To increase the relevance of educational psychology, the School of Education at the University of Wisconsin now offers one-credit, 5-week modules in its entire foundational area. The modules offer students a wide range of options and provide instructors greater flexibility and manageability and subject matter presentations. Before the new program was initiated students took three semester-long foundations courses: school and society, learning, and human development. Three years ago a staff and student committee began inventory of subject matter and development of the new program in which students may choose from among one-credit modular units in the same three foundations areas. Although a total of six to nine credits is still required, only one unit or credit must be completed in each of the three areas. Two attitude surveys were administered by the committee (to 122 teachers completing their internship and to 266 students during their module orientation) to obtain an overview on what modular content might be and when modules might be offered relative to student teaching methods courses. Administrative concerns which are still being explored in the formative stage of the program include the danger of over fractionalization, the need for continuity across modules, and the problem of disseminating information to prospective teachers about what to expect from modules, which to choose, and when to enroll. (JS)
FLEXIBILITY AND SEQUENCE: EDUCATIONAL PSYCHOLOGY AND THE TRAINING OF TEACHERS*

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Students have long disdained courses in educational psychology. Successive generations of prospective teachers agree with Welton who proclaimed in 1912 that educational psychology consisted of "putting what everybody knows into language which nobody can understand" (Reimers and Knight, 1922, p. 399). Indeed, little appears to have changed since Watson (1926, p. 577) observed that "the present status of the teaching of educational psychology in the light of the contributions it has made to the selection of subject-matter and the development of methods in other fields, prompts the time-honored suggestion: 'Physician, heal thyself!'" Objections to courses in educational psychology are as vigorous today as they were a half-century ago. The question of substance—what should be taught—has been pre-eminent during the long period of criticism. The diversity of subject matter, which has characterized the course, has been controlled mainly by eliminating it. Unfortunately, models or procedures that would enable instructors to improve the responsiveness of the course to differences in prospective teachers' interests and professional goals have not been adopted.

Individualized instruction is the most effective model that instructors can utilize to increase the relevance of educational psychology. It is difficult to envisage a program more efficacious.

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than one in which a student may pace himself according to his inclinations, study topics especially constructed for his needs and interests, and evaluate his performance not by comparison against other students but against criterion objectives.

Individualized instruction, however, is still in the future; in the meantime the majority of prospective teachers continue to study educational psychology in conventional, lecture-dominated, semester- or quarter-long courses.

Constraints against relevance and program flexibility posed by the length and structure of a conventional course, nonetheless, can be overcome. The School of Education at the University of Wisconsin, for example, now offers one-credit, five-week modules not only in educational psychology, but also in its entire foundational area. The modules offer students a wide range of options and provide instructors greater flexibility and manageability of subject-matter presentations.

The modular program may be viewed as a transitional model, somewhere between the standard semester course and ideal individualized instruction. The program is being initiated during 1969-70 at the University of Wisconsin, and to provide an overview of the implementation, the following discussion includes descriptions of both the traditional and the new modular program, a review of student attitudes toward the modules, and some comments on administrative concerns.
The traditional foundational offerings at the University of Wisconsin

Educational psychology in the teacher certification program at the University of Wisconsin is a component of the professional or foundational area and is distinguished from subject or field preparation, methods courses, and clinical experiences. Both prospective elementary and secondary teachers are required to take, in their junior or senior year, 6-9 credits in the foundational courses. Two courses, Human Development and Learning, are taken in the Department of Educational Psychology and one course, School and Society, in the Department of Educational Policy Studies. In educational psychology, students fulfill the requirement in Learning by a semester-long introductory survey, and that in Human Development by semester-long courses in either child or adolescent psychology.

The main features of the teacher certification program were introduced in 1939, and the faculty, then, as now, hoped the foundational courses would "count on the job." A sequence whereby prospective teachers studied Human Development, School and Society, and Learning was established to increase students' professional understanding and competence. To create a continuous foundational course embodying a single approach and a central theme, the four or five staff members assigned to each course (and sections) met periodically to develop and coordinate common content, outlines, and assignments. At first both faculty and students were enthusiastic about the new program. Class hours turned into town meetings, out-of-class learning experiences multiplied, and
prospects for a potential "community" raised the spirits of all. Always aware of the importance of continuity, the faculty teaching the foundational courses and those teaching methods attempted to relate the concepts and principles taught in each others' courses.

