The Impact of Thinking Maps® in Elementary School Music Education:

Case Study with 5th Grade Flute Class in Teaching Rhythm
By YoungHoon Park
Overview

The purpose of this study is to explore the effectiveness of Thinking Maps® in teaching instrumental music for fifth-grade flute class.

Typically used in reading classes, provide a visual rendering of patterns, TM will be an effective tool to help students learn to count correctly and play in time.

Four patterns were tested for their efficacy in helping students learn 6/8 rhythm: Double Bubble Map for comparing and contrasting, Brace Map for recognizing parts-in-whole, Circle Map for defining in context, and Tree Map for classifying.

Methods: Case Study done with interviews, classroom observations, and summative pre- and post-assessments. Assessments evaluated both the students’ understanding and their playing ability.
Questions

- Can “Thinking Maps®” improve students’ performance?
- Can “Thinking Maps®” make students understand clearly what they are learning?
- Do “Thinking Maps®” work for every student?
Methodology

- Literature Review
- Case Study
  - Class Observation
  - Comparison between Control Group Study and Test Group Study
- Interview with Co-Teachers and Staff
- Application of Thinking Maps®
Thinking Maps®

- Transformational Language for Learning
- Developed by David Hyerle
  - See References for “Brief History”
- Visual Learning Tool
- Adopted by many schools esp. for Literacy
Basic Principal of Thinking Maps®

Double Bubble Map

“For Comparison or Contrast”

Primitive

Expanded Map
Eight Thinking Maps®

- Circle Map: FOR DEFINING
- Tree Map: FOR CLASSIFYING
- Bubble Map: FOR DESCRIBING
- Double Bubble Map: FOR COMPARING
- Flow Map: FOR SEQUENCING
- Multi-Flow Map: FOR CAUSE AND EFFECT
- Brace Map: WHOLE TO PARTS
- Bridge Map: FOR ANALOGIES
Holistic Work of Thinking Maps®

The term "Thinking Maps" with or without the graphic forms of the eight Maps has a registered trademark.
P ES provides a safe learning environment that promotes academic excellence and personal creativity by challenging all students for success in real world. To accomplish the vision P ES implements 12 Key Practices:

Under the supervision of **School Improvement Taskforce** ... P ES expands the Exploratory Trail using collaborative data driven instructional planning to infuse ALPs strategies into 50% of each lesson. **Thinking Maps® - Language for Learning** is one of the resources, associated with this step.
Observations & Findings through Case study

Control Group Study vs. Test Group Study
Pre-Assessment

On Basic Music Theories: Notation, Rhythm, Sixteenth Note, etc.

Average Score: 47.2
- Lowest: 9.6
- Highest: 66

On 6/8 Rhythm and Play

Average Score: 37.81
- Lowest: 0
- Highest: 68
Post-Assessment

Control Group
- 2 weeks of Traditional Teaching
- Average Improvement Rate: 17.9%
- “Chio” Improved 1.7%

Test Group
- 2 weeks of Teaching w. Thinking Maps®
- Average Improvement Rate: 44.2%
- “Chio” Improved: 79.2%
Improvement in Control Group

- Test Areas: Basic Music Theories: Notation, Rhythm, Sixteenth Note, Performance.
  - “Raa” with IEP shows Greatest Improvement
  - “Sas” shows -10.3% (negative) improvement

- Findings
  - Students with LD learn well with traditional learning pattern, such as lecture style, memorization
  - Normal students in Control groups may lose motivation.
Improvement in Test Group

- Test Area: 6/8 Note Value
  - Majority of students shows great improvements
  - “Chio” shows greatest improvement
  - “Raa” with IEP shows lowest improvement

Findings:
- Research proves that Thinking Maps® bring effective learning for many students
- Thinking Maps® don’t necessarily work well for all, esp. for Students with LD
Thinking Maps® help performance with effective literacy in instrumental music education.

Thinking Maps® increase average group score eventually.
Discovery from Interview

- Are you using the Thinking Maps? Why or why not?
- Do you like using them? Why or why not?
- What success have you had with thinking maps?
- What seems to be the most effective way to use them?
- What problems have you had with thinking maps?

- Yes - Excellent Program
- Yes - Love to Use because Kids Like
- Organizing Info; Motivation
- Used Group Level, Instead of Individual Application
- Seldom Used due to Limited Time during Class
Use of Thinking Maps®

- Double Bobble Map
- Brace Map
- Circle Map
- Tree Map
Double Bubble Map

- **Time Signature - 4/4 versus 6/8**
  - Helps Comparison & Contrast
  - Visualize complicated parts
  - Avoid Confusion in Performance
Brace Map

- **6/8 Music Value**
  - Helps to understand different values
  - Helps see “Parts in Whole”
  - Understands a recurring pattern in the whole music piece
Circle Map

- Defining Music
  - Recognizing Characteristics of music
  - Finds Distinctions of music, along with Elements of Music Symbols, Markings, and Emphases Used in the Music
Tree Map

- Analyzing Music
  - Helps Classifying

- Tree Map shows frequently appearing music pattern

- Essential for performance with excellence
Impacts of Thinking Maps®

- Thinking Maps® Enhance Metacognition of Brain

- Thinking Maps® Promote Equal Education

- Thinking Maps® Differentiate
Conclusions

- Thinking Maps® as Transformational Learning Language for All
  - Global language of learning for all
  - Visualize; organize; and make effective learning

- We Still Have Room for Perfection
  - Thinking Maps® can be a huddle for some students esp. for students with LD
  - Thinking Maps® is a tool for learning, not the content itself – the knowledge and information
  - Need time for utilization within the limited time during classes
References


Alper, Larry; Hyerle, David; Curtis, Sarah (2004). Student Success with Thinking Maps: School Based Research Results, and Models for Achievement Using Visual Tools,


Lautzenheiser, Tim; Higgins, John; Menghini, Charles; Lavender, Paul; Rhodes, Tom C.; and Bierschenk, Don. Essential Elements 2000, Hal Leonard Corporation, 2004


5 Teachers and Staff for Interview

Fifth Grade Flute Class of 2012-13