Constructive Controversy and Innovation

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Nanyang Business School
## Nanyang Technological University

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Agenda, Schedule

- Introduction
- Nature of Controversy
- Why Use Constructive Controversy
- In-Depth Walk Through
- Constructive Controversy Lesson Planning
- Conclusions and Closure

Participant Learning Goals (Objectives)

- Understand the nature of intellectual conflict
- Understand the constructive controversy procedure to structure and manage intellectual conflicts
- Learn how constructive controversy enhances creative problem solving and innovation
- Learn the procedure for structuring constructive controversies as part of academic lessons
- Learn some of the essential skills in engaging in constructive controversy
- Learn how to plan and implement academic lessons featuring constructive controversy

Relationship Among Theory, Research, And Practice

Theory

Operational Procedures

Research

Validated Theory
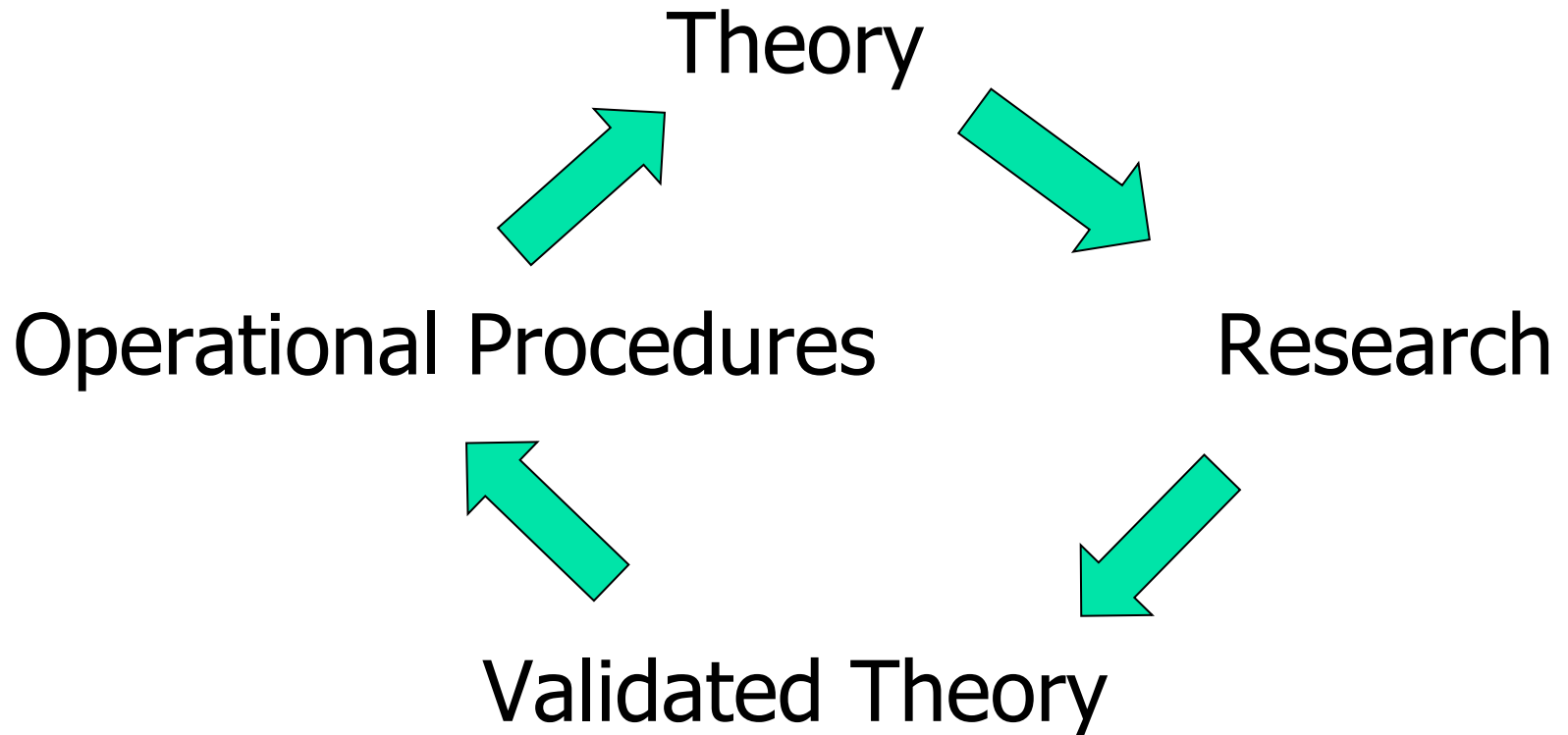
Theory, Research, Practice

