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Planning introductory college courses: Content, context and form

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Abstract. Course planning is an important faculty role requiring expertise and effective decision-making. Despite the centrality of planning activities in the teaching-learning process, relatively little research has explored the process by which instructors in higher education plan their classes. Thus, the author and colleagues pursued a three-year series of studies of college instructors in the US who were teaching introductory classes. The study explored faculty members' underlying assumptions about planning and their decision-making processes. This chapter summarizes these empirical studies that inform us about the general and discipline-specific purposes faculty express for their classes, the contextual influences that modify their intentions, and the way they arrange discipline content for teaching. A key finding was that differences in course planning reflect varied assumptions about students and about their discipline that faculty in different fields bring to the planning process and which strongly influence them.

Keywords: course planning, curriculum, faculty

Introduction

Courses are academic plans purposefully constructed to facilitate student learning.[1] Course planning is an important faculty role requiring expertise and effective decision making. Yet most attempts to improve teaching and learning in colleges have focused on the teacher's role as 'classroom actor' rather than as 'academic planner.' In an extensive review of the existing literature in 1986 my colleagues and I found several studies of teacher planning and thinking in lower education, but only one study of college teachers' course planning (Andresen et al., 1985; Powell & Shanker, 1982). Since little was known about the assumptions on which teachers base course planning, my colleagues and I conducted a national study of introductory course planning in the United States to fill this gap. We felt that the results would be important to college officials as they try to support excellence in teaching, learning, and curriculum planning. Certainly the way that content is selected, arranged, and communicated to students affects student learning. Our study was designed to increase knowledge about how and why college teachers make these course decisions.[2]

We have found that teachers' beliefs strongly influence the way they enact their professional roles. Teachers' disciplinary socialization and their current beliefs about the fields they teach influence how they plan courses as well as how they teach them. To a lesser extent, the context in which teachers work shapes how the courses are planned and taught. These findings help us understand that instructional design is not only a science but a creative act linked to teacher thinking that must be examined contextually. Thus, course planning is not amenable to a single formula or prescription. Understanding that these differences based on beliefs are both pervasive and permissible can, however, lead college and university teachers to examine their own assumptions, to consider alternatives to their usual practices, and to be more self-reflective about their own professional practice. Consequently, while our study focused on the process of course planning, rather than a specific aspect of teacher thinking or a particular belief, it adds to the considerable accumulation of knowledge about the impact of teacher beliefs.

Study questions

We asked:

- What goals do teachers have for their introductory courses?
- What influences teachers as they plan their courses?
- How strong are the various influences?
- Do course planning influences and processes differ for teachers teaching various subjects and in various types of colleges?
- How adequately do teachers communicate their plans to students?

We defined curriculum as an academic plan which can be devised for the course, program, or college level.[3] We further defined course planning as the decision-making process in which teachers select content to be taught, consider various factors affecting the teaching and learning process, and choose from among alternative strategies for engaging students with the content. We were especially concerned with planning decisions that teachers make before the first meeting of the course.

Our work was initially guided by the writings of others from whom we adapted ideas as needed to be relevant to college teaching. Most prominently, these included various conceptions of curriculum purposes (Eisner & Vallance, 1974; Dressel & Marcus, 1982), characteristics of the disciplines (Phenix, 1964, Dressel & Marcus, 1982), sequencing of subject content (Posner & Strike, 1976; Posner & Rudnitsky, 1982), and general views of the course design process (Toombs, 1977–1978).

Data sources

The first phase of the study was a set of interviews designed to increase our understanding and assist in developing a survey instrument. In this exploratory phase we interviewed 89 faculty members teaching introductory courses at eight institutions (Stark et al. 1988a&b). The institutions included community colleges, liberal arts colleges, comprehensive colleges, and doctoral universities. We did not include research universities where many introductory courses are taught by graduate assistants not fully responsible for planning them. The teachers selected by their institutions as 'typical' taught introductory courses in biology, business administration, English composition, history, literature, nursing, mathematics or sociology. We also examined 73 introductory course syllabi contributed by these faculty members.

The second phase of the study was a survey of faculty members (both full-time and part-time) teaching twelve types of introductory courses in a sample chosen to be nationally representative of colleges in the United States, except research universities (Stark et al., 1990a&b). Colleges in a 10% stratified random sample of institutions (267 colleges and universities) were invited to select all faculty members teaching specific common introductory courses and ask them to participate in the survey. Ninety-seven colleges agreed to participate and we received responses from 2311 faculty members (about a 60% response) teaching introductory courses in twelve fields: English composition, literature, history, psychology, sociology, biology, mathematics, fine arts (history or appreciation), romance languages, educational psychology, nursing, and business. Of these courses, 85% were reported by the faculty to be general education courses, 10% were introductory courses in a major field, and 5% were developmental (remedial), usually in English composition or mathematics. The participating colleges resembled the originally invited sample on key institutional variables (control, selectivity, location, accrediting region, percent of commuting students, state control), and the demographic characteristics faculty members reported on the survey indicated they were typical of faculty in these types of U.S. colleges (average age 46 years, average teaching 12 years; 75% full-time teachers). The teachers' personal and professional characteristics varied by gender, degrees held, and part-time status, reflecting variations in different disciplines and types of colleges. For example, the sample of teachers from English composition included many more part-time women teachers without doctoral degrees than other fields, as is actually the case.

The Course Planning Exploration survey posed sets of questions about teachers' perspectives on the nature and content of their academic field, beliefs about the purpose of education, preferred ways of arranging course

content, program and college context for course planning, and typical course planning activities.

