

Feedbacker: A peer feedback management system for presentation instruction

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Overview

- Background: Peer Feedback
- Peer Feedback Systems
- Feedbacker
- Student Evaluation
- Q/A
- Practicum
- Discussion

Peer Feedback

- Feedback - Information given to learner about their performance, intending to help learner sustain or improve performance
 - Formative
- Roots (?): Peer Review (from 17th C.)
- In language teaching
 - Zamel, 1973
 - Mostly in writing instruction

Benefits of PF

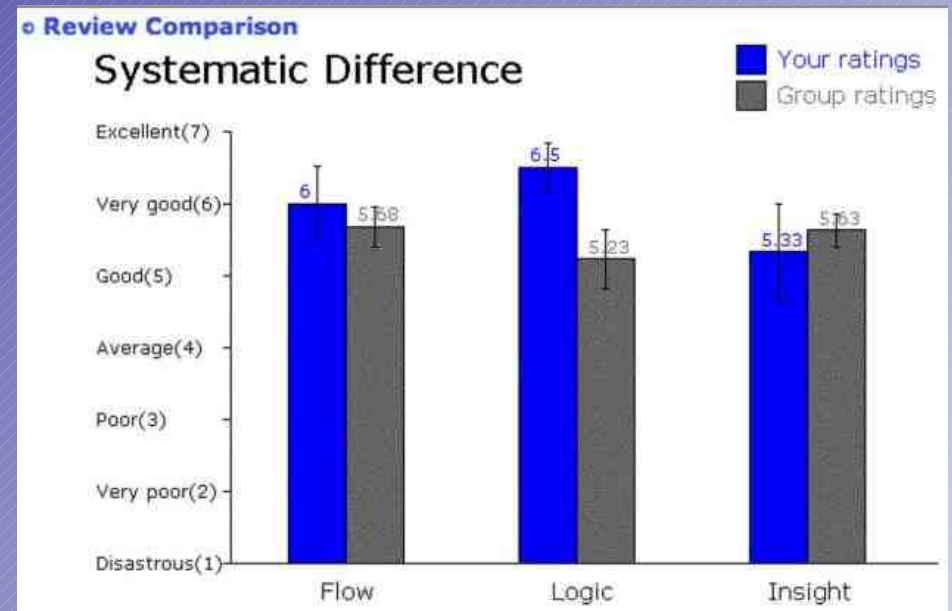
- Promotes critical thinking (Orsmond, et al. 2000)
- Encourages higher audience awareness (Yeh, et al. 2008)
- Potentially more informative (Bartels 2003; Tsui and Ng 2000)
- Complements teacher's feedback (Stefani 1998)

Criticisms of PF

- Peers (i.e., students) lack expertise.
- Students hesitant to criticize peers.
- Difficult to ensure anonymity
- Logistically challenging
- See Liu and Carless (2006)

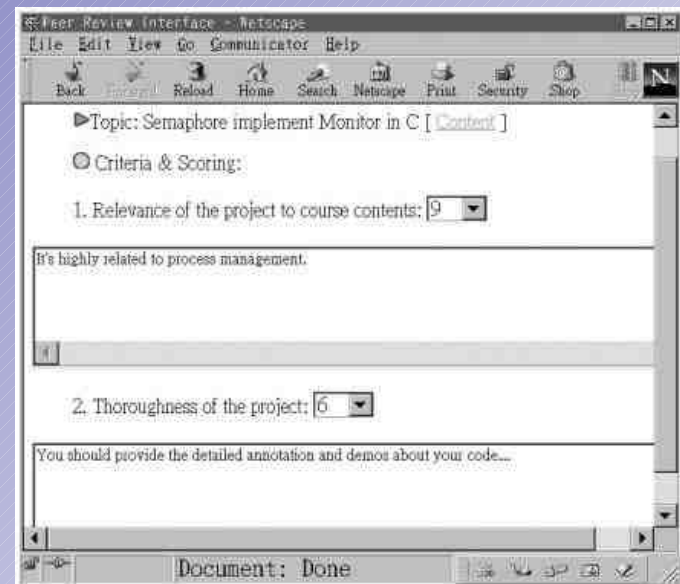
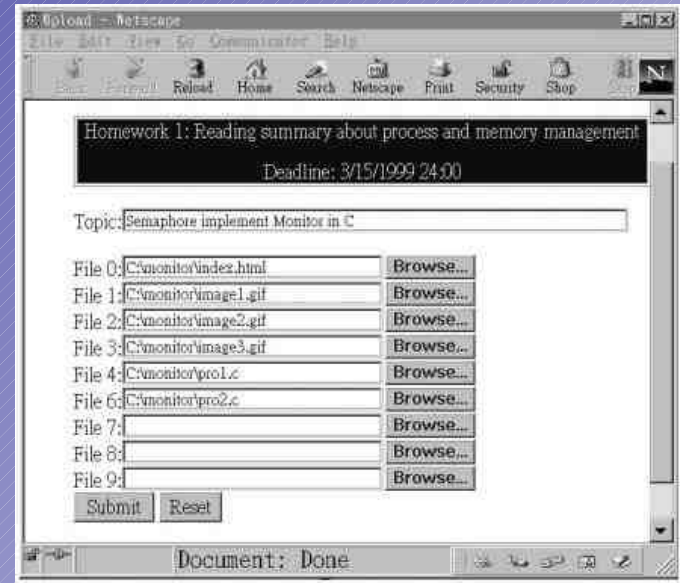
Computer-based PF Systems

- SWoRD (Cho and Schunn, 2007)
 - Scaffolded Writing and Rewriting in the Discipline
 - Reciprocal peer review; integrates feedback on feedback
 - Multiple peer reviews more effective than single expert (i.e., instructor) reviews.



Computer-based PF Systems

- NetPeas (Lin et al. 2001)
 - Networked Peer Assessment System
 - Models peer review system for academic publication
 - Most effective for certain types of learners
- See Yeh et al. 2008 for others and comparisons



My Problem: PF for Oral Presentations

- Course: Oral Presentation
 - 10-20 students per section
 - Several presentations per term
- System Requirements
 - Logistically easy
 - Teacher
 - Students
 - Anonymity
 - Permanence
 - Flexibility in measure design

Some Early Solutions

- Paper-based system
 - Collect → Collate → Record → Redistribute
 - Disadvantages
 - Tedious
 - Difficult to keep records
 - Anonymity endangered
- E-mail-based system
 - Collect → Collate → Record → Redistribute
 - Disadvantages
 - Still tedious

Computer-based Solutions

- Peer Feedback systems
 - Some not flexible in measure design
 - Some explicitly for writing
 - Most not publicly available

Computer-based Solutions

- Moodle: “Workshop” module
 - Flexible teacher/peer/self assessment system
 - Requires Moodle installation



Computer-based Solutions

- Blogging tools (e.g., Wordpress, Blogger)
 - Sophisticated commenting and polling features
 - Difficult to associate “presentations” with comments and polls
 - Setting up user rights and permissions complicated



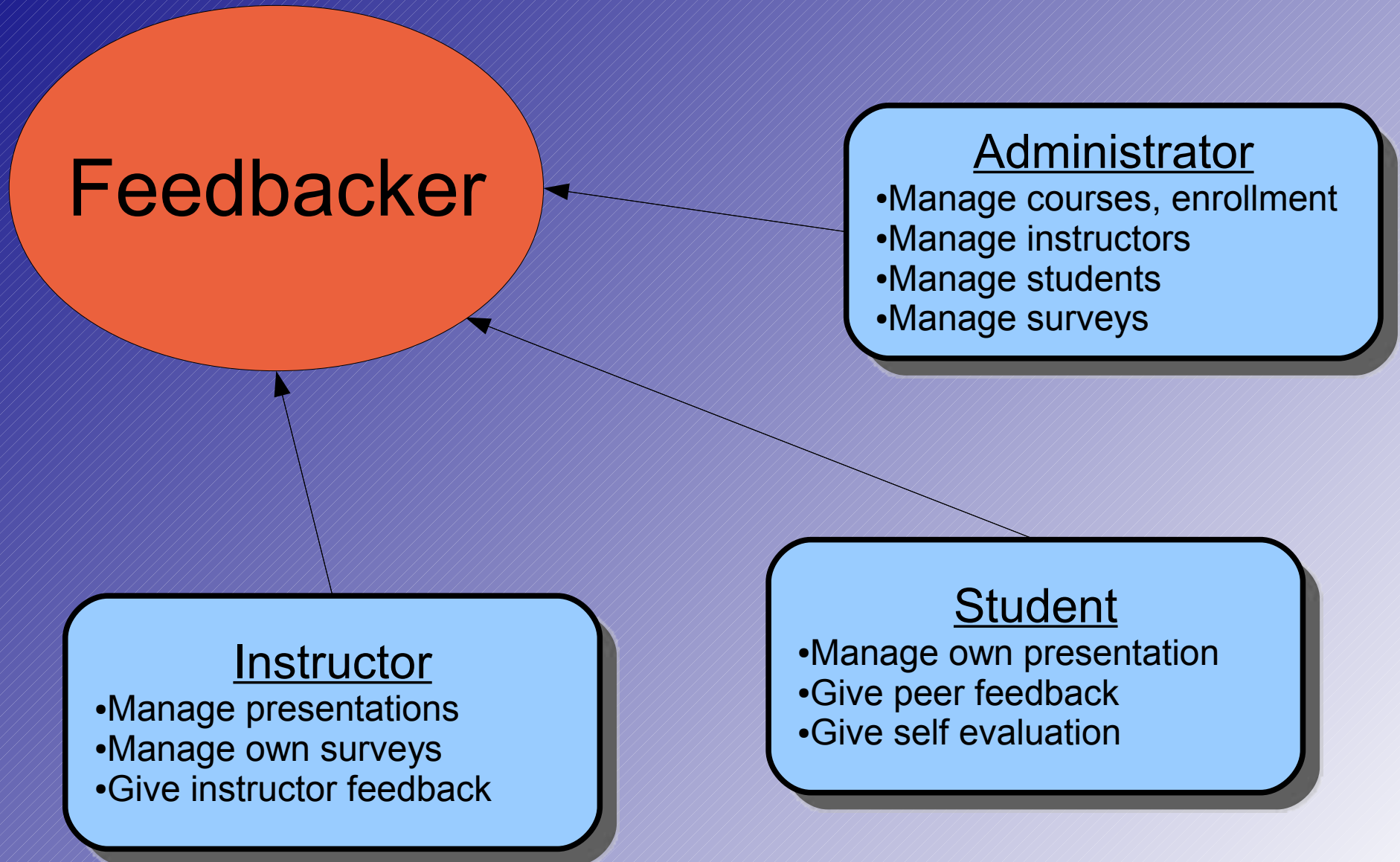
My Solution: Feedbacker

- Basic Design
 - Multi-role access: Administrator, Instructor, Student
 - Allows use by multiple instructors in multiple courses
 - Allows instructors to define feedback areas
 - Preserves anonymity
 - Allows instructor a quick overview of a student's presentations and feedback.
 - Allows student a quick overview of their own presentations and feedback they must give to others.