- Theory:
  - Summarizes, Subsumes Research Into Meaningful Conceptual Framework (Makes Sense Of What We Know)
  - Guides Future Research (Tells Us What We Need To Find Out)
  - Guides Practice (Tells Us What To Do In Applied Situations)
- Research:
  - Validates Or Disconfirms Theory
  - Thereby Leading To Its Refinement, Modification, Or Abandonment
- Practice:
  - Is Guided By Validated Theory
  - Reveals Issues And Inadequacies That Lead To Refining Theory

What Is Constructive Controversy?

- Definition
- Quiz
- Walk-Through of Procedure
- Discussion

Controversy

- When One Person's Ideas, Information, Conclusions, Theories, Or Opinions Are Incompatible With Those Of Another --

- And The Two Seek To Reach An Agreement.

Controversy Test

- An Argument A Day Makes Members' Involvement Stay.

  _____ True   _____ False

- Controversy Is The Team Leader's Best Friend.

  _____ True   _____ False

- A Decision Without Controversy Is Like A Day Without Sunshine. Things Are Gloomy, Depressing, And Drag Along Slowly.

  _____ True   _____ False

- All Intellect Growth (And Higher Level Reasoning) Depends On The Collision Of Adverse Opinions.

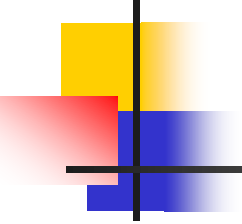 _____ True   _____ False

- It Is Controversy That Adds To Decision Making The Spark Of Curiosity, The Flame Of Interest, The Heat Of Involvement, And The Power Of Creativity.

  _____ True   _____ False

Controversy Procedure

Step

- Prepare
- Present
- Open Discussion
- Perspective Reversal
- Synthesis

Phrase

- Our Best Case Is...
- The Answer Is... Because...
- I Disagree Because... You Should Agree With Me Because...
- Your Position Is...Because...
- Our Best Reasoned Judgment Is...

Was Peter Pan Right Or Wrong?

- Peter Pan Believed That Staying Young In Never-Never Land Was The Ideal Way To Live. Was He Right Or Wrong? Is It Better To:

  - *Stay Young And Never Grow Up?*
  - *Grow Up And Leave Childhood Behind?*

- Be Ready To Present The Best Case Possible For One Of These Positions.

What Is An Argument?

- An Argument Is A Connected Series Of Statements Intended To Establish A Proposition.
- Thesis Statement, Claim, Proposition
- Rationale (Given That)
- Conclusion (Same As Thesis Statement)

Controversy Rules

- *I Am Critical Of Ideas, Not People*
- *I Seek The Best Reasoned Judgment, Not Winning*
- *I Encourage Everyone To Participate*
- *I Listen To Everyone's Ideas, Even If I Do Not Agree*
- *I Restate What Others Say If It Is Not Clear*
- *I Try To Understand All Sides Of The Issue*
- *I First Bring Out The Different Ideas And Views, Then I Put Them Together*
- *I Change My Mind When Evidence Indicates I Should Do So*

Structuring Constructive Controversies

- Propose Several Courses Of Action
- Form Advocacy Teams
- Engage In Controversy Procedure
  - Research Position And Prepare Persuasive Presentation
  - Presentations
  - Open Discussion: Advocacy, Refutation, Rebuttal
  - Perspective Reversal
  - Drop Advocacy, Make Best Reasoned Judgment About Issue
  - Process How Effectively Procedure Was Followed
- Implement The Decision

Why Use Constructive Controversy

- Jigsaw
- Research Promise
- Outcomes
- Process
- Conditions
- Relationship With Creative Problem Solving And Innovation
- Conclusions

Theory-Research Jigsaw

- Outcomes

- Process 1: Steps 1, 2, 3

- Process 2: Steps 4, 5

- A:3 – A:10

- A:10 – A:17

- A:18 – A:24

Theory And Research: Constructive Controversy

- Write A Rationale Statement
- Theory (Process)
- Research (Outcomes)
- Conclusions

Theoretical Roots

- Developmental Theories:
- Cognitive Theories:
- Social Psychological Theories:
- Controversy Theory:

- Piaget, Kohlberg, Hunt
- Berlyne, Hammond
- Maier, Janis

- Johnson & Johnson, Tjosvold, Smith

Process Of Controversy

1. Organizing Information And Deriving Conclusions
2. Presenting And Advocating Positions
3. Uncertainty Created By Being Challenged By Opposing Views
4. Epistemic Curiosity And Perspective Taking
5. Reconceptualization, Synthesis, Integration

Process Of Controversy
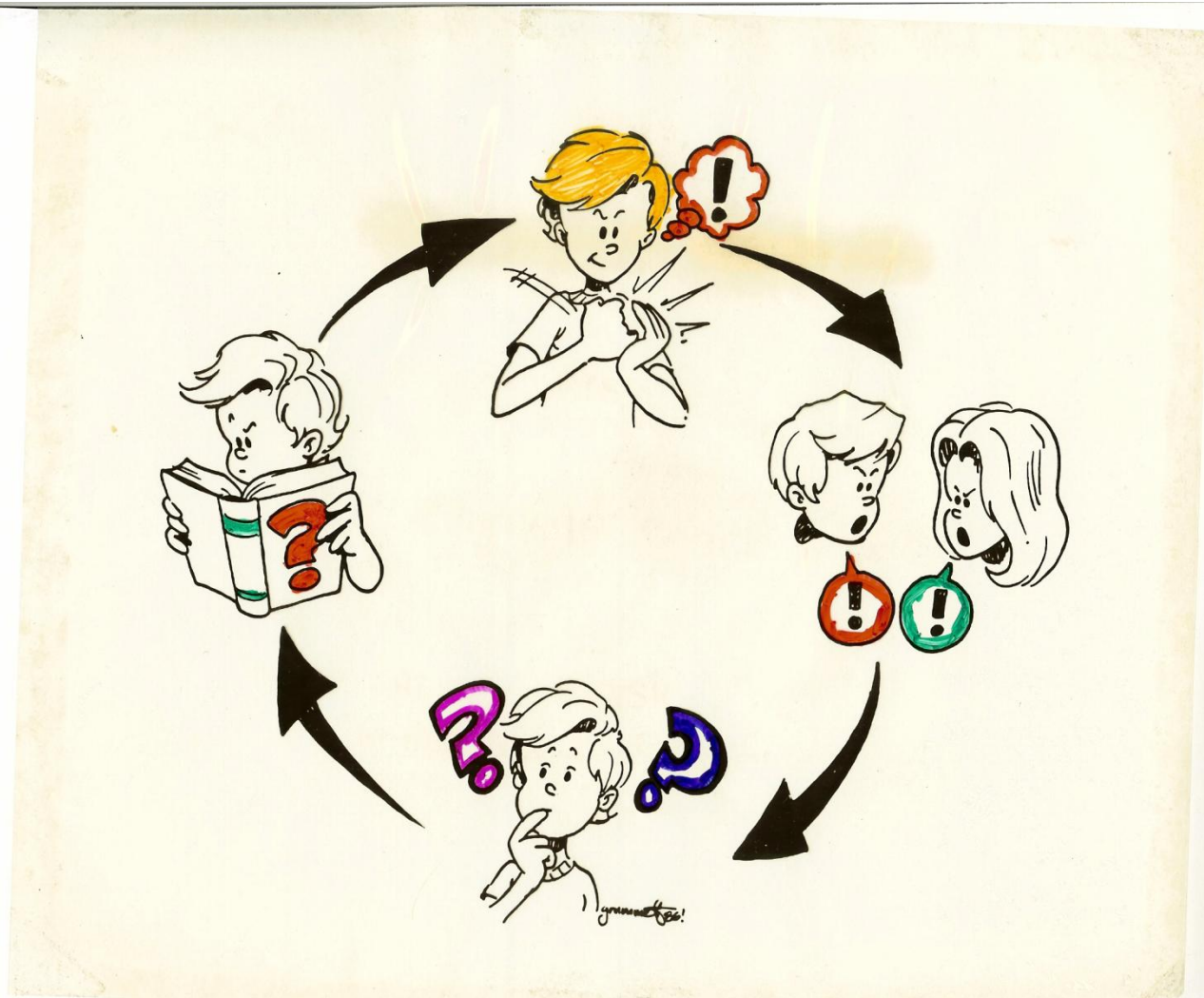
Uncertainty

- Freedom To Express Independent Opinions
- Misperceiving Opposing Information And Reasoning
- Being Overloaded With Opposing Information
- Perceiving Usefulness Of Opposing Position
- Being Challenged By A Majority Or Minority
- Being Challenged By Valid Or Erroneous Position