In a Phase Three follow-up study, 322 four-year college faculty members who answered the original Course Planning Exploration for an introductory course voluntarily answered an identical survey about planning an advanced course in the same field. A merged database was created for the 288 general education faculty members (the three professional disciplines and fine arts were eliminated because of small sample size) so that their responses for introductory and advanced courses could be compared directly for each discipline. The advanced courses reportedly were smaller (average of 20 students compared to 49 for the introductory courses) and 60% of them were primarily for majors in the field. Comparisons were made on seventeen factor-based indices derived in the Phase Two study of introductory courses.

Teachers' goals for introductory courses

In exploring teachers' goals, we built on the theoretical work of Eisner & Vallance (1974) and of Dressel & Marcus (1982). Both of these pairs of writers presented conceptions of curriculum purposes which we adapted and expanded through our own Phase One interviews to encompass a broad range of conceptions of purposes of college study.

Over 90% of the introductory course teachers endorsed a global statement that "teaching students to think effectively" was a very important goal. Other broad goals for education, such as "helping students to clarify values and make commitments," "helping students learn to make the world a better place to live," and "teaching students the great ideas of humankind" were also considered quite important and were endorsed by 50 to 60% of the teachers. Notably fewer teachers (<35%) felt that they intended to "help students gain personal enrichment" or "prepare students directly for jobs." Distinct discipline variations were evidenced in the goals that faculty members chose as their second most important goal, that is, after the first-ranked goal of teaching students to think effectively. For example, teachers of English composition, literature, sociology, psychology and fine arts frequently endorsed personal enrichment as an important educational purpose; mathematics teachers definitely did not.

When asked to contribute two goals for their course in their own words, teachers conveyed a different view of their intentions. Based on an extensive content analysis, 58% of the goals provided by the 2105 teachers in the nine general education fields (the three professional fields with small sample sizes were omitted from this analysis) focused on conveying to students basic communication skills or concepts and knowledge in the field.[4] For

these disciplines, the next largest percentages of contributed goals involved effective thinking (15%), students' personal and social development (9%), and their intellectual development (8%) (Eljamal et al., 1998; Eljamal et al., 1999). The types of goals contributed differed substantially by discipline. Teachers of English composition, romance languages and mathematics notably emphasized basic skill development as well as knowledge acquisition. Teachers of biology, fine arts, history, psychology, and sociology were most likely to emphasize knowledge acquisition. Composition, mathematics and history teachers also emphasized effective thinking more than other fields. A different pattern was demonstrated by teachers of English composition and literature who far more often than others contributed goals emphasizing students' personal or intellectual development.

These two sets of responses led us to conclude that varied purposes of education are important to teachers in these several disciplines but, when they are asked to contribute their course goals directly, most think first of conveying the skills and concepts of their discipline.

Origins of teacher goals

The teachers reported that their academic disciplines exerted the strongest influence on their course planning. The views teachers held about the nature of their discipline are intricately linked with their beliefs about the purposes of education. Many teachers felt that these disciplinary influences were strongly rooted in their own scholarly background and were especially dependent upon their preparation (as either a scholar or a practitioner) and their prior teaching experience. A very few faculty members in special circumstances (particularly those teaching in history or sociology or at religious colleges) felt that they were influenced by their religious, political, and social beliefs. In contrast, less than ten percent of introductory course teachers felt the institutional mission affected their educational beliefs as they plan courses. Gender, age, academic rank, tenure status, and length of teaching experience also were essentially unrelated to teachers' beliefs about education, their discipline views, or their course planning. Less than one-third of college teachers reported that pedagogical training had an influence. Those who did so were disproportionately teaching in English composition, mathematics and professional fields and often had lower school teacher training while lacking the doctoral degree. A few teachers told us that they had very negative views of pedagogical training, sometimes reinforced by courses or workshops they felt were unproductive.

How disciplines influence teachers' goals

Extensive research has explored how discipline differences influence the ways faculty members conduct and publish research. Several reviews of this extensive body of empirical literature exist, the most recent by Braxton & Hargens (1996). At the time we began our studies, the literature on discipline differences in course planning and teaching was much less developed. Both Phenix (1964) and Dressel & Marcus (1982) had developed rationales explicating how discipline characteristics might strongly influence teaching. They supported their work with logical analysis and anecdotal observations rather than with empirical results. Through statistical techniques such as factor analysis, we hoped to use faculty self-report data to confirm and extend these conceptual frameworks.

When teachers are compared by academic field across colleges, there are few differences in course planning associated with the type of college in which the faculty member teaches.[5] Clearly, discipline is the key predictor of classroom goals and beliefs about education while other factors have a much smaller influence.

We found that teachers endorse one or more of three views of their academic discipline and these views are related to how they express their goals. In *View 1*, teachers see the field as an organized body of knowledge, that is, an interrelated set of concepts, ideas, operations and principles to be transmitted to students. Although the majority of teachers of introductory courses in our study saw their teaching field this way, this view of the field as a body of organized knowledge was most pronounced in biology, mathematics, nursing and psychology. In *View 2*, teachers view the academic field concurrently as a group of individuals exploring common related interests and values, as a set of phenomena these individuals are trying to explain, and as a mode of inquiry. Teachers in biology, history, literature, psychology and sociology are more likely than others to see their field in this way. In *View 3*, teachers view the field as a set of skills to be mastered and applied. In our sample, this view was held primarily by teachers in English composition, mathematics, nursing and romance languages. At least with respect to planning their introductory courses, over 80% of those teaching in these disciplines viewed their field as a set of skills rather than as an organized body of knowledge. This view was clearly reflected in the types of goals and beliefs about education they expressed.

