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Abstract

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Keywords

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Comments

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Innovative Strategy—Instructional Scaffolding

"Similar to the scaffolding used in construction to support workers as they work on a specific task, instructional scaffolds are temporary support structures faculty put in place to assist students accomplish new tasks and concepts they could not typically achieve on their own."
(Northern Illinois University, 2008)

Instructional scaffolds are designed to address what Vogotsky (1978) calls the zone of proximal development, the space "between what a student can accomplish unaided and what that same student can accomplish with assistance." (Caruana, 2012). Instructors who employ instructional scaffolding provide more assistance at the beginning of the learning experience gradually reducing that assistance as students are able to proceed unaided. The instructional scaffolding teaching technique has typically been used in grade school settings; however, the principles were thought to have applicability to undergraduate apparel patternmaking teaching.

Purpose of Strategy Apparel patternmakers must accurately complete tasks required for the making and completion of an apparel pattern to facilitate the flow of garment production from two-dimensional sketch to three-dimensional garment. A complex language of graphic markings (e.g. grain lines, buttonholes, etc.) and labeling (e.g. cut numbers, piece names, etc.), as well as skills such as trueing, blending, and walking seams, must be learned and correctly utilized. This is in addition to having to learn the correct process of pattern drafting, manipulation, and design from a given sketch. A basic apparel patternmaking course was selected for trial implementation of instructional scaffolding teaching techniques.

Implementation of Strategy The "zone of proximal development" was defined and then a "scaffold" was designed to improve learning. Students were familiar with the meaning of patternmaking marks and labels, due to their use of provided patterns in an earlier apparel construction course. However, based on two previous semesters, the instructor found that students struggled with knowing how to and remembering to apply all of the required markings, labels, and skills. Therefore, pattern completion was identified as the zone of proximal development to focus on. A 5-page instructional scaffold, "Completing the Pattern Checklist"(CPC), was developed which included checklist items for the following categories: (a) General Guidelines, (b) Grainlines, (c) Labeling, (d) Landmarks, (e) Square Perpendicular Seams, (f) Front Bodice Dart Point Locations, (g) Burn holes, (h) Notch Locations, (i) Seam Allowances, (j) Rabbit Punch Hole, (k) Pattern Hooks, and (l) Pattern Record Card.

An implementation strategy was developed to use the instructional scaffold CPC to improve student's understanding and application of apparel pattern completion skills, markings, and labeling:

1. Instructional demonstration of new content: During the first course session (prior to teaching any pattern drafting, or pattern manipulation skills), the instructor demonstrated the use of the CPC on an unmarked sloper block. The instructor explained concepts, purposes, and requirements related to each item on the checklist and demonstrated the task that was to be performed. Students were invited to ask questions and request repetition of tasks to increase understanding.
2. Group work: Students worked in small groups using the CPC to finish a different unmarked sloper block. This provided a second opportunity for understanding, clarification, and practice as students worked with peers.
3. Peer evaluation: Students first worked individually to complete an assigned garment pattern, referencing the CPC. Students then met with a partner to use the checklist to review and assist each other in completion of individual patterns prior to submission. This task further cemented their knowledge of patternmaking completion steps.
4. Individual learning: Throughout the semester, students used the CPC to complete their patterns. As the semester progressed in difficulty of patternmaking concepts and assignments, students were referred to the CPC in order to cement the required completion methods, markings and labeling. Towards the end of the semester, students were able to complete patterns appropriately without reference to the checklist, as evidenced by their performance on a closed-book exam.

Effectiveness of the Strategy in Fostering Desired Learning Outcomes Instructional scaffolding provided the organization, tools, and support necessary for students to progress from pattern users, to patternmakers with skills for professional success. The use of the scaffolding teaching technique allowed students to learn many new skills—pattern drafting, manipulation, and design without feeling overwhelmed by all the marking and labeling requirements. The CPC provided students with an understandable and familiar tool with which they could evaluate patternwork. Finally, the implementation strategy of progressive instructional methods delivered the content repetitively, yet from different viewpoints (instructor, group, partner) allowing the opportunity for clarification and greater understanding of the content. The instructor noted immediate improvement of student work from the semester's onset, when compared to previous semesters.

Plans for Continuation The instructor will continue use of instructional scaffolding with the progressive instructional method implementation strategy in the course. The instructor of the next level course—basic draping—has plans to implement a similar strategy in her course.

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