

A Cafeteria for Learning

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Abstract

One-credit-hour modular courses are gaining popularity among students, faculty and administrators. The budget woes, declining FTEs and enrollments, and demands for time lead to curriculum reviews, with modules surfacing as opportunities and solutions. Modules extend core courses, are service classes to departments or specializations, introduce a curriculum, fill gaps in course offerings, and utilize all teaching personnel. Advantages of modular courses include scheduling and program flexibility, utilization of faculty strengths and their available time, plus focused, concise instruction. Disadvantages emphasize problems of assignments and learning outcomes, enforced prerequisites, and available texts for modular course time-frames and formats.

The modular course concept has been used quite effectively during the past decades in the agricultural curriculum. The modules (one-credit courses, usually taught consecutively three per semester, versus a three-credit course on a more in-depth or broader topic) have been popular as class enrollments in them have held steady during periods of declining student populations. This is especially so in broad-based curricula, such as agricultural economics or agricultural education, whereby specific materials are taught to non-majors whose focus may be on application of theory, rather than on the theory itself.

Why modules?

The 1990s brought renewed and heightened interest in modular courses for several reasons, including:

- * Budget woes, including hiring freezes and loss of funds for hiring temporary faculty (including adjunct faculty or sabbatical visitors) or paying teaching stipends to graduate students; in jeopardy are state and federal funds.
- * Declining FTEs, which may lead to shared distributions of effort (split appointments); retirements or loss of experienced faculty plus graduate courses that require a minimum of two faculty also compound the staffing equation.
- * Declining enrollments--in some cases, to no fault of the curriculum or faculty, but spiralling college expenses (tuition, books, housing).
- * Time constraints for performing other academic obligations, such as in administration or university service or extension specializations.

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Needs met by modules

Modular courses typically meet five basic needs of the students and faculty (or administrators who assign teaching responsibilities). The first need is for modules or courses that logically extend a "parent course." For example, a price or market analysis course may look more at the behavioral and/or theoretical relationships of prices and pricing factors, without extending the learning outcomes toward a specific commodity. Commodity marketing modules can focus on the uniqueness of the pricing and marketing system for specific commodities, such as dairy, grains, livestock or tobacco--thereby essentially extending a core course.

Secondly, these modules also draw non-discipline students (animal science, agronomy, horticulture, plant pathology or ag engineering to agricultural economics), depending upon the particular course prerequisites. Hence, the modules become service classes to students of these other departments. Similarly, modules in ag credit institutions or farm supply marketing or salesmanship give all students a peripheral view of agriculture from an agribusiness perspective, rather than the technical or biological viewpoint.

A third reason for modules is to provide introductions to a curriculum. Thus, the modules meet a functional need in giving students, primarily juniors and undeclared seniors, an opportunity to investigate a curriculum or employment opportunity that they may know little about, but wish to learn. Switching majors is not so disdainful when confidence in the decision has bonafide support.

Another type of need is to fill some gaps in the course offerings versus the students' desired learning outcomes. The topic area may be quite unique within a learning environment. Examples of these modules include income tax management, estate planning or farm labor management.

The final need for four- to five-week modules is to alleviate short-term situations in the utilization of teaching personnel. Modules efficiently use extension specialists and/or administrators and/or guest lecturers who may not be available for a full 15-week semester, but are available on a short-term basis.

Advantages and disadvantages

Advantages and disadvantages have been cited by prior authors on this subject of using modular courses in agriculture. Among the advantages reported for agricultural economics (Beck, 1982) and agricultural business (Lindahl and Nelson, 1982) are:

- * scheduling flexibility (for faculty and students);

- * program flexibility (for non-majors and electives);
- * utilization of administrators, extension specialists or part-time professionals;
- * improved instruction (concise, focused, narrowly defined instructional assignment); and
- * utilization of particular strengths or faculty backgrounds and interests to provide a more credible learning opportunity. Although this article has primarily addressed the use of modules in the social science arena of agriculture, modules have been shown to be effective in other curricula, such as in plant science and horticulture (Cotter, Mexal and Buchanan, 1989).

Of course, modular offerings are not without their disadvantages. Gleanings from the previously referenced articles suggest these disadvantages:

- * absence of text materials specifically designed and economically appropriate for either a short course or modular time-frame and format;
- * crucial prerequisites have to be specified and enforced--there isn't enough time to review "old" material because of the narrow topic focus and time element (nine 75-minute class periods);
- * work load (assignments and exams) can easily get out of hand, especially if instructor is thinking three-credit courses instead of one-hour modules--the work load and learning expectations must be commensurate with the amount of credit at stake; and
- * once in the course curriculum, students may find the modules either too specialized or too many offered, leading to some modular courses being dropped due to poor enrollment--constant revision of curriculum is necessary during changing times.

Closing comments

In spite of potential problems, one-hour modules are a vital component to many undergraduate course offerings. Students and their advisors like the modular courses, and faculty have responded favorably as well. The 1980s witnessed an expansion of the modular courses, many by first time participants. The 1990s may see further introductions of modular courses, both by expansion of the offerings available among those curricula already sold on modules as well as those seeking opportunities from a budget weary environment.

Literature cited

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Student Characteristics and The Crossword Puzzle as a Teaching/Examination Tool

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Abstract

A single study was conducted to determine if one or more individual characteristics, or personality traits, influenced the student's ability to successfully answer questions presented in the form of a "crossword puzzle" (XWP), relative to the same questions presented in the traditional "fill in the blank" (FIB) format. The study involved 41 undergraduate students enrolled in an upper level Anatomy/Physiology course. Students were identified according to age, sex, major, class rank and the Myers-Briggs Personality Type Indicator. The data presented supports the conclusion that exams presented in the XWP format, relative to the FIB, enhance the student's success rate at acquiring the correct answers. Furthermore, XWP appear to reduce the variability in performance relative student personality type and/or learning style.

Introduction

Several characteristics and/or personality traits have been shown to influence students' success rate on exams (Minninger, 1984, Lawrence, 1986). More importantly, students are compelled to learn in a manner consistent with their personality and/or the teaching style of the instructor (Golay, 1982). As a result, instructional material is generally not presented to students in a manner conducive to all learning styles. More recently, studies involving the Myers-Briggs Type Indicator (MBTI) suggest that personality traits markedly influence the student's method and motivation for learning (Golay, 1982; Lawrence, 1986)

In a prior publication (Borcher et al., 1992) it was suggested that students taking exams in the form of a crossword puzzle (XWP) were significantly more successful at deriving the correct answer, than those taking the same exam presented as "fill in the blank" (FIB). The present study was designed to determine if the specific characteristics of age, gender, curriculum major, class rank and/or personality traits (MBTI), influence the student's competitive success on XWP versus FIB exam format.

Methods

The study was conducted to determine if one or more individual characteristics, or personality traits, influenced the student's ability to successfully answer questions presented in the traditional "fill in the blank" (FIB) format versus those same questions when presented as a "cross-

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