The process of course planning

Most teachers in our study believe they have considerable autonomy in course planning.[6] Mathematics, language, and English composition teachers

Table 1. Steps college teachers take in planning courses

	Step taken (in percent)	Step taken first (in percent)
Select content	85	46
Consider student characteristics	69	15
Consider how students learn	67	9
Establish objectives based on own background	61	16
Select materials and activities	59	6
Examine previous student evaluations	42	1
Base objectives on external influences	35	6

reported the lowest perceptions of autonomy because they provide services to a very wide range of students, teach multi-section courses that are also taught by others, and prepare students for later courses. The vast majority of faculty report planning their courses informally (sometimes while engaged in other life activities) and shared with us the steps that they take in the process (Table 1). Consistent with their emphasis on discipline as an organized body of knowledge to be learned, a large percentage of teachers (46%) select content as the very first step. Another 16% said they first establish course objectives based on their own background, including both scholarly training and teaching experience. An additional 15% said they consider student characteristics as a first step. In all, more than 50% of the teachers said that at some point in the process of course planning they select content, consider student characteristics, consider how students learn, establish objectives based on their own background, and select materials and activities. However, less than 50% examine previous test results, previous student evaluations, or consider external influences.

There were statistically significant differences among the disciplines on the extent to which teachers reported all the steps of course planning except using previous student evaluations. Faculty members teaching skill-based courses like English composition, foreign languages, and mathematics were least likely to emphasis content selection but more likely than their colleagues to consider student characteristics, especially student preparation. Mathematics teachers were also most likely to report that they based course objectives on external influences, while teachers in other fields were more likely to establish course objectives based on their own background. These differences undoubtedly reflect the fact that most mathematics teachers in our survey (and to a lesser extent teachers of composition and language) were

obliged to teach introductory courses far removed from their own disciplinary interests to a wide range of students rather than to potential majors in their fields. Perhaps also because of this student diversity, composition and language teachers, as well as psychology faculty members, were most likely to report that they considered how students' learn as they planned courses. Sociology, biology and language teachers tended to select materials and activities early in the course planning process, especially choosing textbooks which may guide their planning.

Since teachers tend to teach the same courses each year, much of their annual planning is fine tuning. They tend to believe that the students entering their courses are similar from year to year. In our interviews, however, we found, that major overhauls of courses are taken for several reasons related to their satisfaction with how a course is going. We heard teachers describe four different levels of course planning. The most common level is "routine maintenance" which occurs when teachers are satisfied with the overall objectives and framework of the course but sense the need to adjust or update materials or content. A second level is "routine review" which occurs when a teacher or the department has established a systematic procedure for periodic examination of courses. Routine review may or may not stimulate changes beyond those of routine maintenance. "Major revisions" may be stimulated by dissatisfaction with course objectives, processes, or content. Finally, "planning a new course" may be undertaken to respond to new goals, objectives, activities, experiences, or clienteles. Both planning a new course and major revision of an old one require more intense effort than routine maintenance and may generate considerable creativity and enthusiasm. It appears that course goals and objectives most typically are made explicit during new course planning but are seldom redefined during the more routine types of planning activities.

As college teachers plan courses they seek little help from others. When they do, department colleagues are considered by far the most helpful source of advice, and often the only source. Teachers reported little influence in their course planning from reading literature on teaching and learning, either in their disciplines or generally. The exceptions were teachers in educational psychology and nursing who often are familiar with this literature through formal educational training. Available services to help teachers plan courses were limited on most of the campuses in our survey, and even on campuses where such services existed, teachers tended not to use them.

Influences that modify teachers' goals in course planning

By exploring teachers' responses to a lengthy list of potential influences, we identified through factor analysis eight reliable contextual influences on

Table 2. Contextual influences on teachers' course planning

Rank of important influence	Type of influence
1	Student characteristics
2	Student goals
3	Pragmatic issues
4	Influences external to the college or university
5 (tie)	Program and college goals
5 (tie)	Advice available on campus
5 (tie)	Literature on teaching and learning
6	Facilities, resources, opportunities, assistance

course planning (Stark, Lowther, Bentley & Martens, 1990). These influences are listed in Table 2 in order of reported and relative strength of influence among all teachers in the survey. With the exception of external influences, the contextual influences on course planning were essentially unrelated to college type, enrollment, or selectivity. However, teachers in different fields reported varying amounts of influence from each of the sources.

Teachers reported that, after the very strong influence of their discipline, student characteristics exert the next strongest influence on their course planning. These characteristics included student ability, preparation, interest, and anticipated effort in the course. Compared with other fields, teachers of English composition reported the greatest influence from student characteristics, possibly because their courses include all beginning students and can be quite heterogeneous.

Student goals for their education, career, and life exerted only a modest influence on teachers as they planned courses. This might be expected for courses in the general education program. Not surprisingly, these goals were more influential for those teaching introductory courses in the few professional fields included in our study – business, nursing, and educational psychology. Student goals were least influential for mathematics teachers and for those teaching in the most selective institutions, such as prestigious liberal arts colleges and doctoral universities.

A modest number of teachers attributed importance to external influences. Among these, teachers in less selective colleges reported little influence from research agendas but strong influence from the state, accreditors, and professional associations, as well as admissions requirements from colleges their students might next attend. Teachers in professional fields subject to accredi-

tation and labor market pressures, such as nursing and business, felt external influences more strongly than those in liberal arts fields such as arts and literature.

More than 90% of the teachers reported that teaching is a major mission of their college and program and 20% also reported a strong research mission. (Recall that research universities were not included in the study.) But only a modest number of teachers reported that the college mission was influential in their course planning. Program and college goals influenced course planning most when teachers felt that the mission was distinctive and well understood (most often in small private colleges) or when program coordination was strong (least likely to be true in larger doctoral and comprehensive institutions). In general, teachers reported that course-related decisions are made within their academic program unit, not outside it, and that their unit, rather than the college as a whole, coordinates student programs. Program goals clearly influence planning more than college goals do, typically reinforcing the influence of the discipline.