Feedbacker

- Technical Stuff (for techno-nerds)
 - Web-server based assessment system (system independent)
 - CGI with Perl scripts
 - XML database (using libxslt) in human-readable format
 - UTF-8 encoding

Feedbacker Roles



Feedbacker Demonstration

Feedbacker Web Site - Login - Mozilla Firefox

ファイル(F) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(T) ヘルプ(H)

http://feedbacker.local/index.html

Feedbacker Web Site

Please enter your login information:

Login Name:

Password:

完了

Feedbacker web site - Administrator's Page - Mozilla Firefox

ファイル(F) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(T) ヘルプ(H)

http://feedbacker.local/cgi-bin/adm

Home Administrator: Ralph Rose

Administrator Home Page

What do you want to do?

Feedbacker web site - Instructor's Page - Mozilla Firefox

ファイル(F) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(T) ヘルプ(H)

http://feedbacker.local/cgi-bin/inst

Home Return to section Instructor: Barack Obama

Oral Presentation Mon 3

Academic Year: 2009-10 Semester: 1

| Date | Name | Title | Self | Teacher | Peer | |
|-------|---------------|------------------------------------|------|---------|------|--|
| 03/20 | Tarou Toudai | Miyajima: A place of beauty | yes | yes | 3 | <input type="button" value="Show..."/> |
| 03/20 | Hanako Toudai | Do you know "Sato no Yu"? | yes | yes | 2 | <input type="button" value="Show..."/> |
| 03/20 | Willy Waseda | Let me introduce my brother | yes | no | 3 | <input type="button" value="Show..."/> |
| 03/20 | Winnie Waseda | A very unique high school teacher! | yes | yes | 2 | <input type="button" value="Show..."/> |

完了

Feedbacker web site - Student's Page - Mozilla Firefox

ファイル(F) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(T) ヘルプ(H)

http://feedbacker.local/cgi-bin/stu

Home Student: Willy Waseda

Oral Presentation Mon 3

Academic Year: 2009-10 Semester: 1

My Presentations

| Date | Title | Self | Teacher | Peer | |
|-------|-----------------------------|------|---------|------|--|
| 03/20 | Let me introduce my brother | yes | no | 3 | <input type="button" value="Show..."/> |
| 04/17 | Not yet decided | no | no | 0 | <input type="button" value="Show..."/> |

Feedback for my classmates' presentations

| Date | Speaker | Title | Feedback |
|-------|---------------|------------------------------------|---|
| 03/20 | Tarou Toudai | Miyajima: A place of beauty | 03/24 |
| 03/20 | Hanako Toudai | Do you know "Sato no Yu"? | <input type="button" value="Give feedback..."/> |
| 03/20 | Winnie Waseda | A very unique high school teacher! | <input type="button" value="Give feedback..."/> |

完了

Feedbacker Questionnaire

- Goals
 - To determine students' feelings about peer feedback.
 - To determine students' feelings about using Feedbacker.
 - To determine how Feedbacker is most effective for different types of students.

Thinking Styles

- Theory of Mental Government (Sternberg, 1998)
 - Functions
 - Executive: solve problems by following existing rules
 - Legislative: create new rules to solve problems
 - Judicial: evaluate and critique rule systems
 - People have a thinking style “profile”.
 - Preferences may vary with respect to task.

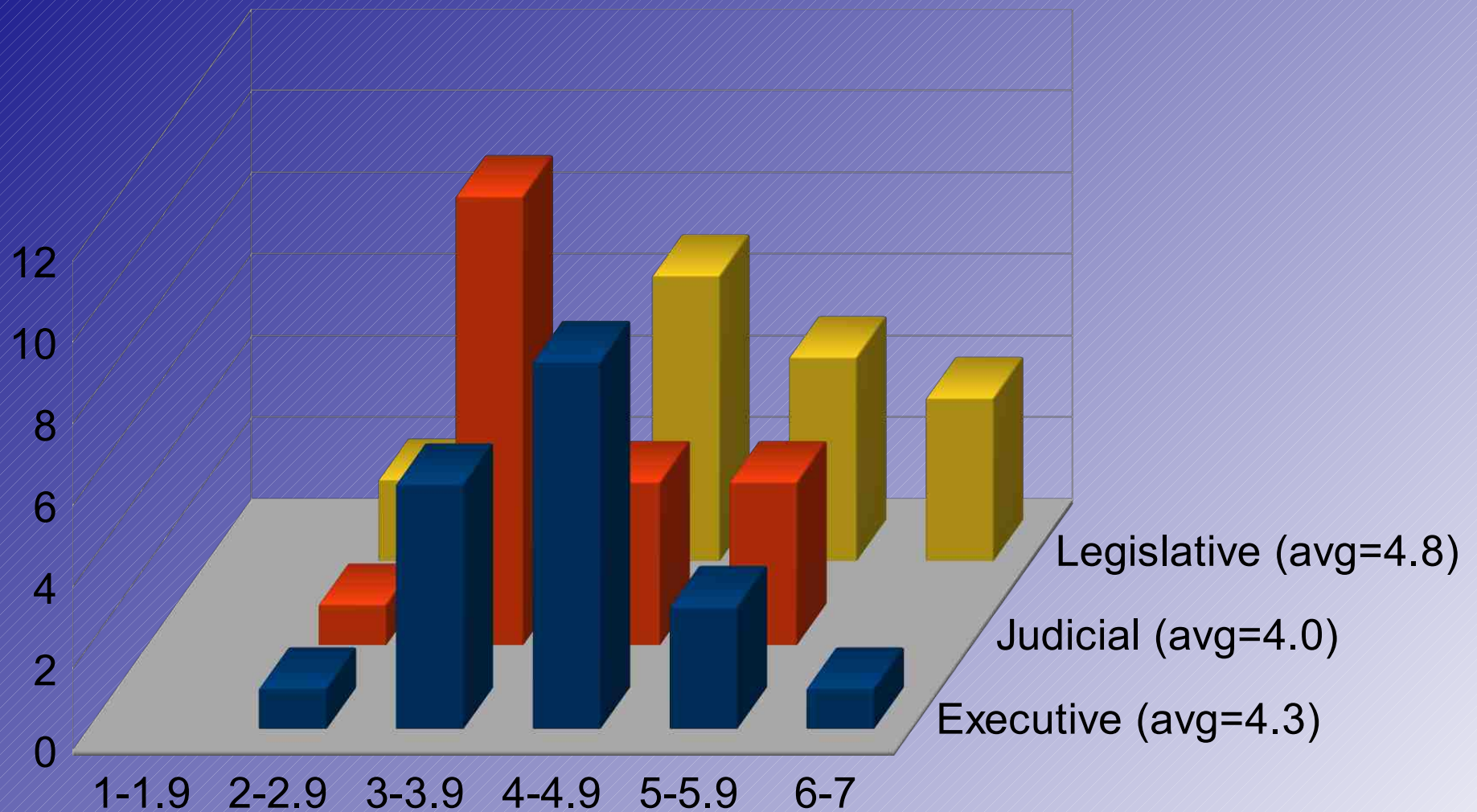
Thinking Styles and Feedback

- Predictions
 - High executive students should benefit more than low executive students from feedback they receive (e.g., Lin et al. 2001).
 - High judicial students should benefit more than low judicial students from giving feedback.
 - High legislative students and low legislative students shouldn't differ from either giving or receiving feedback.

Methods

- Participants: n=20 EFL students (L1=Japanese) enrolled in Oral Presentation course at Tokyo University
- Thinking Styles Inventory (Sternberg and Wagner 1992) was administered in Japanese at start of course.
- During course, students
 - prepared and gave 4 presentations.
 - gave feedback via Feedbacker to peers.
- Questionnaire about feedback and Feedbacker was administered at end of course.

