

Comparison Matrix and Venn Diagram: Making Comparisons in Flat Patternmaking.

April Elisha Stanley and Ellen McKinney, Iowa State University, USA

Key words: Comparison, Venn, flat patternmaking.

Innovative Strategy

The innovative strategy was piloted in an existing flat patternmaking course. In the current curriculum, students do not utilize any formal comparison tools to compare patternmaking concepts, i.e. dart types, stylelines, and so on. To engage students in making patternmaking comparisons, students were introduced to the use of a comparison matrix and Venn diagram. According to Marzano, Norford, Paynter, Pickering, and Gaddy (2001, p. 9), “comparing is a complex process that students need to learn about and practice.” These comparison tools would allow students to practice identifying and thinking critically about the similarities and differences of patternmaking concepts such as dart types and stylelines.

Purpose

A comparison matrix and Venn diagram were incorporated in the flat patternmaking course to teach students how to compare patternmaking concepts. The goal was to have students apply their knowledge of patternmaking concepts and examine the similarities and differences. The topics dart types and bodice stylelines were selected to have students use recent lectured concepts for practice in comparison applications and practice critical thinking skills.

Implementation

The instructor developed the comparison tools as documents in Microsoft Word. The comparison tools were used in two consecutive class periods. In each class period, the instructor first delivered patternmaking content through a PowerPoint lecture. Then the students were introduced to the comparison tools as an in-class partnered activity. The instructor gave verbal instructions to the students. The handouts were given to each student, and the students were paired up with a classmate to discuss and complete the exercises. Students were told to reference specified pages in their patternmaking textbooks (Joseph-Armstrong, 2010) to complete the materials.

The comparison matrix (Figure 1) was created as a boxed graphic for identification containing images from Joseph-Armstrong’s (2010) patternmaking textbook and

Comparison Matrix for Dart Types

	Dart Types				
Picture of Dart Type					
Dart Name					
Dart Definition					
Sloper Required for Patterning					

References:
Marzano, R. J., Norford, J. S., Paynter, C. E., Pickering, D. J., & Gaddy, B. B. (2001). *A handbook for classroom instruction that works*. Alexandria, VA: ASCD.
Joseph-Armstrong, H. (2010). *Patternmaking for fashion design, 3rd ed.* Upper Saddle River, NJ: Prentice Hall.

Figure 1 Dart Types Comparison Matrix

analysis of dart types. The Comparison Matrix for Dart Types required students to utilize the provided images of dart patterns to find and fill in information for the dart names, definitions, and the sloper required for patterning each design.

The Venn diagram was designed for comparing bodice stylelines (Figure 2). Students were introduced to the Venn diagram first using an instructional example to demonstrate the relationship and process of its usage. Then students were shown a general example of a Venn diagram for sandwich characteristics so that the students could understand the information with a common example. Next students were given a handout for the Venn diagram for Stylelines to discuss and complete with their assigned partner allowing students to practice a specific example for the patternmaking context. Then the instructor showed the students a completed example of the Venn diagram for Stylelines and discussed the results with the students.

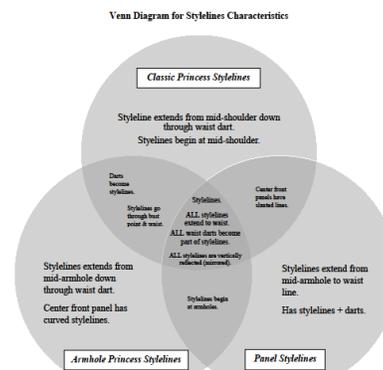
At the end of both activities, the students were asked to answer the prompt on a Student Thinking Assessment handout. The Student Thinking Assessment handout was created by the instructor as a tool for both student self-assessment and instructor assessment. The handout includes prompts and questions relevant to the class subject matter. This handout was altered for each lecture dependent upon the material being taught. The goal of this handout was to prompt student thinking about their learning and also provide the instructor with an assessment for later review. Then students were required to account for their learning by preparing to be called on at random by the instructor.

Effectiveness of Strategy and Future Plans

The use of these comparison tools introduced students to critical thinking of the patternmaking concepts and allowed instructor observations of student application and learning in the classroom. An inventory of student responses from the Student Thinking Assessment handouts was compiled by the instructor after the class period. This permitted further instructor evaluation of student comprehension and application of the patternmaking concepts. A student expressed, "It helped point out differences and similarities." Other students stated the tools were helpful as visual aids in understanding the characteristics of patternmaking concepts. The students were advised to keep the handouts for future reference.

References

- Joseph-Armstrong, H. (2010). *Patternmaking for fashion design, 5th ed.* Upper Saddle River, NJ: Pearson/Prentice Hall.
- Marzano, R. J., Norford, J. S., Paynter, D. E., Pickering, D. J., & Gaddy, B. B. (2001). *A handbook for classroom instruction that works.* Alexandria, VA: Association for Supervision and Curriculum Development.



Developed for Project LEARN™, Lewis State University. To be used with Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom Instruction that Works*. Alexandria, VA: ASCD. Joseph-Armstrong, H. (2010). *Patternmaking for fashion design, 5th ed.* Upper Saddle River, NJ: Prentice Hall. Analyzed and prepared by April Elinor Tisdale 2016 for apparel and fashion courses.

Figure 2 Stylelines Characteristics Venn Diagram