The textbook (included among pragmatic issues in Table 2) was a strong influence on course planning and, according to many reports, it is becoming a stronger influence as publishing companies package textbooks with many auxiliary aids. Teachers felt that other pragmatic issues such as class size, workload, and tenure pressures influenced course planning modestly. Facilities, and resources generally, were not often considered influential by teachers as they planned their courses. These findings seemed counter-intuitive until we realized that teachers tended not to recognize many pragmatic factors and resource constraints on their planning or to accept them because they are so traditional and familiar (such as length of class periods and timing of vacations). They did report these factors as influences if recent changes had occurred or, in the case of facilities like computers, those that were previously available were suddenly were lacking, in times of budget constraints. Of course, the strength teachers attributed to external constraints varied by discipline. Not surprisingly, biology teachers and arts teachers felt the influence of facilities strongly, while mathematics and composition teachers seem to pay little heed to such arrangements.

Selecting and arranging content for teaching

Teachers' views of their academic field and the educational purposes they endorse are closely linked to the reasons they select subject matter for their introductory courses. We asked our survey respondents to rate the importance of a variety of reasons for selecting course content. The proposed reasons drew substantially on ideas from learning theory as well as recent discussions in the United States about curricular coherence, integration,

Table 3. Reasons college teachers selected course content

Discipline view	Selection of content		
	Promotes intellectual and personal development	Promotes learning of concepts and operations of organized field	Promotes vocational and/or skill development
Discipline is a set of skills	Composition Romance languages	Mathematics Nursing	Mathematics Nursing
Discipline is an organized body of knowledge	Sociology Psychology	Sociology Psychology Biology Mathematics	Nursing Business Educational psychology
Discipline is a group of scholars with related interest in understanding the world	Literature Fine Arts Sociology History	History Psychology Biology	Educational psychology

and 'connectedness'. Three rationales for selecting course content predominated and paralleled the types of beliefs and goals about education the same teachers had endorsed. *Rationale 1*: It is important to help students learn and interrelate disciplinary and interdisciplinary concepts, ideas, and modes of inquiry. *Rationale 2*: It is important to foster students' personal and intellectual development, including their search for meaning, ability to integrate ideas, awareness of diverse viewpoints, and their desire to continue investigating ideas independently. *Rationale 3*: It is important to encourage students in their search for an appropriate career and in their vocational development. Although teachers in some disciplines were much alike in their responses, sufficient variation occurred among teachers in other fields to merit placing the field in more than one cell in Table 3 below which illustrates the distribution of fields by both content selection rationale and discipline view.

Teachers chose various ways of arranging course content that also are consistent with their discipline views and educational beliefs. We adapted a set of ways of arranging (sequencing) course content from work by Posner and his colleagues (Posner & Strike, 1976; Posner & Rudnitsky, 1986) and from Dressel & Marcus (1982). The percentage of our sample of teachers that chose each rationale for content arrangement as "very much like my own" is

Table 4. Ways college teachers preferred to arrange content

Arrangement based on	Percent choosing "very much like my own course"
The way concepts of the field are organized	71
To help students learn	57
The way the knowledge is in the 'real world'	49
The way knowledge is created	33
To help students use knowledge	31
To help students clarify values	30
Students' vocational needs	20

given in Table 4. (Keep in mind that our study included mostly teachers of general education subjects; professional courses were underrepresented.)

Discipline variations in the way teachers preferred to arrange content parallel their educational beliefs and views of their discipline. As in our previous analysis, teachers of English composition, mathematics and romance languages stood out because they were more likely to base their content arrangements on how students learned than were teachers in most other fields.[7] Teachers in history and fine arts (many of which were historically-oriented appreciation courses) differed from others in placing more emphasis on arranging content according to the way the field is structured, and the vocational fields of nursing, business, and educational psychology placed slightly more emphasis on students' vocational needs.

Communicating course plans to students and monitoring learning

According to learning theorists, students learn more effectively when they understand the reasons underlying instructional tasks and consciously select appropriate learning strategies (Weinstein & Mayer, 1986). This implies that teachers should share with students an understanding of the intended learning objectives and how the teacher expects them to be achieved. From a different perspective, this notion reinforces the idea that teachers should make their expectations clear for students at the course level. Consequently, we asked teachers about ways that they communicate their course goals and intentions to students.

More than 60% of the teachers relied heavily on each of the methods for communicating goals that we included in the survey. They describe their goals in detail in the course syllabus, stress them during the first lesson in the

Table 5. Items included in course syllabi

Item of information	How often in the syllabus
Basic course information	Often
Course calendar	Often
Information about textbook	Often
Information about discipline content	Often
Instructional methods or plans	Often
Feedback to student	Often
Requirements of student	Often
Course goals and objectives	Sometimes
Educational philosophy of teacher	Sometimes
Rationale for course content	Sometimes
Learning resources and facilities	Seldom
Supplementary readings	Seldom
Influences on course structure and plans	Seldom
Rationale for arranging course content	Seldom

course, and periodically thereafter. They discuss them specifically in relation to course assignments and devise course assignments that allow students to infer the goals.

Using course syllabi

When interviewing teachers in the first phase of our study program, we also collected 73 course syllabi. We constructed a comprehensive checklist of items that might be in a syllabus for ideal communication of the teachers' intentions to students. Our checklist, shown briefly in Table 5, included some items based on the theory that college students will learn better (be more intentional in their learning) if they fully understand their teacher's intentions. We did not really expect to find many syllabi that included all of the items in our list. Although many syllabi were quite elaborate, others were extremely skimpy. None of the syllabi we collected included all of the elements in our idealized checklist. Table 5 shows roughly the frequency with which teachers used the syllabus to communicate the specific item of information.