Thinking Styles Results

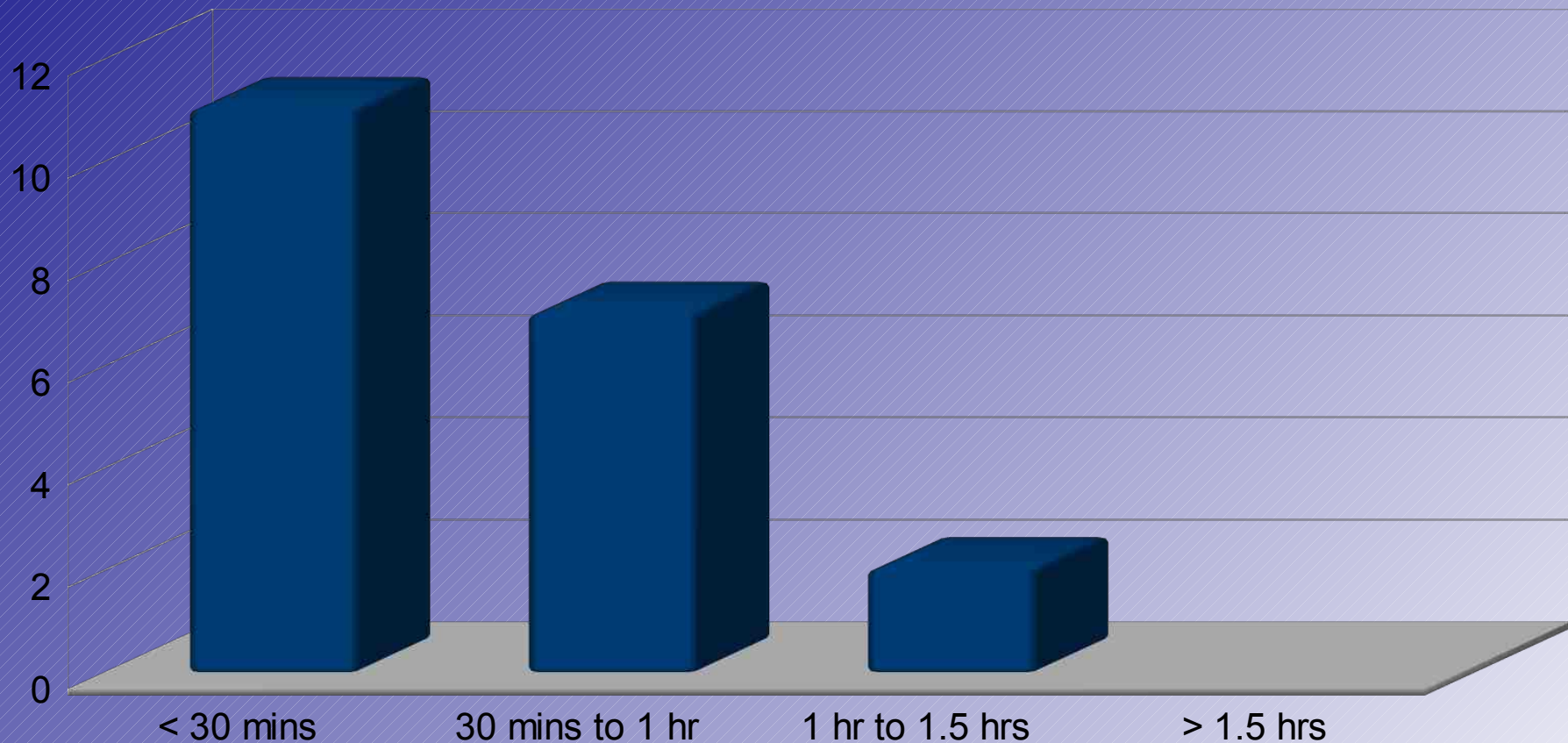


Giving Peer Feedback

- How was the quality? Unique?
- Was it reflective?
- How much did students give?

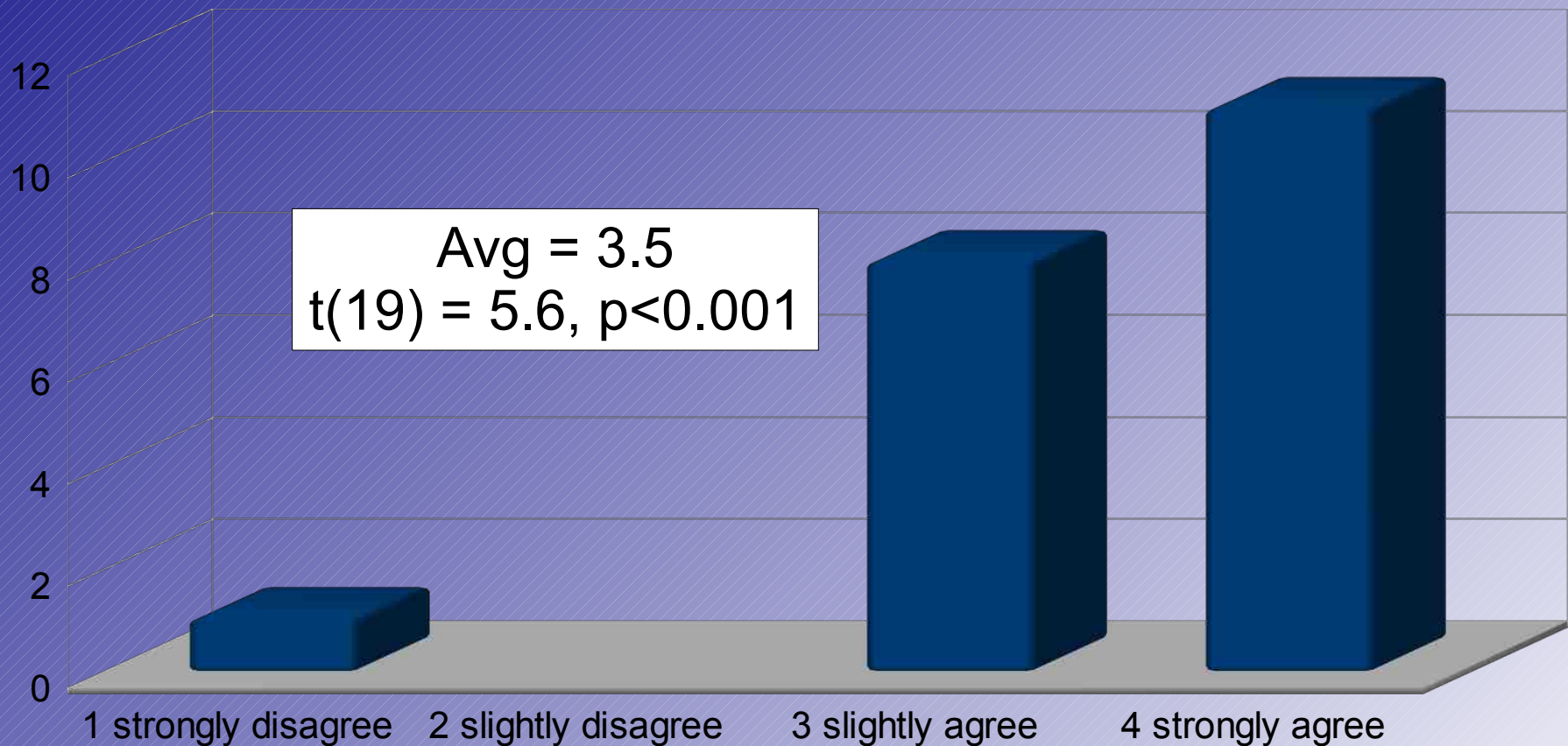
Giving Peer Feedback

"How long did it take to input feedback for your classmates after each presentation?"



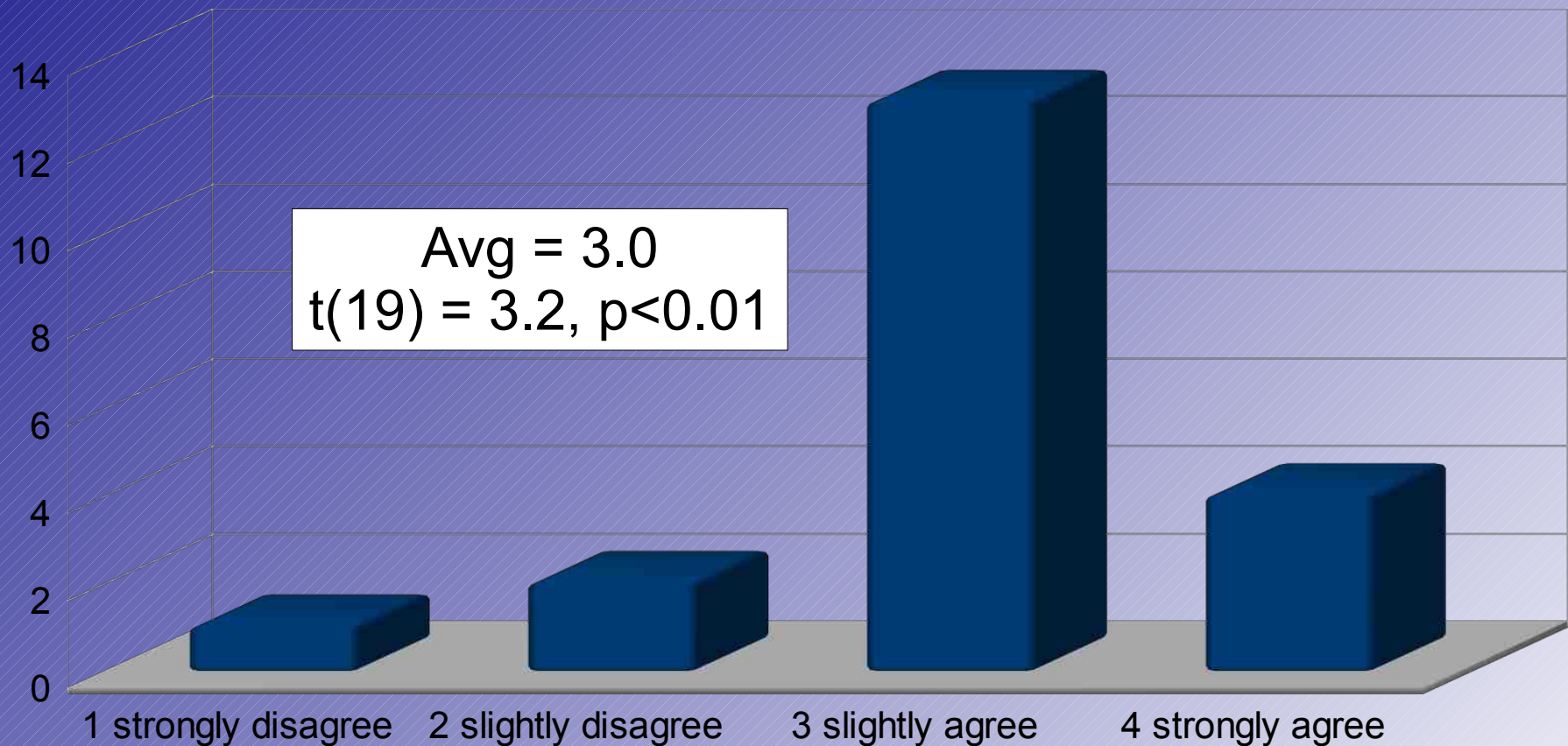
Giving Peer Feedback

"I gave unique feedback to each of my classmates."
(i.e., I didn't just copy and paste the same feedback for everyone)