Epistemic Curiosity And Perspective Taking

- Search For Information
- Seeking To Understand Opposing Position
- Perspective Taking

Reconceptualization, Synthesis, And Integration

- Incorporation Of Others' Information And Reasoning

- Attitude And Position Change

- Transition From One Stage Of Cognitive Reasoning To Another

History Of Research

- We Have Conducted Numerous Studies Since Early 1970s
- First Review: 1979
- Meta-Analysis: 1989, 1995, 2009
- Applied To:
  - Decision Making
  - Productivity
  - Creativity
- Settings:
  - Education
  - Business & Industry
  - Engineering

Outcomes Of Controversy 1

- Productivity And Decision Quality
  - Motivation To Search For More Information
  - Learning Of Relevant Information & Long-Term Retention
  - Insight Into Others' Perspectives, Reduction Of Egocentric Reasoning
  - Accuracy And Quality Of Decisions
  - Creativity, Higher-Level Cognitive & Moral Reasoning
  - Increased Task Involvement
  - Increased Attention On Problems To Be Solved & Energy To Do So
  - Greater Exchange Of Expertise

Outcomes Of Controversy 2

- Interpersonal Attraction Among Participants
  - Liking Among Participants, Group Cohesion
  - Confidence That Conflicts Will Be Positive
  - Keeps Relationships Clear Of Resentments
- Psychological Health And Social Competence
  - Healthy Cognitive & Social Development
  - Self-Esteem
  - Clarity Of Own & Other's Identity, Values
  - Releases Feelings That If Repressed Creates Psychologically Problems
  - Fun & Enjoyment

Minority Influence

- Minority Influence Occurs When Group Members Who Are In The Opinion Minority Persuade Members In The Opinion Majority To Change Their Opinion And Agree With The Minority

- Opinion Minorities Are Most Persuasive When:
  - They Remain Steady In Their Views
  - They Once Held The Majority Position
  - They Are Willing To Compromise
  - They Have Support From Others
  - They Present Their Views As Compatible With Majority View
  - Group Members Want To Make An Accurate Decision

Research Results

- *Motivation To Search For More Information*
- *Insight Into Others' Perspectives, Reduction Of Egocentric Reasoning*
- *Higher-Level Reasoning*
- *Higher Achievement And Retention, Productivity*
- *Higher-Quality Problem Solving And Decision Making*
- *Creativity*
- *Exchange Of Expertise*
- *Task Involvement*
- *Positive Relationships*
- *Self-Esteem*

Meta-Analysis Of Academic Controversy Studies: Mean Effect Sizes

Dependent Variables	Controversy / Concurrence Seeking	Controversy / Debate	Controversy / Individualistic Efforts
Achievement	0.68	0.40	0.87
Cog Reasoning	0.62	1.35	0.90
Perspective Taking	0.91	0.22	0.86
Motivation	0.75	0.45	0.71
Attitudes Task	0.58	0.81	0.64
Liking For Others	0.24	0.72	0.81
Social Support	0.32	0.92	1.52
Self-Esteem	0.39	0.51	0.85

Impact Of Controversy On Moral Development

- 56 3rd, 4th, 5th Grade Students
- Participating In Controversy (Vs. Individualistic Learning) Resulted In:
  - Greater Overall Moral Development
    - Greater Moral Reasoning
    - Greater Moral Motivation
    - Greater Moral Character
  - Greater Ethical Skills (i.e., Perspective Taking, Self-Perception As Moral Person, Rule Orientation)
  - Higher Academic Achievement
- Tichy, M., Johnson, D. W., Johnson, R. T., Roseth, C. (2010). The impact of constructive controversy on moral development. **Journal of Applied Social Psychology**, **40**(4), 765-787.

Mediating Conditions

- Cooperative Context
- Heterogeneity Of Group Members
  - Perspectives
  - Areas Of Expertise
- Social Skills
  - Disagreeing With Other's Ideas While Confirming Other's Competence
  - Perspective-Taking
  - Differentiating Before Seeking An Integration
- Rational Argumentation

Self-Diagnosis: Controversy Procedure

Phase	Strengths	Weaknesses
Research		
Present		
Discuss		
Reverse Perspectives		
Reasoned Judgment		

In-Depth Walk Through

- Assignment
- Preparing
- Presenting (Inquiry-Based Advocacy)
- Refuting and Rebutting
- Perspective-Taking
- Synthesizing
- Processing
- Conclusions