Monitoring learning

Psychologists tell us that student engagement with the subject is necessary for effective learning (Astin, 1984). This idea received much publicity and

strong endorsement in the United States following the publication of the government report *Involvement in Learning* in 1984. Reflecting this national attention, we asked teachers how they knew that students were involved in learning. Teachers reported that they use informal methods in which they have great confidence, mostly based on their own observations. The monitoring observations teachers use most often (more than 70% of teachers reported them) include watching students' faces, observing course attendance, and observing student participation in course discussions. Fewer than 40% of the teachers rely for information on student office visits, frequency of completing assignments, students' papers, themes, journals, and quizzes.

Over 80% of the teachers said that to provide assistance they provided structure to clarify material, tried to find ways to motivate students, showed enthusiasm for their subject and personal concern for students, and tried to provide a role model. Over 50% scheduled extra help sessions. Given these high percentages, discipline differences were not important.

Do course level or faculty status make a difference?

Logically, one might expect that teachers planning advanced courses would consider different issues than those planning introductory courses. For example, based on the well-known taxonomy of educational objectives by Benjamin Bloom and others, introductory teachers might emphasize elementary skills, vocabulary and basic knowledge to be recognized and recalled. Teachers of more advanced college courses might be more concerned with the ability of the students to analyze, to synthesize and to apply the material taught. They might also spend more time helping students to understand the mode of inquiry, or how new knowledge is created in their discipline.

Course level

When answering the Course Planning Exploration Survey for an introductory course, over 80% of the teachers speculated that their responses for an advanced course would be quite different. In fact, our follow-up study after several months showed only modest differences when the same teachers focused on an advanced course. We summarize a few of the differences here from our analysis that considered each discipline separately. (For details see Stark & Shaw, 1990.)

We had expected that teachers' views of their fields would be constant, while the way they portrayed the fields might differ when teaching advanced courses. In fact, teachers in composition, mathematics, biology and romance

languages indicated that they actually view their fields differently at the advanced level. Specifically, for advanced courses, they see the field less as a set of skills to be taught and more as an interrelated set of scholarly interests and values. For these fields, it is most important to teach skills in the introductory courses, while concepts, principles and inquiry can be taught in the advanced courses. For other fields in our study, teaching concepts, principles and inquiry seems to predominate at both levels.

Effective thinking was the educational purpose that teachers selected as most important for both advanced and introductory courses. However, in a few fields (history, psychology, biology) teachers placed more emphasis on helping students in introductory courses develop intellectually, learn to bring about social change, and clarify values, possibly because these types of development are considered the mission of the general education program. In a reverse pattern, romance language and composition teachers more strongly endorsed purposes such as personal enrichment, clarifying values and teaching the great ideas of mankind for advanced courses. It appears that they cannot achieve these purposes until basic language skills have been developed.

Teachers reported the influence of student characteristics, external influences, facilities, and use of available advice to be essentially the same for introductory and advanced courses. An exception was English composition teachers who paid more attention to student needs in introductory courses. Pragmatic factors, such as course size, faculty workload and scheduling were more potent influences for introductory courses only for biology and mathematics teachers. Teachers in several fields also indicated that they spent more time stressing their goals and objectives for students in introductory courses. As they chose methods of arranging course content, romance language and English composition instructors moved from arrangements in introductory courses based on how they thought students learned best, to arrangements in advanced courses based more on the structure of the discipline or the creation of knowledge. While there were few differences in the ways faculty provided instructional assistance and monitored student learning, teachers of romance language, mathematics, and composition more often depended upon frequent quizzes in introductory courses.

The few differences we found in teachers' planning by course level occurred primarily in courses that are strongly skill-based at the introductory level and become less so at advanced levels. In general, the differences faculty members reported seemed to fit the actual differences between larger courses with diversely prepared students in introductory general education, and smaller courses with better prepared students in upper division courses for majors. Appropriately, the influence of college mission was stronger for

the introductory general education courses serving a broad range of students. The influence of program mission and discipline remained constant and important.

Full-time and part-time faculty

Most studies of college teachers in the United States include only full-time faculty. One reason is that the part-time teaching population is unstable; colleges employ different part-time teachers each term. Our insistence on understanding course planning among both full-time and part-time teachers caused some institutions in our random sample to decline participation rather than try to compile a list of all the part-time teachers for a course. But the use of part-time teachers is growing rapidly and our data base is one of very few that allows their comparison with full-time teachers on a substantive aspect of their teaching role, beyond demographic characteristics. With the exception of one Canadian study (Warme & Lundy, 1988), higher educators appear to have assumed, without evidence, that part-time faculty are inferior teachers.

Overall, 23% of the teachers completing our course planning survey were part-time. For the eight fields in our study where more than 20% of the respondents were part-timers, we compared their course planning attitudes and influences with those of full-time teachers (Lowther et al., 1990). Based on the 20% criterion, the four fields not included in the comparison were literature, biology, educational psychology, and nursing. In the eight fields compared, 39% of the community college teachers were part-timers while other types of colleges employed up to 26% of part-time faculty. In English composition, the most frequent teaching assignment for part-time teachers, the percent of composition teachers varied by college type, up to 50% at community colleges.

As one would expect, full-time and part-time teachers differed on personal and professional background in almost every field. Part-timers were significantly more likely to be female, non-tenured, and without any regular academic rank. They less frequently possessed the doctorate, more often had taught in high school, and had much less experience teaching in college. Wide variations occurred among fields. For example, 82% of the part time business faculty were men but only 17% of the romance language teachers were men.

When each discipline was considered separately, the full-time and part-time teachers differed very slightly in the course planning behaviors and influences they reported. Part-time teachers were more concerned with student's vocational development and value development. They reported stronger influences from sources external to the college such as employers or professional groups. Part-timers attempted to seek help available on campus for course planning more often than did full-timers, probably because they had fewer

colleagues to call upon. But, overall, we could not statistically distinguish between full-time and part-time teachers in any field on any major aspect of course planning. At least on this one aspect of their instructional duties, we found no evidence of the inferiority of part-time teachers.