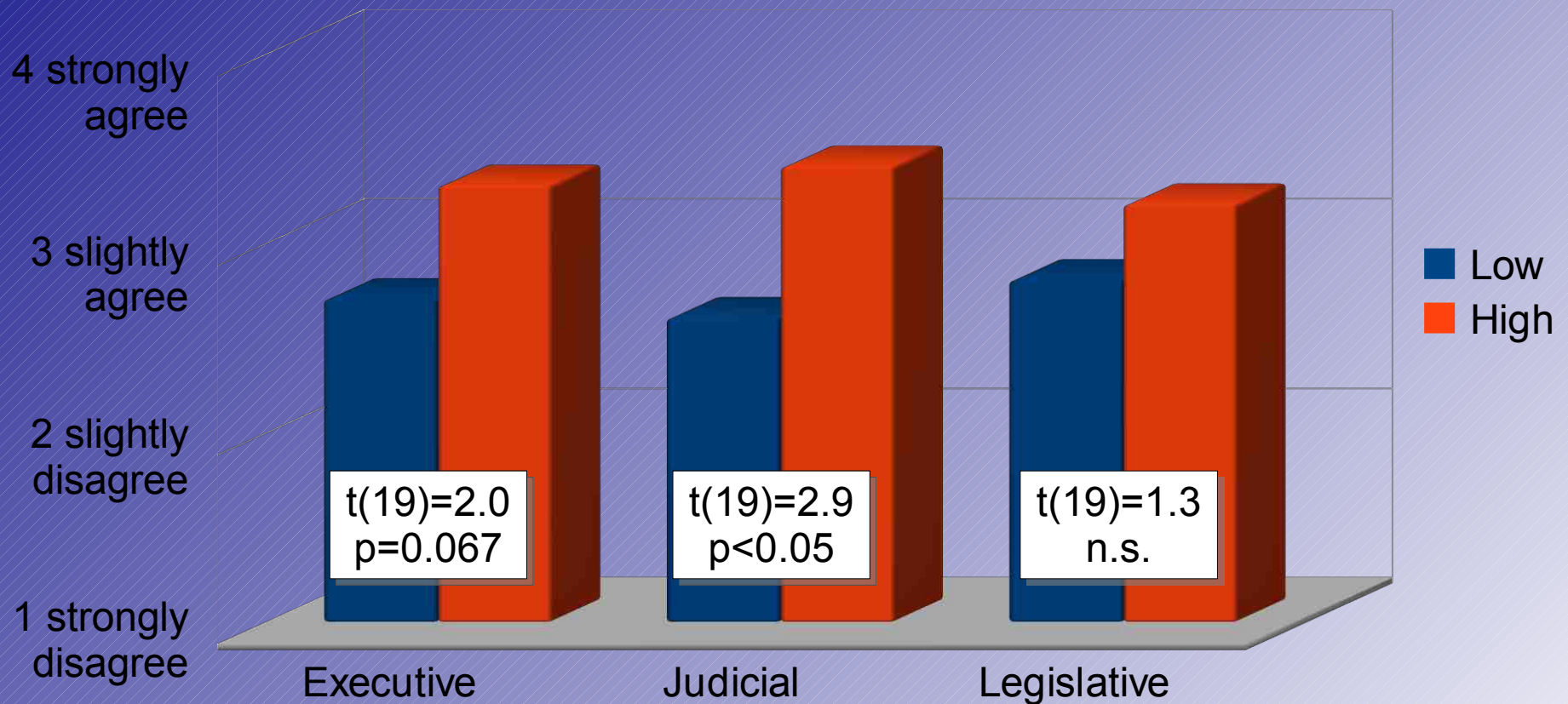
Giving Peer Feedback

"Giving feedback to my classmates made me think more about my own presentation skills."



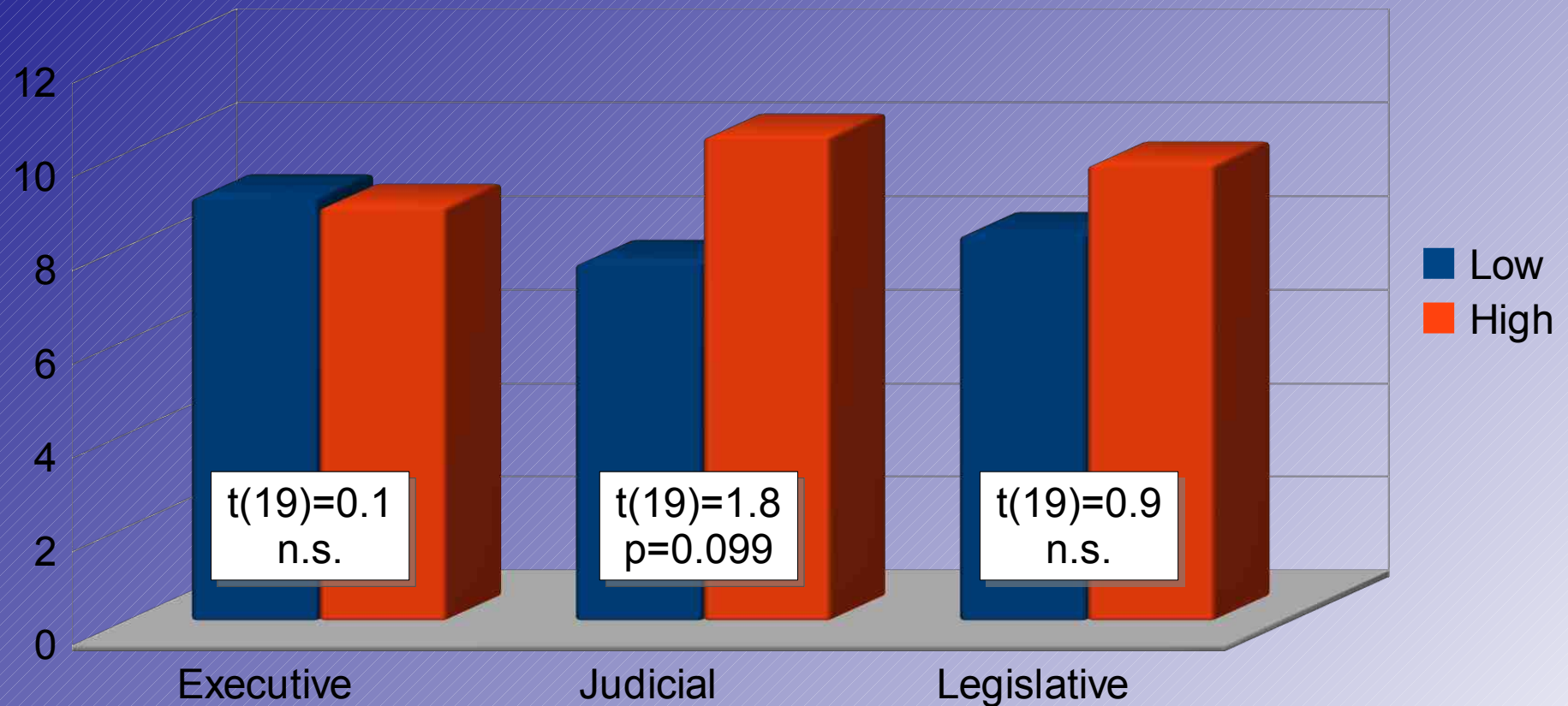
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Giving Peer Feedback: Quantity

Mean length of feedback given to peers
(in words per peer)



