# Learning Styles across Three Course Delivery Modes

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- How are learning styles and sense of classroom community related
- Implications for course delivery modes in rural business leader development

# Learning Styles

- **Independent** - learners prefer self-paced instruction and to work alone more than with other students on course projects.
- **Dependent** – look to teachers and peers for guidance and prefer an authority figure to tell them what to do.
- **Competitive** – learn in order to distinguish themselves by virtue of their performance and to receive recognition
- **Collaborative** – acquire information by sharing and cooperating with teachers and peers. Small group discussion and group projects are enjoyed.
- **Avoidant** – not enthusiastic about attending class or acquiring content. Overwhelmed by class activities.
- **Participant** – interested in class activities, eager to do as much work as possible. Aware of and desire to meet teacher expectations.
- Grasha scale

# Sense of classroom community

- **Spirit** – feeling of belonging to and acceptance of <u>group identity</u>
- **Trust** – group members will give <u>feedback</u> to each other
- **Interaction** – learners believe they will <u>benefit by interacting</u> with class members
- **Learning** – knowledge is <u>constructed</u> by the community discussing information

# Sample

- Fourth year class; second year class
  - Two midwestern universities
  - One two-year college
  - Same topical content; assessments varied between 2- and 4-year students; same presentation
- Convenience sample of 66 students
  - 54 enrolled online (19 participated – 35%)
  - 15 enrolled in distance (15 participated – 100%)
  - 47 enrolled in classroom (32 participated – 68%)
- One semester; looking for more (6 successful completions in summer; 9 attempts; 22 enrolled; 41% participation

# Observed Learning Styles

| Learning style | Classroom-based | | Online | | Distance | |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Mean | Std. Dev. | Mean | Std. Dev. |
| Competitive | 2.42 | 0.46 | 2.72 | 0.26 | 2.23 | 0.56 |
| Avoidant | 2.86 | 0.62 | 2.57 | 0.42 | 2.68 | 0.53 |
| Independent | **3.42** | 0.38 | 3.41 | 0.26 | **3.16** | 0.44 |
| **Collaborative** | **3.55** | 0.55 | 3.61 | 0.55 | **3.81** | 0.48 |
| Dependent | 3.55 | 0.41 | 3.62 | 0.31 | 3.57 | 0.40 |
| **Participant** | 3.57 | 0.57 | 3.67 | 0.35 | 3.50 | 0.39 |

# Delivery Mode and Learning Style Correlations

- Classroom:
  - Independent and participant (-0.33; p=0.08)
  - Avoidant and participant (0.78; p=0.01)
- Online:
  - Independent and participant
    - (0.70; p=0.03)
- Distance:
  - Independent and **avoidant** (0.52; p=0.06)
  - Dependent and avoidant (0.54; p=0.05)
- **Delivery modes are different**

# Observed Sense of Community

| Category | Classroom-based | | Online | | Distance | |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Mean | Std. Dev. | Mean | Std. Dev. |
| Trust | **31.17** | 4.81 | 29.09 | 3.81 | **34.36** | 4.41 |
| Spirit | **34.54** | 5.89 | **28.93** | 5.36 | 35.40 | 6.88 |
| Interaction | 35.60 | 6.52 | 33.70 | 4.97 | 35.80 | 4.25 |
| Learning | 39.58 | 6.25 | 37.86 | 4.26 | 38.47 | 5.68 |

All four community sense types are positively correlated (with statistical significance)

# Mean Learning Style and Community Sense

|  | Spirit | | Trust | | Interaction | | **Learning** | |
|---|---|---|---|---|---|---|---|---|
|  | Mean | Std Dev | Mean | Std Dev | Mean | Std Dev | Mean | Std Dev |
| Independent | 3.64 | 0.51 | 3.10 | 0.37 | 3.37 | 0.33 | 3.33 | 0.36 |
| Avoidant | 3.33 | 0.26 | 2.67 | 0.47 | 2.78 | 0.46 | 2.69 | 0.60 |
| **Collaborative** | **3.85** | 0.49 | **4.20** | 0.17 | 3.57 | 0.24 | **3.59** | 0.59 |
| Dependent | 3.45 | 0.70 | 3.50 | 0.00 | 3.66 | 0.38 | 3.56 | 0.37 |
| Competitive | 2.65 | 0.33 | 2.45 | 0.61 | 2.49 | 0.41 | 2.39 | 0.51 |
| Participant | 3.25 | 0.60 | 3.32 | 0.29 | 3.72 | 0.40 | 3.59 | 0.51 |

# *Similarities* and Differences

- Classroom and Distance
  - Lowest learning style score was the same when students had direct interaction with instruction (competitive); lowest score is different for online, but not statistically different
  - Lowest community sense score is the same (trust); it is different for online (spirit)
- Greatest community sense score is the same for all three modes (learning)

# Similarities and *Differences*

- Classroom and online had independent learning style correlated with participant learning style, but in opposite direction

- Independent learning style is correlated with different learning style between classroom and distance (participant vs. avoidant)

- Spirit is the only community sense that is statistically different across delivery modes. It is greater in classroom than online.

# Conclusions

- Naïve interpretation: classroom students usually comprised of "collaborative" learning style students who like to construct knowledge in the classroom
  - Collaborative means sharing and cooperating with teachers and peers
- Strongest style is **collaborative** learning style who **trusts** peers or others that give feedback
  - No one delivery mode meets learning activity preferences for this learning style than another

# Implications

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  - Coaching, problem-based learning, self-discovery activity would fare well in the class. A role for business leaders in the classroom (case, Skype, panel)
  - If these results generalize, what instructional techniques useful to provoke this
    - Starting a business
    - Professional training
  - Is there a tradeoff between group size and learning style, since this is correlated with community?
    - Collaborative trusters (positive correlation)
    - Learning correlated with spirit, trust, interaction
    - Manage with small-group discussions