Limitations

We have summarized self-reported behavior of college teachers when planning their courses in 1987–1990. Most of the important influences on teacher thinking, especially their scholarly training and disciplines, have changed little so we would expect similar results today. Yet, if this same survey were conducted in 1999, instructional technology and related facilities undoubtedly would be reported as a stronger influence on course planning. Additionally, during these ten years, college reform efforts in the United States have increased teacher awareness of the possibilities of both assessing student learning outcomes and of using active instructional techniques such as collaborative learning and small group discussion. Thus, we might expect that teachers would report somewhat different ways of gathering feedback on student progress and of arranging course content. As in any survey, there are questions we might have asked differently. Following the study, we revised the Course Planning Exploration, to make it useful for other researchers who might wish to replicate our work.

Our study probably under-samples the number of part-time teachers nationally because of the reluctance of colleges with high numbers of such teachers to put forth the effort to locate them and distribute the survey to them. In the same way, the willingness of some colleges to participate probably biases our data slightly toward institutions where the chief academic officer is especially interested in teaching and felt it important to commit staff time to participate in this study.

Our follow-up study of advanced course planning depended on volunteers who had indicated their willingness to answer the entire survey a second time for a diffferent course. We assume that our respondents followed instructions and did not refer to any copy they had retained of their first survey response but such reference is always a source of error in a repeat survey.

Discussion and implications

This research confirmed previous studies asserting that course planning by college teachers is closely related to enduring assumptions embedded in the disciplines and educational beliefs to which faculty members have been

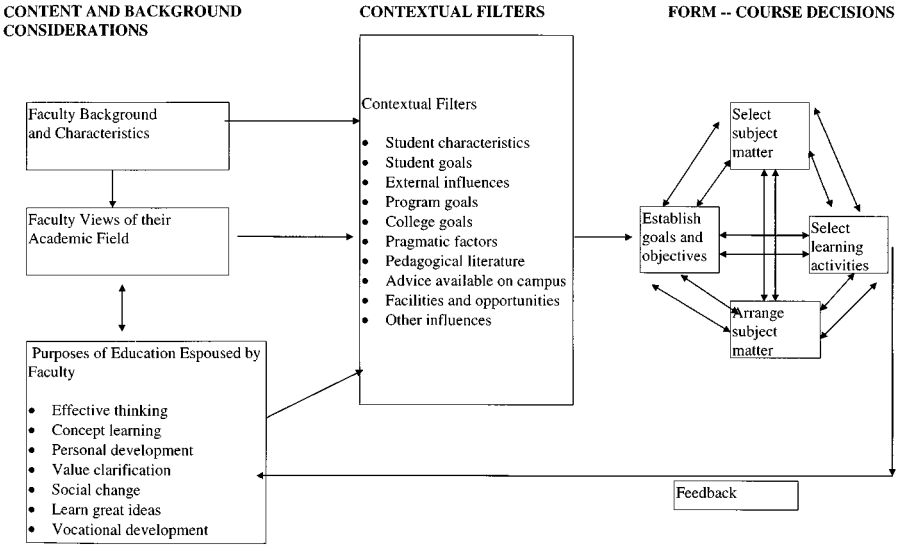

Figure 1. The Contextual Filters model of Course Planning.

socialized (Dressel & Marcus, 1982; Phenix, 1964; Donald, 1983). Teachers are also influenced, but less strongly, by contextual factors that depend on the local situation. The type of college is a minor influence compared to the extensive influence of the discipline.

Using the information from this study, my colleagues and I developed and refined a model of course planning called the "contextual filters" model. We developed the first version of the model after the Phase One interviews and refined it based on our Phase Two survey results (Stark et al., 1990b). The title "contextual filters model" was chosen to convey that teachers' disciplinary views and related assumptions are stable antecedents to course planning, largely independent of context. In the process of course planning, however, these assumptions are "filtered through" and modestly affected by, various influences in the college context. Thus, we divide the model into three parts: content (which encompasses faculty beliefs, purposes, and discipline as the key factors in course planning), context (which influences and modifies the content and of which student characteristics are most prominent), and form, which includes the final decisions that teachers make based on content and context.[8] The contextual filters exert only modest influence on teacher beliefs and disciplinary views, ranging from the strong influence of student characteristics to the much weaker influence of facilities, resources and campus support services. Of course, many of these contextual factors are beyond the direct control of the teacher. Thus, they are frequently accommodated and are no longer recognized as influences.

Figure 1 graphically depicts the contextual filters model. The model includes fourteen content/background dimensions of influence and nine context dimensions of course planning identified in our studies and is general enough to apply to any discipline and course level. As we have indicated, however, the importance of these influences varies greatly by discipline. Specific study of teachers in each discipline (and for some fields a definition of course level) is necessary to determine the importance of any given influence on course planning for that field.

By considering teachers' views of their field, the global beliefs about education they endorsed, and the influences they reported on course planning, discriminant analysis allowed us to separate the disciplines on two primary dimensions, (1) the teachers' view of their field (either an organized body of knowledge OR a set of skills to be learned); and (2) the teachers' emphasis on purposes of student development (the extent of emphasis on individual student development and personal enrichment). Teachers in the fields we studied could be classified by discipline quite well (far better than chance) on these self-reported views. Composition and mathematics teachers were quite homogeneous in their views and thus could be uniquely identified (more than two-thirds correctly classified). It was more difficult to specifically identify teachers in sociology, psychology, and literature (20 to 33% correctly classified) because some members within each of these groups held similar views and views similar to those held by history teachers as well (Stark et al., 1990b).