Giving Peer Feedback: Summary

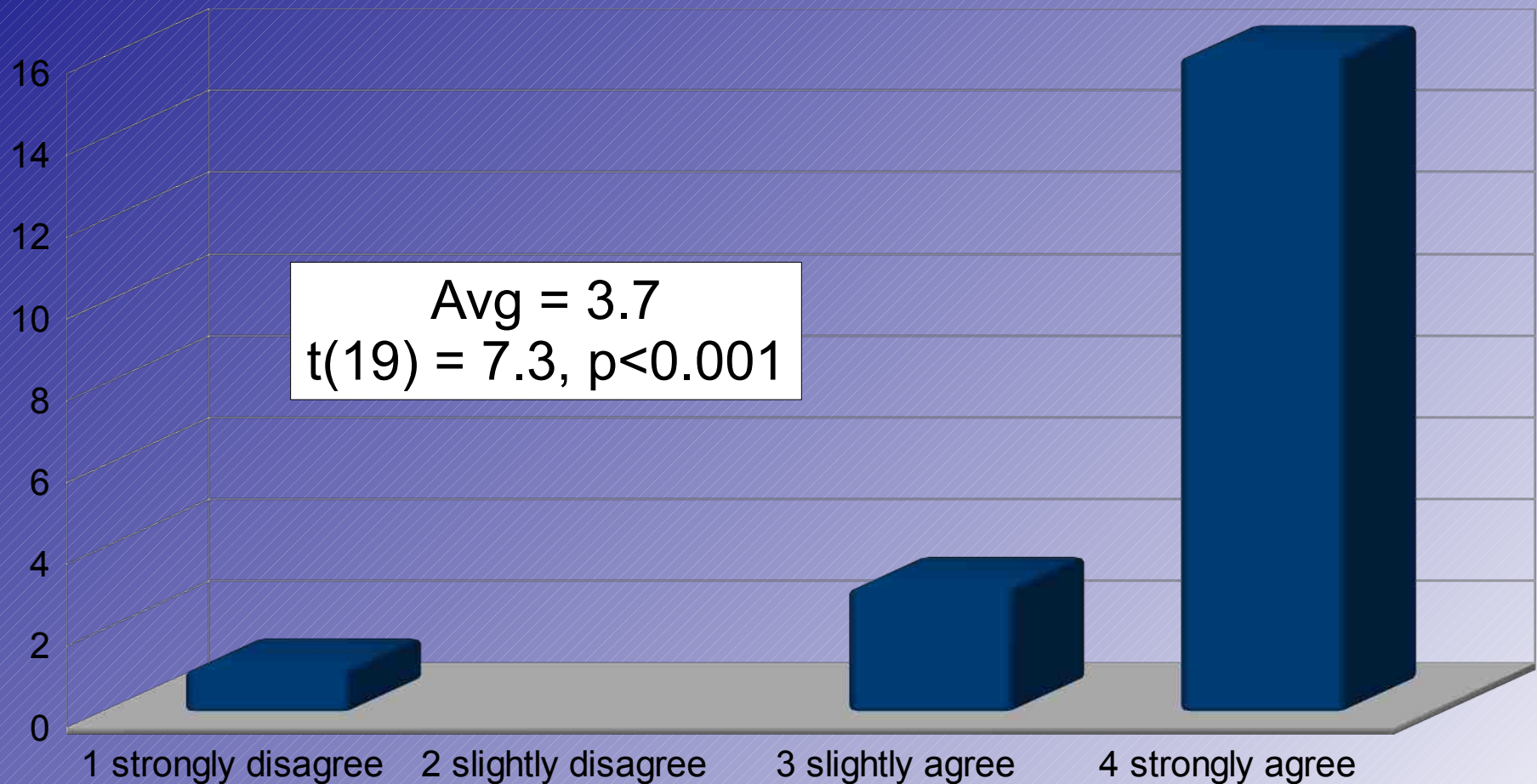
- HiJd students used feedback process for self-reflection. HiEx students also, but less so.
- HiJd students give more feedback than LoJd.
 - Suits their judicial style.

Getting and Using Feedback

- Are students reading feedback?
- Are students using feedback?
- Do students feel it is productive?
- How much do students improve?

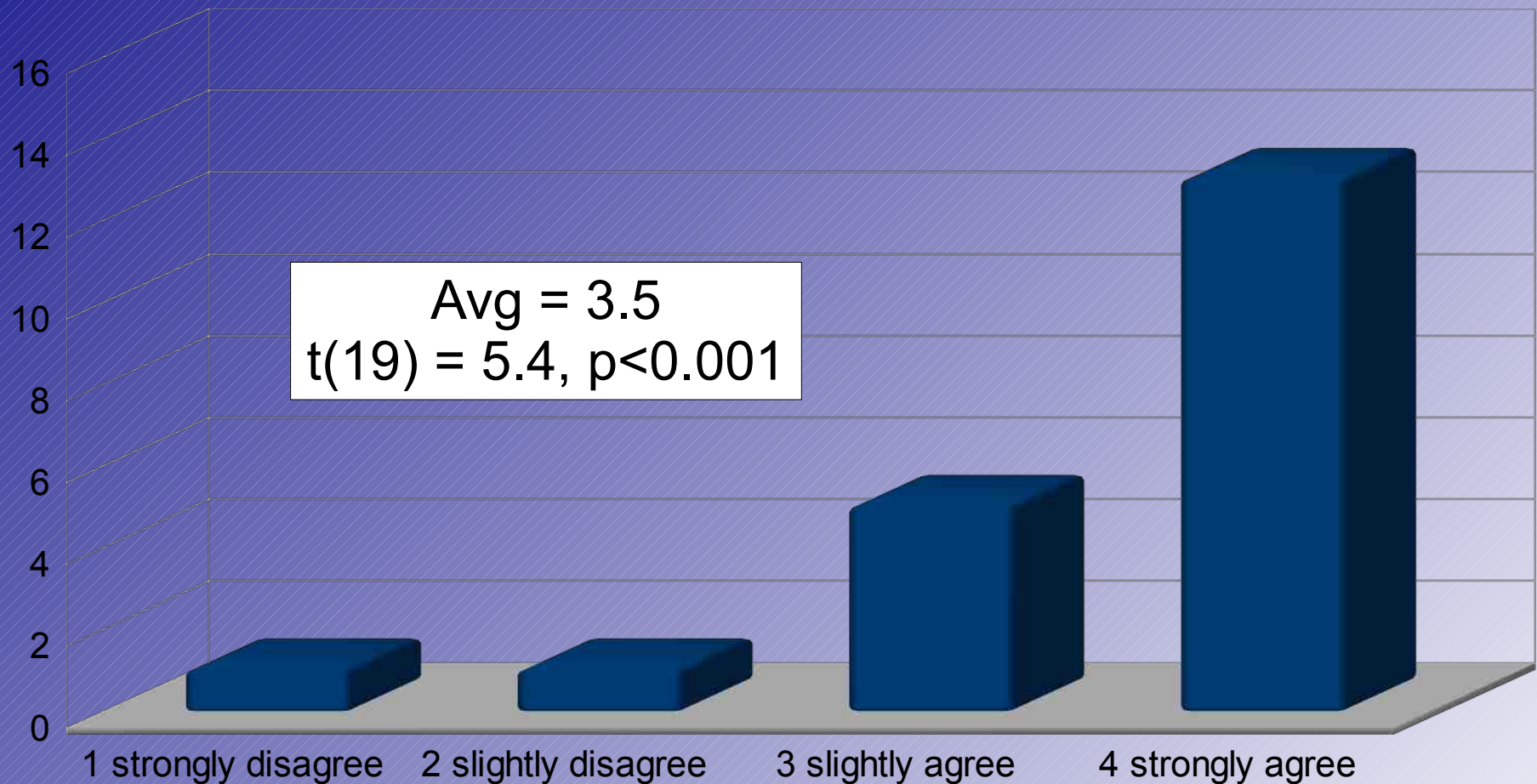
Getting Instructor Feedback

"I read the teacher's feedback after each presentation."



