Using & Assessing SketchNoting as a Pedagogical Tool in Ecology

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Abstract
WHAT IS SKETCHNOTING? Visual, non-linear note taking or knowledge sharing. Visualizing complex information and concepts.

Keywords
Sketchnoting, Pedagogical tool, Ecology

Disciplines
Educational Assessment, Evaluation, and Research | Educational Methods | Educational Technology | Higher Education | Instructional Media Design | Vocational Education

Comments
This presentation is cited as Gansemer-Topf, A.M., Paepcke-Hjeltness, V. Using & Assessing SketchNoting as a Pedagogical Tool in Ecology, which was presented at ISSOTL19. Atlanta, Georgia. October 9-12, 2019.
USING & ASSESSING

SKETCHNOTING AS A PEDAGOCICAL TOOL IN ECOLOGY

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ACKNOWLEDGEMENTS

CELT - Miller Faculty Fellowship Grant – Iowa State University

ANN RUSSELL - Instructor of Ecology Course and Co-PI

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OVERVIEW OF PRESENTATION

1. INTRODUCTIONS

2. OVERVIEW OF SKETCHNOTING

3. INTEGRATION OF SKETCHNOTING IN ECOLOGY

4. RESEARCH STUDY
   Research Questions, Conceptual Framework, Methodology, Results

5. DISCUSSION/IMPLICATIONS
SKETCHNOTE HANDOUT

Please contact us for the file, so we can keep track on who is using it. Thanks!

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OVERVIEW OF SKETCHNOTING (SKN)

WHAT IS SKETCHNOTING?

Visual, non-linear note taking or knowledge sharing.
OVERVIEW OF SKN

WHAT IS SKETCHNOTING?

Visual, non-linear note taking or knowledge sharing.

Visualizing complex information and concepts.
OVERVIEW OF SKN

METHODOLOGY of SKETCHNOTING

Breaking down complexity by:

Using combinations of words and simple shapes, frames, and connectors.
OVERVIEW OF SKN

BENEFITS of SKETCHNOTING

Engaging whole mind

Memory and retention

Fostering Sketch confidence

Fostering creative confidence

Visual adapted from Mike Rohde
RESEARCH STUDY QUESTIONS

1. What are students’ perceptions of Sketchnoting?

2. What is the relationship between the quality of Sketchnoting and content knowledge?
HOW TO INTEGRATE SKN IN ECOLOGY?

PROCESS

Develop visuals
Introduce sketchnoting
Introduce visuals
Students assigned 9 sketches
Assessment
INTEGRATION OF SKN IN ECOLOGY

EXAMPLE

Hand outs

Developed in collaboration with designer and ecologist.
INTEGRATION OF SKN IN ECOLOGY

Prompts for sketches: An ecological concept, model or story about an ecological issue

Student Sketchnotes
RESEARCH STUDY QUESTIONS

1. What are students’ perceptions of Sketchnoting?

2. What is the relationship between the quality of Sketchnoting and content knowledge?
CONCEPTUAL FRAMEWORK

Cognitive Theory of Multimedia Learning (Mayer, 2005)

Deeper learning occurs - processing words and visuals.

Actively seeking and organizing

Deeper Learning
ASSESSMENT METHODS (IRB/ETHICS APPROVED)

• Pre-Post Test -
  • Frequently used and importance of learning strategies
  • Strategies to communicate science
  • Perceptions of sketchnoting

• Post Test Questions – views/perceptions

• Correlational analysis between scores on Sketchnote quality and content; IRR
STUDENTS PERCEPTIONS OF SKN (N=35)

• **Pre/post test** – No significant differences in student perceptions of Sketchnoting, strategies used for learning,

• **Post-test**: Over two-thirds of students found the technique to be helpful; 75% would recommend the course.

• **Themes:**
  - Sketchnoting required them to think differently; process information differently.
  - Need more time and guidance.
RELATIONSHIP BETWEEN QUALITY OF SKN AND CONTENT

Review of Three Assignments:

- Quality - Readability, use of page, purposeful color, balance
- Content – Contains essential elements; concept conveyed clearly.

- IRR for Quality = .75
- Low correlation between quality and content. More complex assignment; lower correlation; more time dedicated; higher quality.
LESSONS LEARNED

• Provide **ample time** for practicing
• Provide open Sketchnote sessions **outside class**
• Encourage Sketchnoting for **studying**
• **Slow down** lectures to allow for additional note-taking time
• *More information needed to validate theory*
IMPLICATIONS FOR FUTURE PRACTICE

CROSSING BORDERS

On campus & beyond
IMPLICATIONS FOR FUTURE PRACTICE

CROSSING BORDERS

FastCompany

Interview about sketchnoting and doodling
LESSONS LEARNED ABOUT BORDER CROSSINGS

- **Disciplinary Borders** – Equal respect for content.
- **Learning Borders** - Legitimizes visual/drawing as a potential to enhance learning.
- **Expertise/Novice Borders** – Allotment of time, learning while teaching.
- **Doing/Assessing Borders**– Considering details of data collection/alignment of research and data.
HOW TO GET STARTED

Practice Sketchnoting // Great Sources

Eva-Lotta Lamm
https://www.evalotta.net/
https://www.youtube.com/watch?v=wYYuBSoWou8

Mike Rohde
The Sketchnote Handbook and Workbook
www.sketchnotearmy.com
HOW TO GET STARTED W/ A COURSE

• Conduct an introduction session with your students *(or invite me to run a session :)*
• Slow down your lectures, provide time for sketchnoting
• Have students discuss on paper, take visual notes of their discussions
• Don’t judge their (or your own) style, every form of sketchnoting has merit. There is not right or wrong, only trying.
• Provide outside class opportunities
Let’s try it and get started

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**Sketchnoting**

**Warm Up**
- Draw some lines first, note, draw every line at a time. Then triangles, squares, and circles.

**Figures**
- Copy the lines, then draw your own.

**Creating Character & Hierarchy**
- Through developing your own fonts.

**Lettering**
- Upper case or lower case, draw every line at a time with intent. Create visual hierarchy through different sizes and shapes.

**Using Simple Shapes**
- Break down complexity through simple shapes. Copy visuals on the left to practice. Develop your own visual library to draw from.

**Observing the Differences**
- Learning when details are important or not.

**Frames**
- The bread & butter of design. Always write first, then draw the frame around text. Create frame through visuals.

**Containers**
- Write first, then draw the frame around text. Create frame through visuals.

**Why**
- Engaging, whole mind
  - Memory & retention
  - Drawing patterns & connections
  - Fostering sketch confidence
  - Fostering creative confidence

**When**
- During meetings
  - Capturing conversations
  - During lectures
  - Recording talks
  - Visualizing readings
  - Revising a syllabus

**How**
- Placing choice of information on page
  - Framing information in containers
  - Add visual indicators to core content
  - Draw connections
  - Large, asking
  - Create your own visual library & reference used images

**Note**
- Get the pens & inks
  - Get a light grey & one, coloring markers (gel or brush tip)
  - Use blank, cut-grid, or graph paper (no tattoos)

**Uncontrolled Lines**
- Draw every line at a time with intent.

**Outline**
- Bold, Light, Fast, Slow, Tall, Shaky, Highlight, Frame

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College of Fine Arts
NEXT STEP

Email us questions and comments:

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REFERENCES