Our interpretation of the few differences identified in course planning at the introductory and advanced level is that faculty members in fields typically offering general education courses in the U.S. do not ignore the general education mission as some critics have claimed. Indeed, instead of planning these introductory courses as if they were designed for majors, teachers in several fields reported slightly greater attention to helping students develop intellectually, relate knowledge to social issues, search for meaning, find personal enrichment in the course material, and become independent learners. These faculty members showed sensitivity to the general education mission of their college and program. Some minor differences in the patterns that guided arrangement of course content implied a bit more conscious attention to how students learn as faculty planned introductory courses. More skeptically, however, one might wonder why teachers did not report radically different course planning strategies for students taking advanced courses in their field. We found only slight evidence to suggest that the mode of inquiry of the discipline was emphasized more strongly at the advanced level, or that course content was selected to help students integrate ideas or apply them.

For teachers, discussions of these results are useful in raising consciousness about the basis for their own planning decisions, improving understanding of different decisions their colleagues in other disciplines may make, and suggesting new ways to communicate course plans more clearly to students. At each college where we conducted interviews we returned to the campus for discussions with participating teachers and observed this raised awareness.

For administrators, the study results strongly indicate the importance of building on disciplinary orientations to support teaching improvement and of fostering understanding of disciplinary differences that often hamper curriculum committees in their work. Curriculum councils and teaching improvement strategies should build on, rather than challenge, diverse beliefs of faculty groups that stem from the disciplines. Administrators should also take note of the fact that, in general, institutional mission seems not to be an important influence on teacher course planning. They may realize that missions need frequent emphasis if they are to be more fully reflected in this important process.

Since most teachers currently do not avail themselves of expert assistance when planning courses and seldom read educational literature, colleges may wish to examine which current services intended to support teaching and learning are useful to teachers and which should be reexamined to find new approaches. For example, although teachers do wish to take account of student characteristics in their planning, they find the amount of information available too scarce to contribute meaningfully to their decisions. Thus, they depend on their own *ad hoc* observations of each new course. The development of databases about students and interpretation of these data in terms of student learning needs could be especially helpful if teachers help in the effort and assist each other in its use. Administrators also need to include part-time teachers who seem more willing to avail themselves of advice and assistance.

Recent and future research

Through these studies, our knowledge about the content and context parts of the model of course planning has expanded considerably. Furthermore, although we found few studies of course planning in the published literature when we conceived and began our study, studies of teacher goals, course planning, instructional design, and especially studies of how disciplinary differences affect these aspects of teacher decision-making, became quite popular in the late 1980s and the literature has continued to expand. A recent review of literature on disciplinary differences by Braxton & Hargens (1996) includes summaries of studies illustrating the effects of these differ-

ences on various aspects of teaching role performance, including attitudes toward students, teaching preferences and goals, classroom teaching practices, teaching norms, and evaluation of teaching performance. The authors discuss a variety of analytical frameworks that have been used to study discipline variations and urge scholars to begin to integrate the best of these frameworks based on emerging consistency in the recent spate of studies.

The studies of course planning began to grow in the mid-1980s. Thomas Angelo and K. Patricia Cross studied course goals among college teachers at the same time we were conducting this study and obtained results quite similar to ours, finding that discipline differences in course goals were most striking (Angelo & Cross, 1993). At about the same time, Franklin & Theall (1992) reported a single university study that probed teachers' goals for their courses among other variables. They also reported their results to be consistent with the first phase of the study we have described here. In particular, they found that a group of interrelated goals concerned with teaching facts, principles and theories was inversely correlated with another group of goals that emphasized teaching skills and behaviors. More recently, Hativa (1997) selected 21 goals from previous studies to explore questions of how college teachers acquire pedagogical knowledge, what motivates them to invest in their teaching, their goals for undergraduate courses, the teaching methods they use, and their perceptions of subject matter they teach. Although her study received low response at a single research university, she detected disciplinary differences in both goals and teaching practices.

In a secondary analysis that used an existing national data set (the 1989 Carnegie Foundation Survey data), Smart & Ethington (1995) explored both discipline and institutional differences in course goals of 4,072 college teachers. Using the three-dimensional Biglan classification of academic disciplines (hard/soft, pure/applied, life/nonlife – see Braxton & Hargens, 1996) and the Carnegie classification of institutional types, they reported both discipline and institutional differences in the importance teachers attached to three broad goal categories: knowledge acquisition, knowledge application, and knowledge integration. These goal categories from Smart and Ethington's work may be too broad to help us understand many nuances of disciplinary differences. But the authors noted, as we did, that there is considerable variation within each of the broad discipline groupings that merits further study. The extent of such potential variation is highlighted in a survey study by Hativa (1993) that included teachers in the departments of mathematics, physics, and chemistry at a single non-U.S. university. The survey solicited teachers' views on a wide-ranging set of issues and topics including goals for their courses, desirable methods of instruction, student evaluations of teaching, patterns of lesson preparation, and promotions criteria. The teachers

in Hativa's study, like the ones in our study, reported goals to develop students' thinking and problem-solving skills to be most important but the characteristics they associated with good teaching were those that focused on the effective transmission of knowledge. In addition, Hativa found substantial differences in teacher views even among these three fields that most scholars would judge as similar in the hierarchical disciplines typical of hard, pure, non-life fields. Based on her discussions with these teachers, Hativa explained some of the differences in terms of the degree to which the fields were differentially hierarchical and the extent to which they introduce current scientific material in lower division courses. Because the questions asked were generated by interviews and discussions within the faculty at this university and, by Hativa's own report some represented local 'controversial' issues, part of the reported variation may also be due to differences in departmental climate rather than to true discipline differences. In addition, the physics department had been engaged in an instructional improvement program (in which the mathematics and chemistry departments were due to participate at a future date). This might have influenced faculty attitudes. These possible explanations reinforce the model we derived from our course planning studies. While the contextual influences operating in a single university may promote some commonality in views, contextual filters also stem from more localized departmental influences, which Hativa referred to as "idiosyncratic cultures."