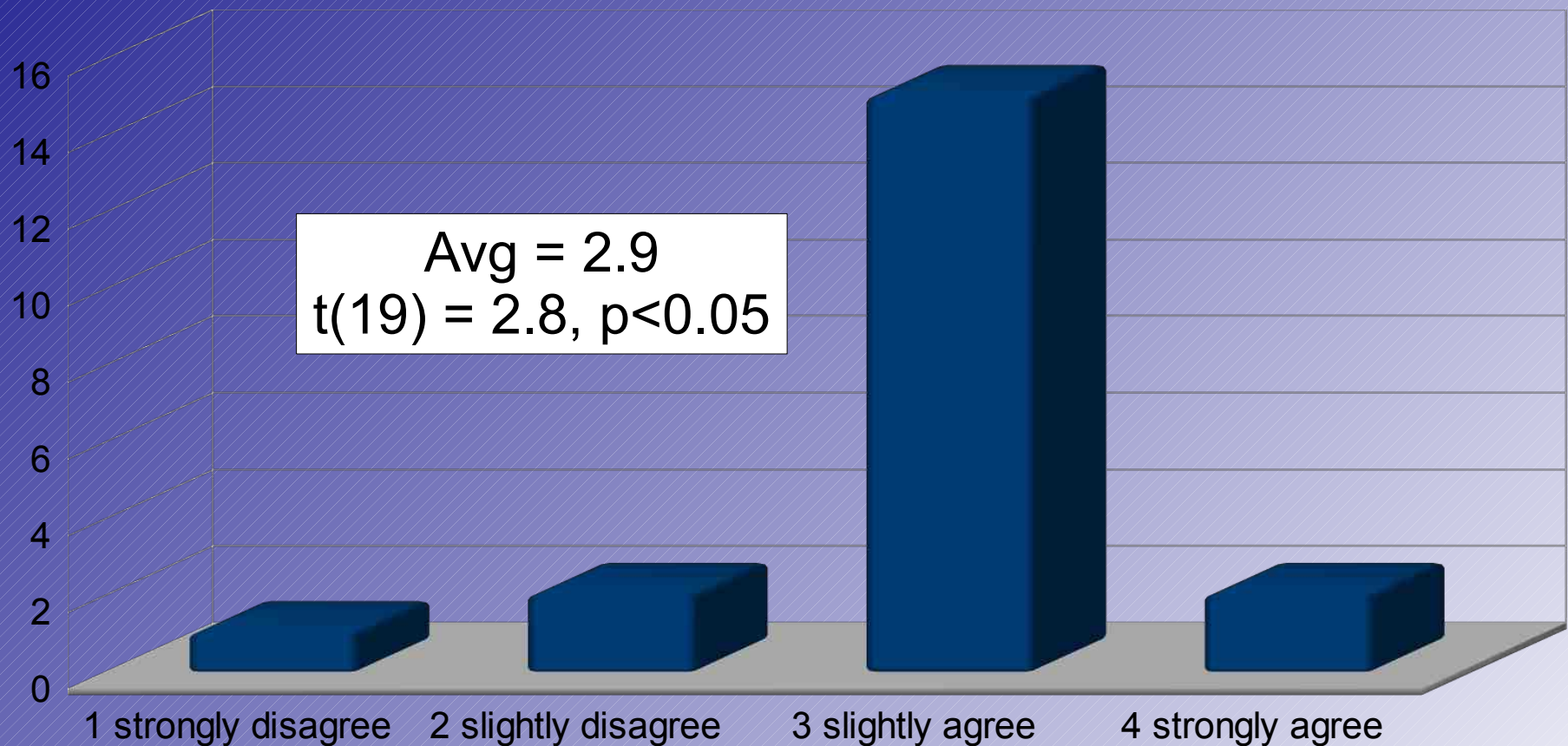
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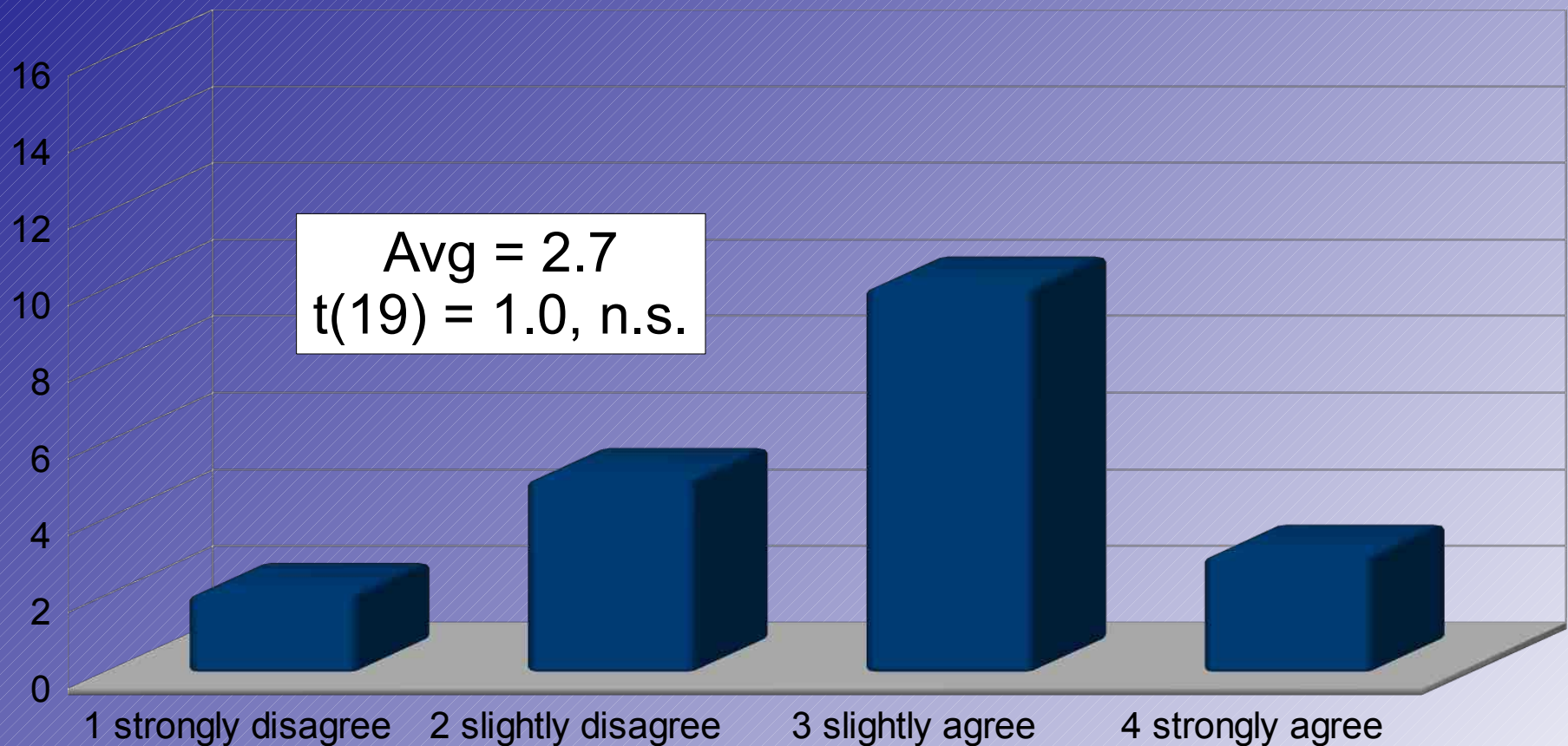
Using Instructor Feedback

"I consciously made some changes to my presentations based on the teacher's feedback."



