

## Collaborative Teaching, Learning, and Guidance from Industry Professionals in an Advanced Merchandising Math Course

V. Ann Paulins, Julie L. Hillery, Ashley Simon, and Aminah Shahzad  
The Ohio State University

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We developed an innovative and industry-collaborative approach to teaching Retail Merchandising Math (RMM) 2, a course that builds upon the prerequisite first basic retail math course. Historically, merchandising math is challenging for many students in fashion and retail studies programs (Flynn & Sandberg, 1993; Paulins & Moeller, 2017). Furthermore, it is challenging to recruit fashion students into buying and merchandising tracks as they perceive the associated curriculum as more (or too) rigorous compared to fashion design, visual merchandising, and product development paths. Designing merchandising mathematics courses to appeal to students, present industry-based relevance, and engage students sufficiently to gain authentic learning are important concepts for educators (Jacobs & Karpova, 2019).

Drawing from scholarly literature where the content of teaching retailing math has been a focus of best practices for about 30 years (Flynn & Sandberg, 1993; Garner & Buckley, 1988; Greene & Kirpalani, 2013; Jacobs & Karpova, 2019; Kapot & Reed, 2019) as well as from communications with industry advisory board members and internship supervisors, we were affirmed of the importance of students' knowledge of buying, assortment planning, and allocation. Desiring to effectively facilitate the students' applications of advanced merchandising math in a realistic industry-based setting, we embarked on this project that both assesses student learning and provides collaboration with industry professionals and with students in the first (basic) class by introducing interactive presentations throughout the semester.

The specific goals of this project were to: (1) design the RMM 2 course to teach buying, assortment planning, and allocation where students clearly understand its application to the industry, (2) motivate students in the RMM 1 course to continue into the next (elective) course while also supplementing the instruction of basic tools such as markup and 6-month-plans.

Our project was informed by Seitz and Razzouk (2002) who provided an experiential activity for their merchandising students – to run a store. In their course, students worked as members of a cross-functional team to execute various retail operations including planning, buying, and allocation. Kapot and Reed (2019) used collaboration in a retail math course where students developed 6-month-plans with Excel. Paulins and Moeller (2019) used active learning, including peer-to-peer mentoring, to enhance students' performance in merchandising math. The success of these curricular innovations inspired the project that we developed and implemented.

To achieve the goals of effective instruction and student motivation, we identified collaboration as a key activity (Laal & Laal, 2012). Two associate-vice-president level merchants were recruited (and eagerly accepted) to serve as consultants for the RMM 2 students who were assigned a semester-long "buying project." The students in the RMM 2 course were instructed to develop a store concept, identify specific departments within the store, and each serve as the buyer for one of the departments. As they (1) developed the store concept and embarked on trend analysis to present their merchandise selections, and (2) completed 6-month buying plans for

each department and the store as a whole, they presented their work to students in the RMM 1 class.

Step 1. A pre-course assessment was given to RMM 2 students on the first day. This was so that the instructor had a good understanding of the knowledge that students brought into the course, and was then well positioned to remedy concepts from the first class that needed more emphasis when rolling out the semester-long buying project. This pre-assessment revealed weaknesses in the 6-month planning concept but affirmed that students were well equipped with knowledge about mark-up and invoice mathematics. Instruction during the first weeks of the semester emphasized building 6-month plans using Excel so that the students would have skills needed and confidence in their abilities to complete the project. The pre-assessment also contained questions about the students' confidence in their knowledge about retail math.

Step 2. The buying project assignment was introduced and students began to brainstorm about the store that they would launch as a team. They were required to do market research to identify a location, develop their customer profiles, and determine the merchandise assortment plan, dividing merchandise types into departments that they would individually lead.

Step 3. Industry professionals visited with the students in the RMM 2 course to hear the ideas being generated by the students. The students were engaged in conversations with the industry professionals who asked probing questions, gave advice, and offered instruction about the implementation of concepts such as mark-up, promotions and mark-down strategies, sell-thru, etc. This activity, called "board meetings," continued at regularly throughout the semester.

Step 4. RMM 2 students presented their work to RMM 1 students twice. As noted above, first the students presented their store concept and merchandise assortment plans – emphasizing mark-up needed to obtain planned merchandise and sell it at the desired retail price. The first presentation included how planned sales were identified, how the store concept and its location were determined, and how the merchandise selection fit the target customers in the geographic vicinity of the store. The second presentation focused on the individual buying plans for each department and the ways the budgets provided a basis to determine OTB once assortments were generated and commitments were made. At both of the presentations, RMM 1 students were able to see the retail math concepts put into action by the RMM 2 students, who had to know the concepts well enough to teach them. The industry professionals were present for the presentations. They facilitated conversations among members of both classes and offered insights into how this work reflects "real industry practices."

Step 5 – Assessment of the Project. Assessments occurred in a myriad of ways throughout the semester. A post-test was administered to align with the pre-test for students in the RMM 2 course. The RMM 2 students themselves were engaged with the instructor to gather survey information for the RMM 1 students (their audience) after each presentation. The work of the students was assessed by the industry professionals, and student evaluations of instruction (SEIs) were administered at the close of the semester.

Results of the assessments were positive. Post-test instruments showed both student knowledge and student confidence in their ability to perform merchandising math and use Excel improved from the first day to the last day of the semester. For example, in the pre-test, several of the students shared that they were worried about using Excel because of their limited experience and familiarity with it, and several elaborated on their anxiety because they hadn't done really well in RMM 1. After the semester-long project, all students reported greater

confidence in their knowledge of retail math, their knowledge of Excel, and their confidence to perform well as a merchant in the industry.

Students in the RMM 1 class provided feedback on their surveys indicating that they were interested in the topics presented and they “learned so much” from the presentation. Our industry consultants were highly complimentary of the work performed by the students, noting that they will be far ahead of other new hires because of their sound understanding of buying, assortment planning, and allocation principles.

In summary, this approach allowed us to present the content clearly and in ways that made it relevant to students’ future careers. Overall, the approach bridges the gap between student classroom-based learning and industry applications.

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