Our sample of courses included only a few introductory courses in professional and occupational fields and completely omitted performance courses in the fine arts. Yet, in the United States, the numbers of students enrolled in occupational and professional fields is large and growing. Predictably, Smart & Ethington (1995) reported that faculty teaching in applied fields most strongly endorsed goals of knowledge application. In a more theoretically grounded and finer-grained exploration of differences, Donald (1990) studied validation processes and truth criteria in three matched pairs of pure and applied fields and found differences consistent with the Biglan distinction on the pure/applied dimension. Donald also reported that the greater emphasis placed on empirical evidence in the natural and social sciences, in contrast to peer review as a validation technique in the humanities, strongly influences the examples that teachers use when they instruct students. Differences among various professional fields themselves are also considerable. I discussed some of the reasons why this may be so in an article proposing a potential typology of the professional fields taught as undergraduate subjects in the U.S. (Stark, 1998). As I stressed there, considerably more research is needed to understand course planning and associated instructional processes in the various types of professional fields. In fact, it is the great diversity

among these fields that has complicated research and caused scholars to neglect them.

Our work reported here fell short of exploring in depth the actual decisions teachers make about the 'form' of instruction. We gathered only information about how teachers prefer to arrange content and monitor student progress. As is shown in the figure depicting the contextual filters model, teachers seem to make decisions about instructional form in almost any order, as suits their individual style and whether they are routinely maintaining an old course or planning a new one. Although there are many studies of attributes of 'good teaching,' especially those based on student course evaluations, further study is needed to understand the actual instructional choices faculty members include in their plans, the sequence in which the decisions are made, and the types of student feedback that might provoke revisions of course plans. Some studies have contributed to this knowledge recently. Hativa (1993) reported differences in planning patterns and time needed for planning across the three physical science departments she studied and attempted to explain some of these variations. Thielens (1987) explored instructional activities among a broad sample of college teachers and found disciplinary differences in pedagogy. Lecturing was more frequent in the sciences, less frequent in the social sciences, and still less frequent in the humanities. In general, however, Thielens found such a high level of lecturing in all fields, that these variations pale in comparison. Since most of the teachers whose opinions we obtained in our studies of course planning used traditional lecture and discussion methods, new research might specifically seek college teachers who are using modern electronic instructional techniques to see how their planning decisions vary from tradition. Currently, my colleagues and I are studying undergraduate curriculum planning at the department level and, as we interview faculty members in a wide variety of institutions, we note that faculty more often vary from lecture formats than we would have predicted based on our earlier work. We believe this change is due to electronic advances in instructional delivery, to electronic advances in the disciplines themselves, and to widespread discussion in the United States of alternative methods of instruction such as active learning and collaborative learning. A new study replicating the work of Thielens might produce very different results.

Although I have emphasized how teachers in different disciplines vary in course planning and pointed out the strength of these disciplinary influences, I do not want to convey the idea that faculty teaching in any particular field are unanimous in their views. At least in our studies, there were many notable variations within disciplines that are worthy of further study. Hativa (1993) also noted individual variations within fields by presenting her respondents with several optional views on specific issues. Research on individuals

who deviate from disciplinary norms would be useful to identify sources of influence that cause teachers to think independently of their colleagues.

Many important questions emerge from our study and related studies by others that need attention. The relationship of course size to course planning is of interest (see Hativa 1993), as are the possibly unique characteristics of planning for interdisciplinary courses. Since use of part-time faculty in the U.S. is growing rapidly, there is need for more study of their planning and instructional activities and how they can best be assisted and assimilated into the teaching force.

Researchers might well examine the tension between coordinated academic planning within a program and teachers' feelings that they need autonomy to be creative and responsible. In our course planning surveys, we found several institutions at which faculty were not able to answer our questions at all because they were required to teach from course syllabi developed at a central site for several branch campuses. These faculty seemed unhappy with the lack of opportunity to create their own courses. Building on our studies of course planning, we also explored program-level planning (Stark et al., 1997) and we continue to expand our knowledge in this area. We find that teachers do not identify with the composite program planning process as closely as they do with their own courses. Clearly, the creative work of teachers is exhibited most strongly as they plan courses in which they have strong sense of ownership. Since coherence and integration are important, scholars could usefully explore how this sense of ownership and creativity could be fostered at both the course and program level.

Notes

1. A course is a unit of instruction in which a group of students are taught by one or more teachers. In the United States, course typically are scheduled to meet one to four hours a week over a period of time which may vary from a 'quarter' (often ten weeks) to a 'semester' (usually 14 to 15 weeks). Full time undergraduate students typically enroll in from three to five courses during each quarter or semester, depending on the custom of the specific college or university.
2. The work was done by a research team at the University of Michigan's National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPTAL). My primary colleague was Professor Malcolm A. Lowther but eight graduate students also assisted in these studies and co-authored earlier publications.
3. For a book-length treatment of this definition of curriculum, see Stark and Lattuca, 1997.
4. We had purposefully omitted concept learning for the global statements of educational purpose since we assumed this would be an important goal and we desired to obtain discrimination among the other purposes.
5. Some exceptions: Faculty teaching English composition and mathematics in the least selective colleges are more likely than their colleagues elsewhere to view skill acquisition

as an important characteristic of their discipline. Faculty members teaching in small non-selective liberal arts colleges (many of which are religious in sponsorship) more frequently emphasize values clarification and personal enrichment than do their colleagues in other types of colleges.

6. We discovered a number of universities with branch campuses where syllabi are created at a main campus and faculty members do not have autonomy in course planning. These faculty members tended to feel unfulfilled and uncreative in their professional roles.
7. A recent secondary analysis of this data set by Thomas Nelson-Laird (1998) identified gender differences within each discipline that indicated female faculty were more likely to consider student-related issues in course planning.
8. We were guided by the work of Toombs (1977–1978) who divided curriculum design into content, context and form.

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