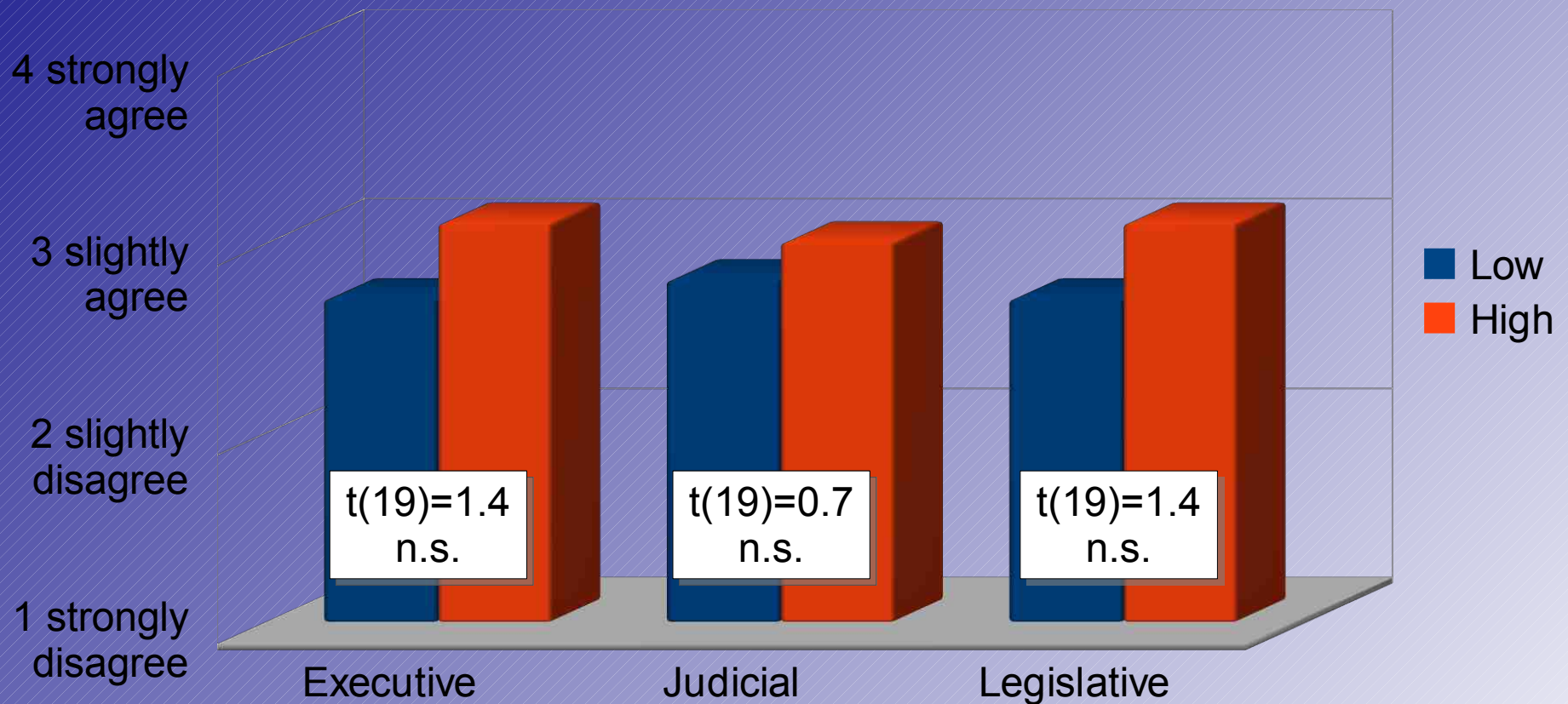
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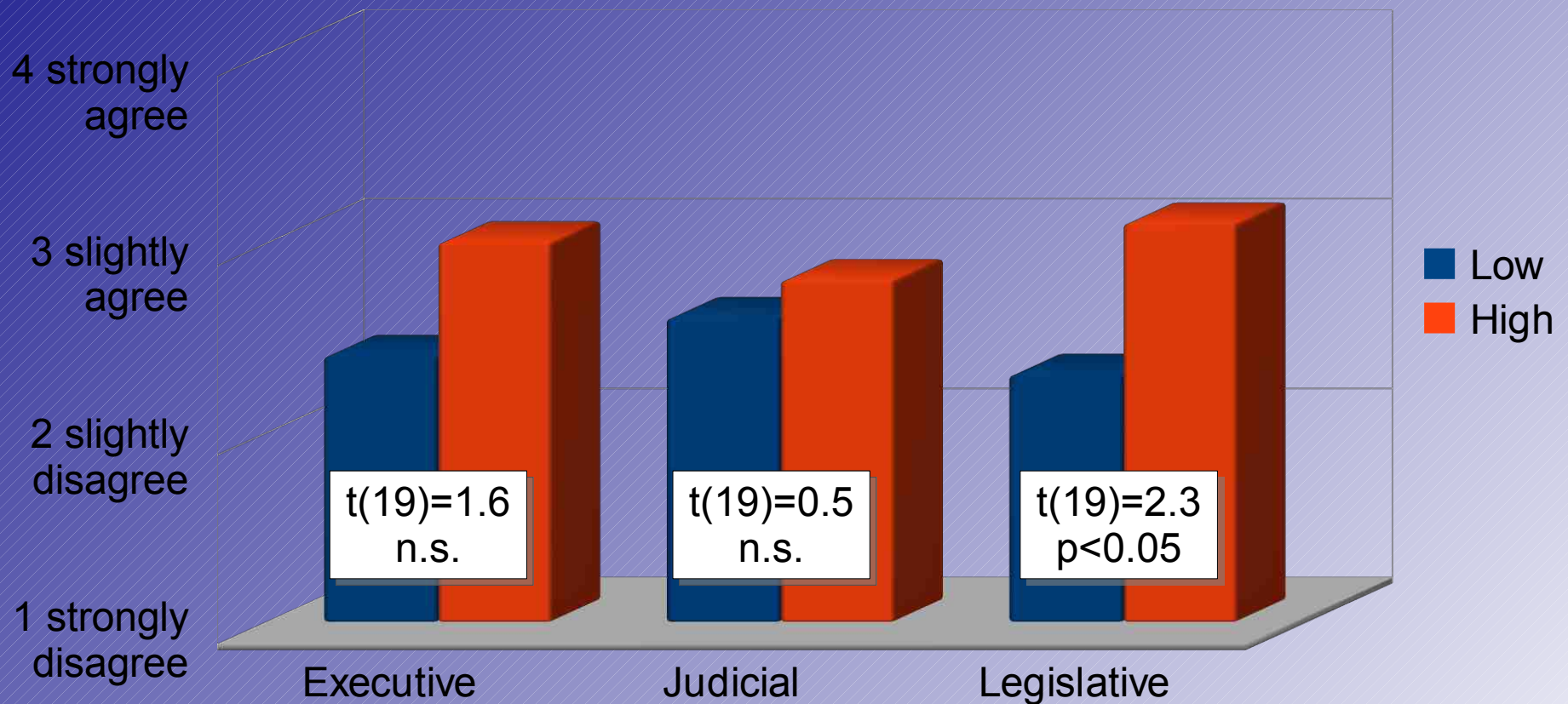
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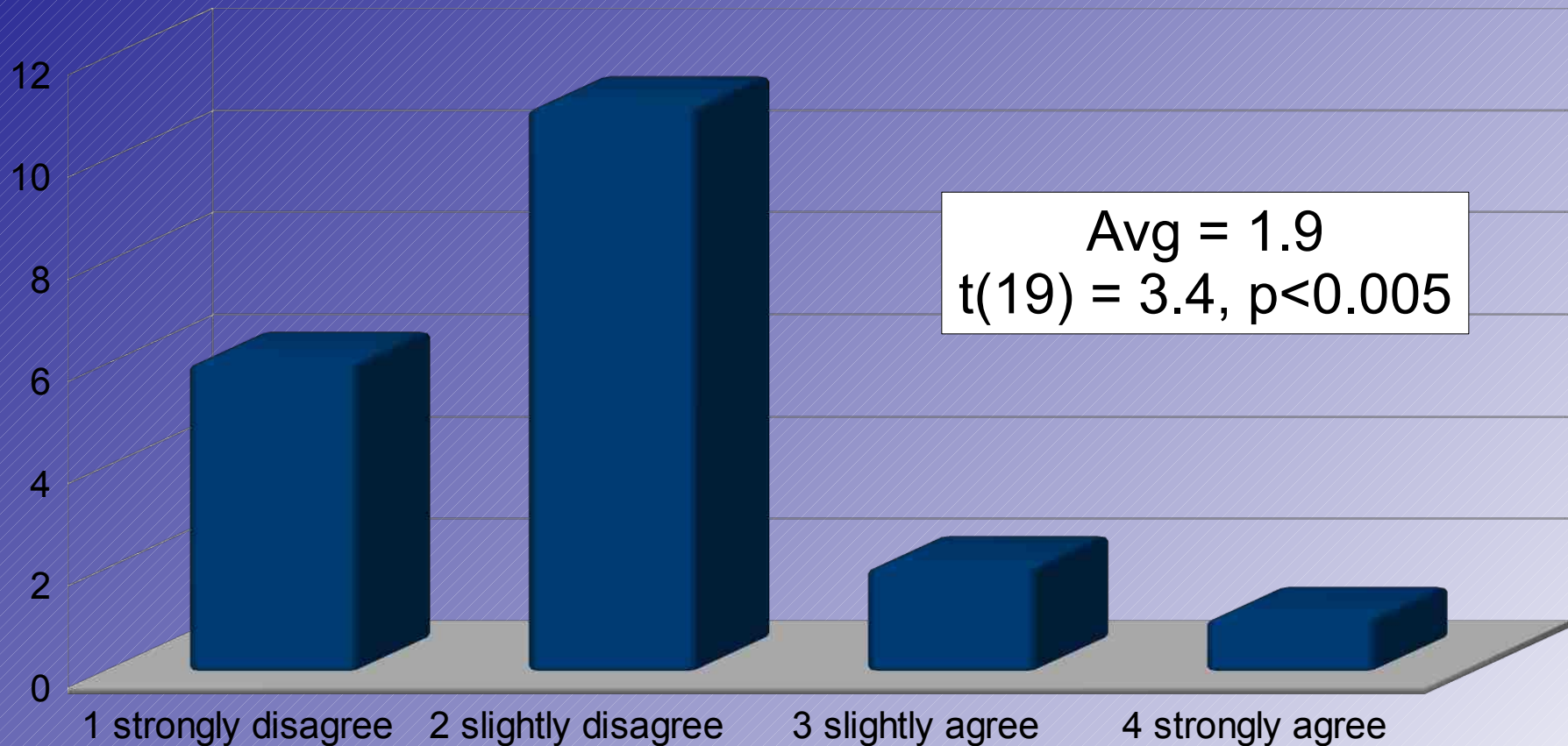
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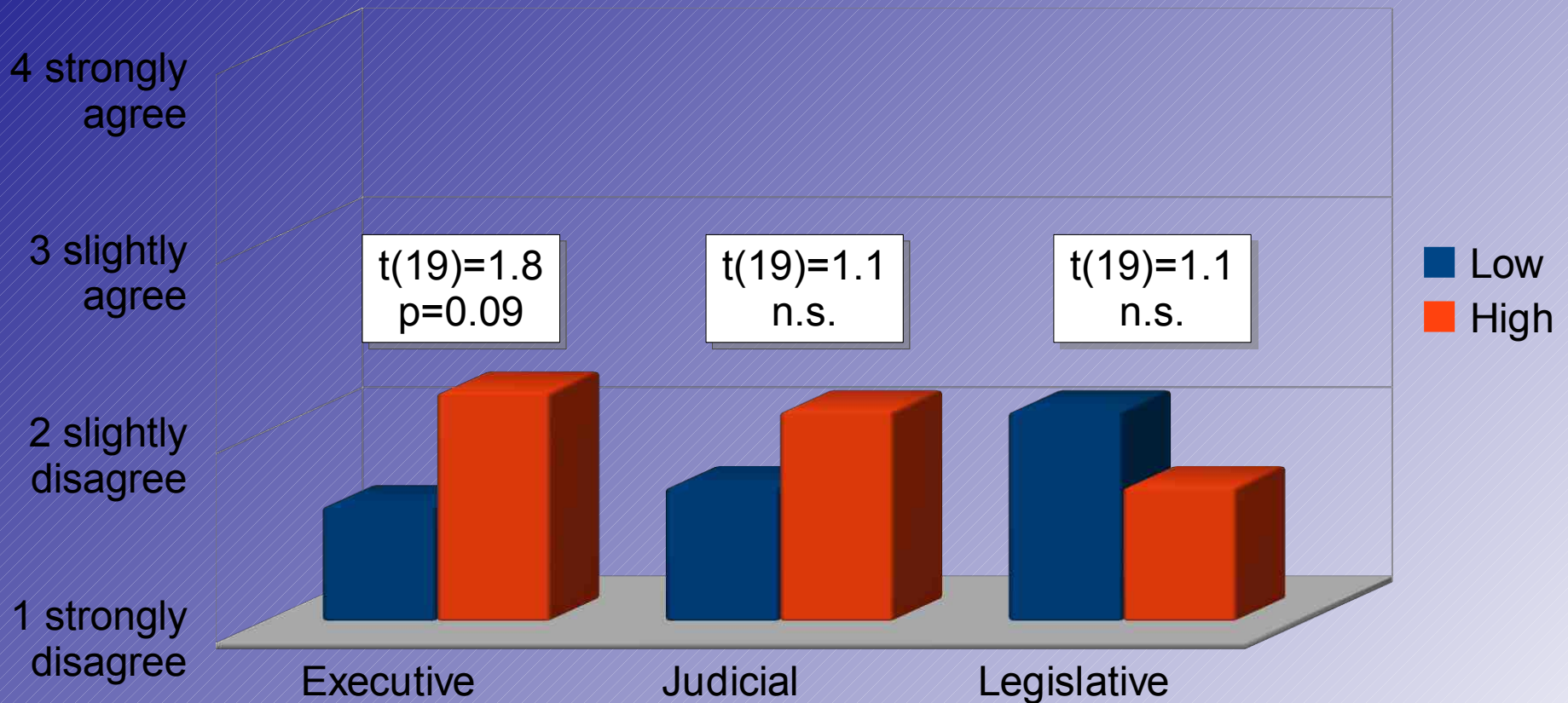
Peer Feedback in L2

"Giving feedback in English was counterproductive."
(i.e., feedback would be more useful if it were done in Japanese.)



