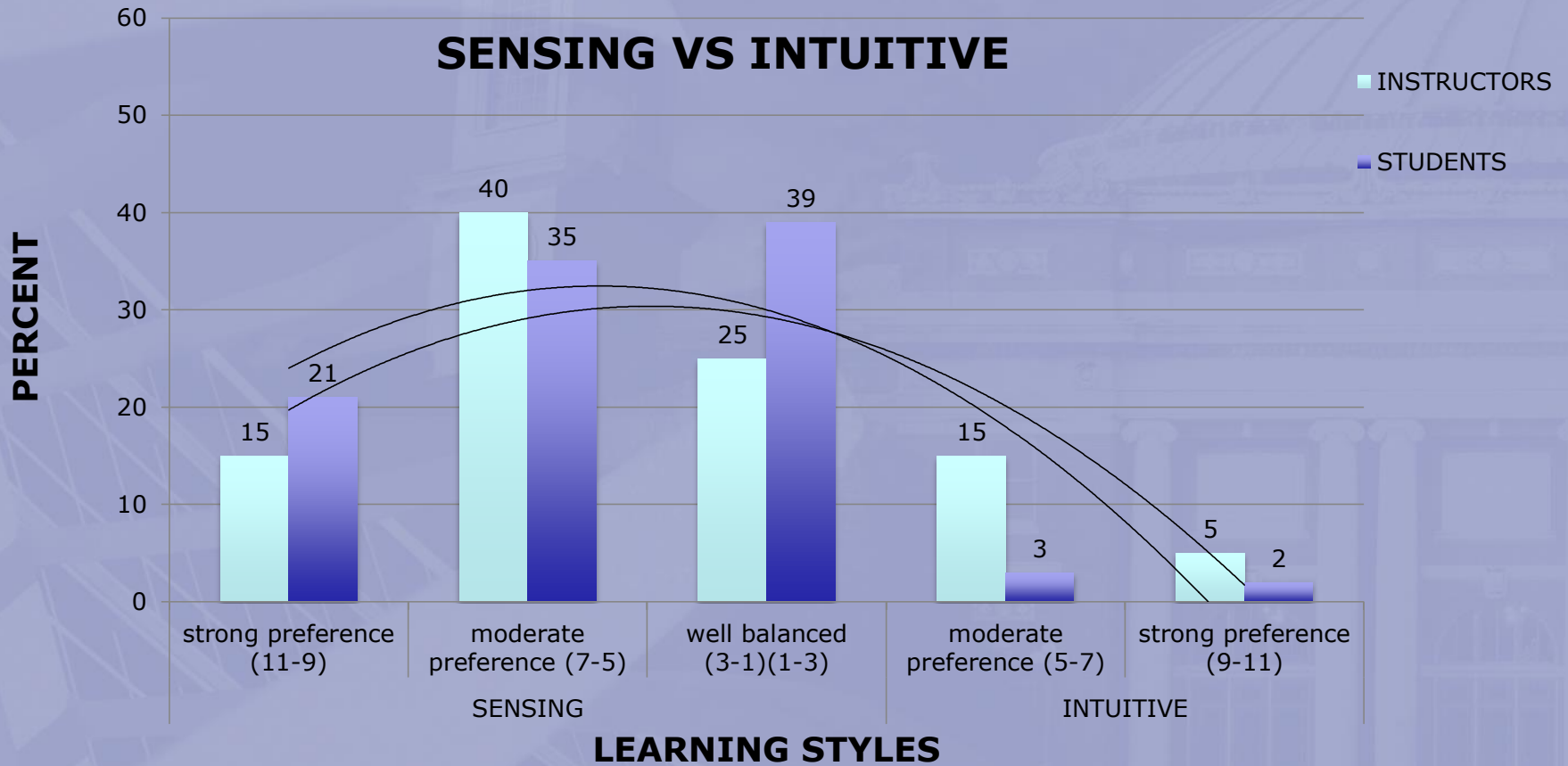


ACTIVE / REFLECTIVE

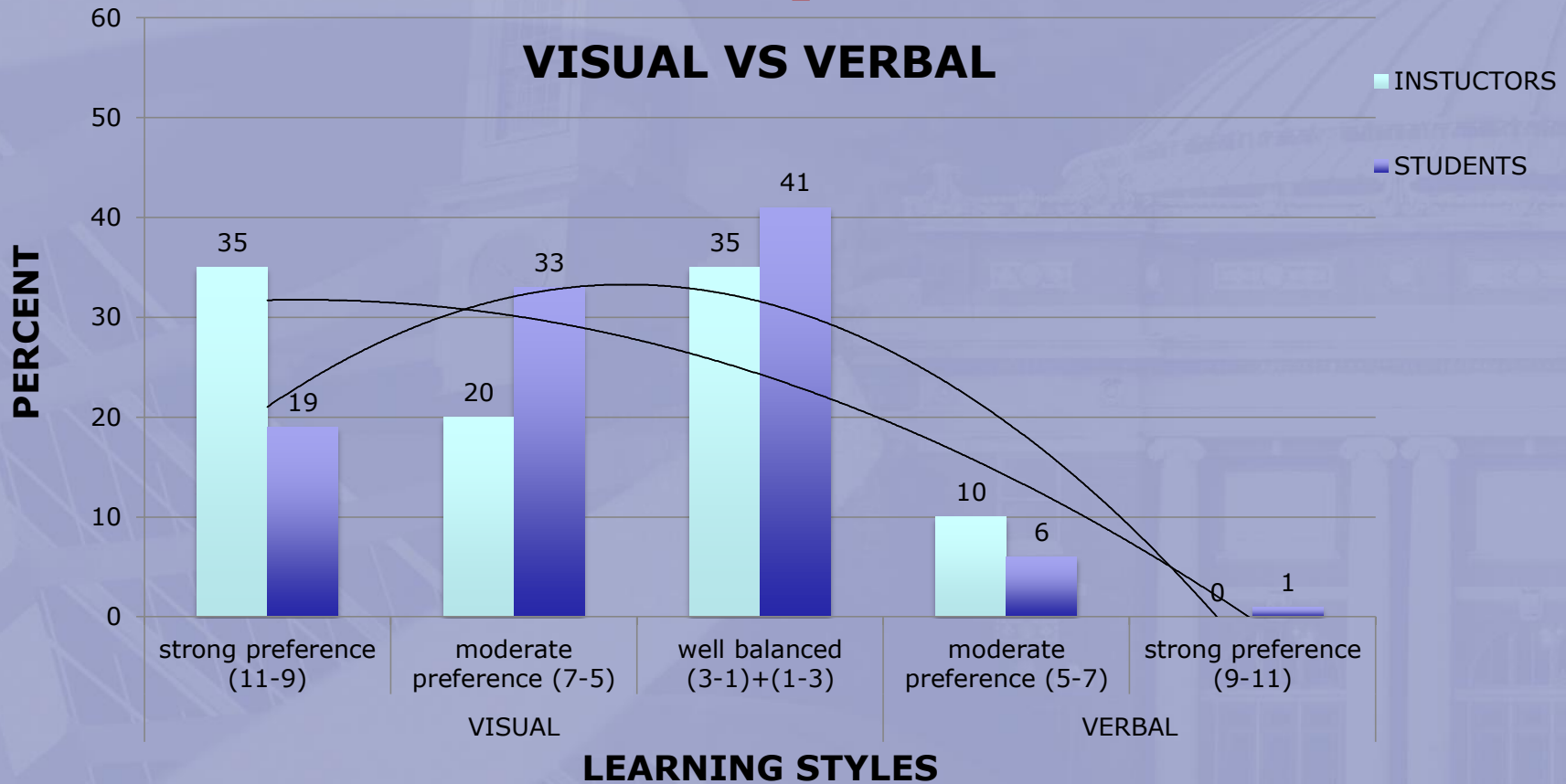
ACTIVE VS REFLECTIVE



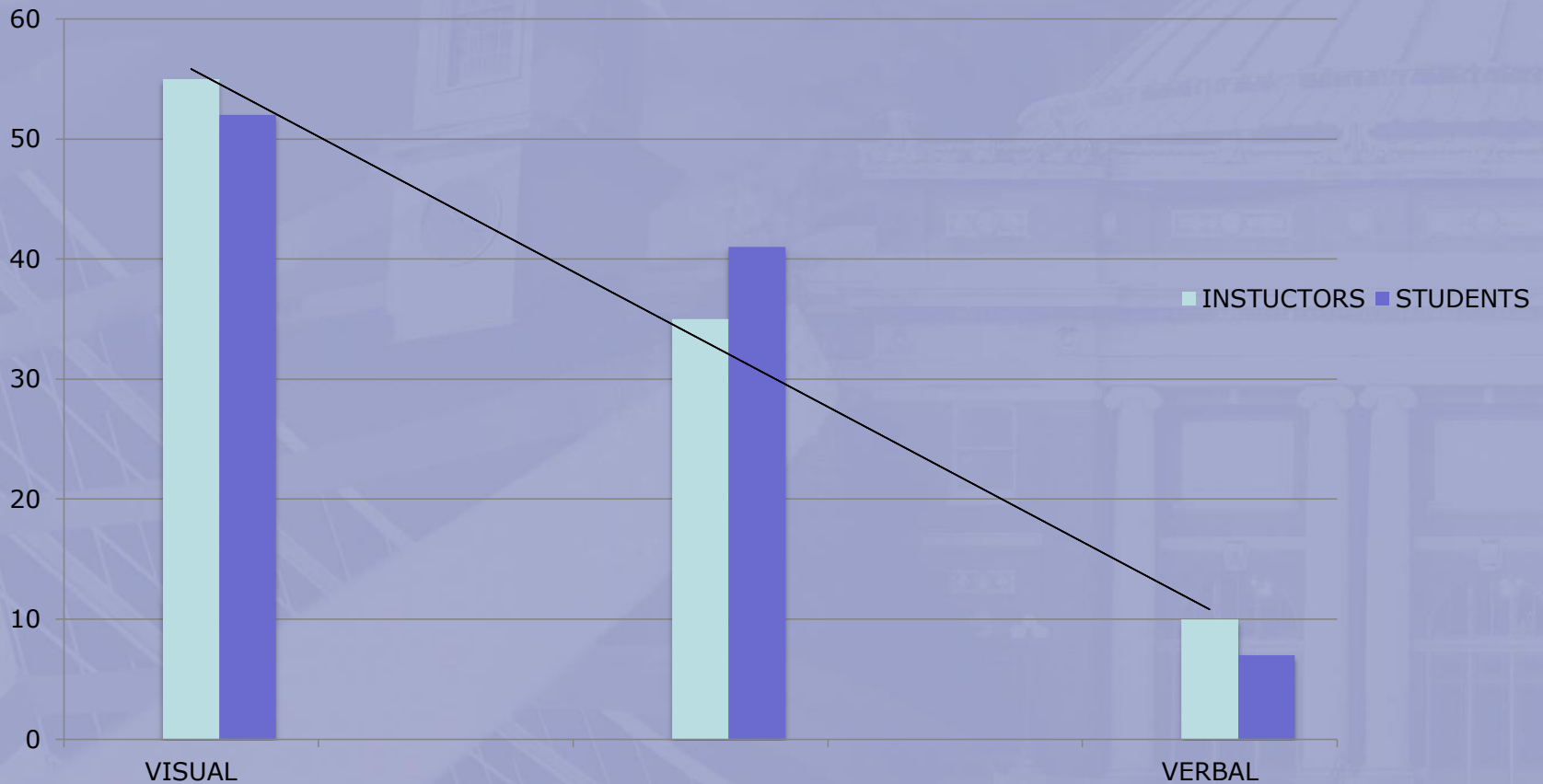
SENSING/INTUITIVE



VISUAL/VERBAL

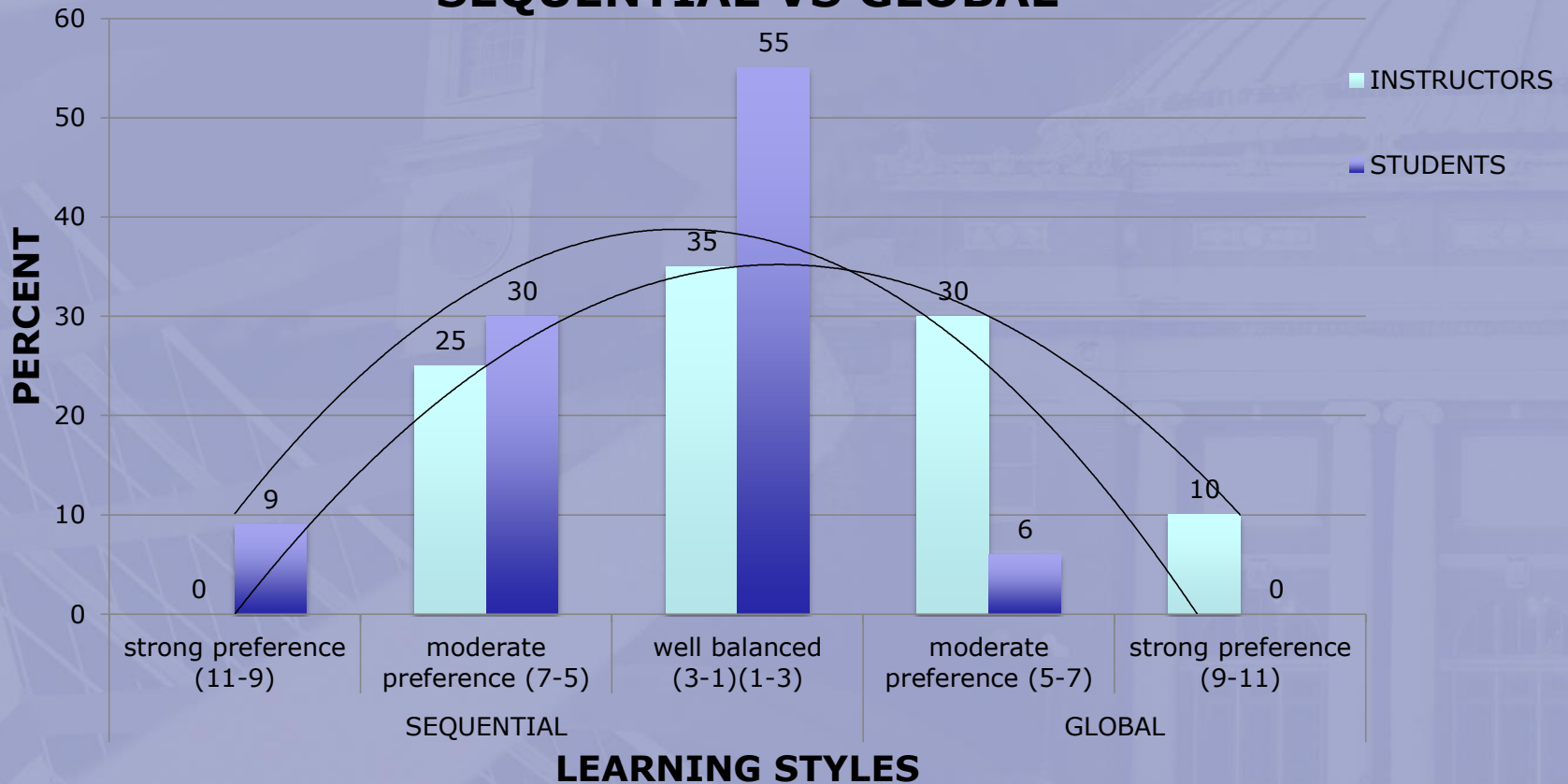


Visual/Verbal



SEQUENTIAL/GLOBAL

SEQUENTIAL VS GLOBAL



Conclusions

- **Active/Reflective**->50% both well balanced, instructors more reflective, students more active
- **Sensing/Intuitive**-both instructors, students higher sensing
- **Visual/Verbal**-both higher visual than verbal or well balanced
- **Sequential/Global**-both well balanced, instructors higher global, students higher sequential



Take-Home Message

- Students depend upon steps (seq)
- Emphasizes students benefit from engaging teaching methods and interactive environments (active)



What can instructors do?

- Know own LS
- Be aware of students' LS
- Vary teaching methods
- Review courses often
- Alter courses to address LS



What Now?

- Assess students' LS
- Assess instructors' LS
- Offer information on LS
- Address LS in courses
- Be trained in varied teaching methods
- Alter courses to address LS



Questions or Comments?