Controversy Assignment

- Tasks:
    - Prepare, Present, Defend Two Opposing Positions
    - Write Report Synthesizing Both Positions
- Cooperative: One Report From Group, Everyone Has To Agree, Everyone Has To Be Able To Explain Rationale For Group's Position
- Criteria For Success:
    - All Group Members Receive Grade For Report
    - Each Group Member Takes Test Covering Both Positions. If All Members Score 90 Percent Correct, Each Member Receives Five Bonus Points
- Individual Accountability:
    - Each Member Takes Test
    - One Member Randomly Selected To Present Report To Class
- Expectations:
    - Everyone Participates In All Steps Of Procedure
    - Everyone Follows Rules Of Constructive Controversy

What To Do With The Acadians?

- It is July 28, 1755. War Between England And France Is About To Start. We Live In Canada. Should We:
  - *Deport The Acadians To The South?*
  - *Accept The Acadians' Limited Oath Of Loyalty And Allow Them To Stay?*
- Be Ready To Present The Best Case Possible For One Of These Positions.

Preparing Your Position

- Your Goal Is To Present The Best Case Possible For Your Assigned Position So Other Group Members Will:
  - Seriously Consider Your Position
  - Learn The Information Contained In Your Position
- Plan Compelling Statement Of Your Thesis
- Plan Rationale Statement:
  - Summarize Evidence Supporting Your Position
  - Arrange It In Logical Order
- Plan Compelling Statement Of Your Conclusion
- Use More Than One Media In Presenting Your Position
- If Presentation Is To Be Made In A Pair, Plan The Division Of Labor

What Is An Argument?

- An Argument Is A Connected Series Of Statements Intended To Establish A Proposition.

- Thesis Statement, Claim, Proposition

- Rationale (Given That)

- Conclusion (Same As Thesis Statement)

Presenting Positions

- Goal Is To Advocate Your Assigned Position Even If You Do Not Believe It

- Position "A" Is Presented Sincerely And Forcefully (Save Some Of Your Evidence For The Discussion)

- Position "B" Is Presented Sincerely And Forcefully (Save Some Of Your Evidence For The Discussion)

- Listen To Opposing Position Carefully, Learn The Information Supporting It, Take Careful Notes

- If Pairs Present, Each Member Presents Equally

Discussing The Issue

1. Advocate Own Position:
   - Present Arguments Forcefully & Persuasively
   - Teach Facts And Rationale
2. Refute Opposing Position:
   - Learn Facts And Rationale
   - Attack And Destroy Information & Logic
3. Rebut Attacks On Own Position By Presenting Counter Arguments To Criticisms
4. Learn Opposing Position

Controversy Rules

- *I Am Critical Of Ideas, Not People*
- *I Seek The Best Reasoned Judgment, Not Winning*
- *I Encourage Everyone To Participate*
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- *I Restate What Others Say If It Is Not Clear*
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- *I Change My Mind When Evidence Indicates I Should Do So*

Perspective Reversal

- Present The Best Case Possible For The Opposing Position
- Be Forceful And Persuasive
- Add New Arguments, Facts, Rationale
- Correct Errors And Omissions In Other's Presentation Of Your Position

Reaching A Decision

- Goal Is To Reach Best Reasoned Judgment About The Issue

- Drop All Advocacy

- Summarize The Best Evidence And Reasoning From Both Sides

- Seek A Synthesis That Incorporates Both Positions

- Write Report As An Argument (Thesis, Rationale, Conclusion)

- Sign Report Indicating "I Agree, I Can Explain Rationale, All Other Group Members Can Explain"

Group Processing

- One Thing I Really Liked About Arguing With You Is . . .

- One Thing I Really Like About Engaging In A Controversy Is . .

Leaping Chasm Of Unknown

- Look
- Think
- Leap
- Conclude
- Tell

- Research, Gather
- Conceptualize, Organize
- Leap
- Conclude, Claim
- Present, Advocate

Criticizing Ideas, Not People

- Four Pieces Of Paper (Me, My Idea, My Idea, My Idea)
- Presenter Pattern:
    - This Is Me
    - This Is My Idea
    - Separate Yourself From Your Idea (It's On The Table)
- Responder Pattern:
    - I Like You (Confirm Presenter's Competence)
    - I Do Not Agree With Your Idea
    - Rip The Idea To Shreds

Lesson Planning

- Select A Lesson
- Plan It In Pairs
- Guided Practice
- Barriers And Solutions

Conclusions And Closure