Peer Feedback in L2

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Using Feedback: Summary

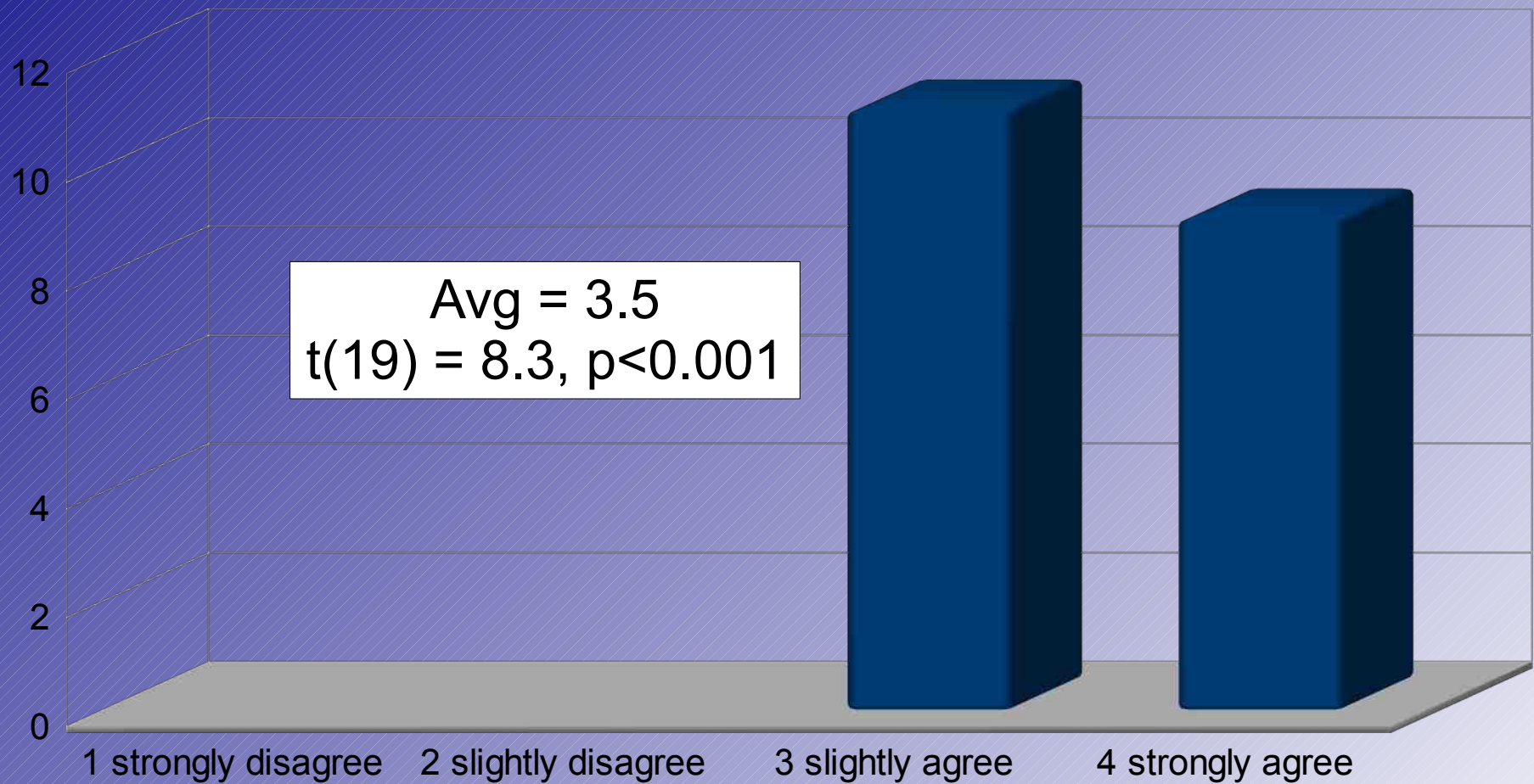
- HiEx students did *not* make greater use of feedback than LoEx.
 - Contra Lin et al. 2001
- HiEx students feel giving feedback in English is somewhat less productive.
 - Doesn't suit their executive style (need *clear* rules).
- HiLg students made greater use of peer feedback than LoLg but not teacher feedback.

Feedbacker and Feedback

- How was the anonymity?
- Was it easy to use?
- Are there any comments or complaints?

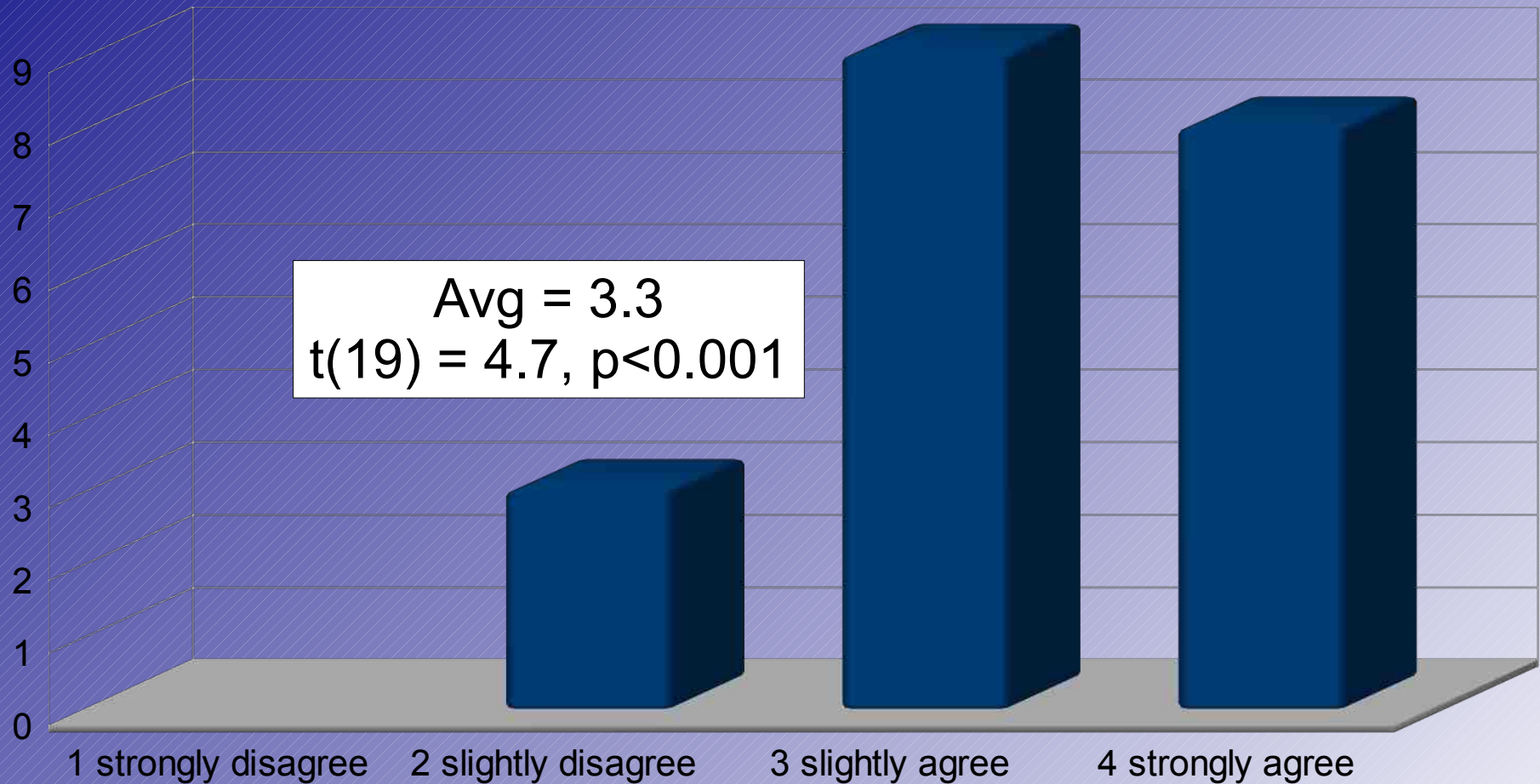
Anonymity

"Giving feedback anonymously was a good idea."



Feedbacker Ease-of-Use

"The feedback web site was easy to use."



Feedbacker Comments & Complaints

- Compliments
 - I was very happy after reading all the unexpectedly complimentary things written by the teacher and my classmates. I worked hard to correct the indicated points in my next presentation. (HiEx)
 - The feedback was very useful. In particular, I think the teacher's comments will be useful in my future life (study?). Because it's difficult to critique oneself, this has been a useful course of study. (HiEx, HiLg)

Feedbacker Comments & Complaints

- Suggestions
 - I want to be able to make changes to my feedback to others.
 - I thought it was good that it was anonymous. It would be good if both teacher and students do the feedback soon after the presentations.
 - How about having students give feedback for the recitations also? (HiEx, HiLg)

Discussion

- Apparent benefits of peer feedback for different thinking styles
 - High judicial students benefit from forming their own criticism of others and using that for self-reflection.
 - High legislative students use peer feedback to construct their own path toward improvement and realize it.
 - High executive students don't benefit from peer feedback unless it is in L1.

Discussion

- Apparent benefits of Feedbacker for presentation instruction
 - Preserves anonymity
 - Simplifies process of giving and receiving feedback (teacher, peer, and self)
 - Easy to use (for most)
 - It's free!

References

- Bartels, N. (2003). Written peer response in L2 writing. *English Teaching Forum*, 41(1), 34–37.
- Cho, K., Schunn, C. (2005). Scaffolded writing and rewriting in the discipline: a web-based reciprocal peer review system. *Computers and Education*, 48(3), 409–426.
- Lin, S. S. J., Liu, E. Z. F., Yuan, S. M. (2001). Web-based peer assessment: feedback for students with various thinking-styles. *Journal of Computer Assisted Learning*, 17(4), 420–432.
- Liu, N.-F., Carless, D. (2006). Peer feedback: the learning element of peer assessment. *Teaching in Higher Education*, 11(3), 279–290.
- Orsmond, P., Merry, S. & Reiling, K. (2000) The use of students derived marking criteria in peer and self-assessment, *Assessment and Evaluation in Higher Education*, 25(1), 23-28.
- Stefani, L. (1998). Assessment in partnership with learners. *Assessment and Evaluation in Higher Education*, 23, 339-350.
- Sternberg, R.J. (1998) *Thinking Styles*. Cambridge University Press, New York.
- Sternberg, R. J., & Wagner, R. K. (1992). Tacit knowledge: An unspoken key to managerial success. *Creativity and Innovation Management*, 1, 5–13.
- Tsui, A. B. M., Ng, M. (2000). Do secondary l2 writers benefit from peer comments? *Journal of Second Language Writing*, 9(2), 147–170.
- Yeh, S.-P., Liu, T.-C., Graf, S., Wang, Y. (2008). Exploring the development of web-based peer assessment system. Paper presented at Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2008.
- Zamel, V. (1973). Feedback in Language Teaching. ERIC Document # ED104148.