Unfortunately, after ten years, enthusiasm faded. As one strong supporter of the integrated approach ruefully admitted (Willing, 1950, p. 578):

We have kept trying to find better and better texts (we change them almost every semester), to provide more different kinds of texts, to exercise our own fertile brains in the composition of written materials that will sparkle (at least for the authors). We have tried visual aids no end (but as yet without popcorn). We have gone in for much provocative questioning, for free discussions, panels, round tables, debates, symposia, even radio scripts. We have called for shorter term papers, longer term papers, no term papers. We have chosen better looking graduate assistants, worn new neckties ourselves now and then, offered more abundant opportunity for personal conferences (the worst flop of all). We have experimented with afternoon teas, guest speakers, campus lawn sessions, and Christmas greetings. Really I cannot begin to list all the little dodges we have adopted from time to time, but the list would include high grading, low grading, the same grading (not allowed to stop grading), more science, more sentiment, more suspense, more reminiscence, more spirituality, and, finally and at present very
importantly, small and large committees.

"All in all, though, our undergraduate students are still pretty much stumbling toward their doom. We know this, and they know it, and they tell us so before, during, and after" (Willing, 1950, pp. 574-575).

The practice of offering exclusively three semester-long, foundational courses, however prominent the problems, continued until 1969. During this 30 year period, the departmental structure of the School of Education at Wisconsin was completely overhauled, and the faculty grew tenfold. Graduate training and research activities were expedited by the division of functions, but responsibility for the undergraduate foundational courses became fractionated. The courses in Human Development, School and Society, and Learning were shaped by the interests of instructors, who by and large tended to be unaware of, or uninterested in, the intentions of their colleagues. Departmental committees studied aspects of the foundational program from time to time, but their provincialism and limited authority impeded modification, consequently perpetuating the program which failed to prepare teachers for the differentiated roles that they were increasingly expected to fulfill.

By the mid-1960s, the insistence that every prospective teacher take semester-long courses in Human Development, School and Society, and Learning was all that remained of the original plan. And neither faculty nor students knew why; the requirements were in the catalogue and departments dutifully offered the courses. Instructors occupied 45 hours a semester of classroom time in teaching whatever appealed to their fancy. Each of several sections of introductory learning, for example, featured a different emphasis and subject matter. Staff in the Departments of Educational Psychology and Educational Policy Studies seldom knew each
other much less the names of persons in other departments who taught the field, method, and clinical courses.

Students dispaired. Rather than encountering stimulating courses in the foundational area taught by instructors with status and expertise, they found wasteful duplication, conflicting viewpoints, and countless bits of unrelated information, which spread a haze of irrelevance over the entire certification program. Aware of the difficulties, faculty also dispaired, overwhelmed by dispersion of responsibility and lack of coordination.

The New Modular Program

Three years ago, a new Foundational Courses Committee, comprised of staff and students from several departments, began to assess the role of human development, school and society, and learning in the teacher certification program at the University of Wisconsin. For nearly two years, the Committee inventoried subject matter being covered in the foundational area and, in weekly meetings, solicited the suggestions of students and faculty. The myriad interests of prospective teachers revealed an anachronism in the structure of core courses; the consensus indicated that, within broad parameters, no one aspect of a professional course was necessarily more relevant than another. The mood was against resurrecting an outdated program, embodying a central theme. It was clearly for an entirely new program, accommodating wide ranges of teaching styles and goals, which would offer students numerous options.

As a consequence of Committee deliberations, a highly flexible new program is being implemented at the University of Wisconsin. Students in the teacher certification program may now choose from
among one-credit modular units in the areas of Human Development, School and Society, and Learning. Each of the modules is offered for five weeks; a semester is divided into three modular periods. New certification requirements for the foundational courses also enhance flexibility in the modular plan. Although a total of 6-9 credits still is required, only one unit or credit must be completed in each of the three foundational courses. Thus, the remaining three to six credits may be selected without restriction across the courses and modules. Given the modular options available, students may adopt various combinations to satisfy their interests. For example, they may elect a Learning course for three credits and one module in Human Development and School and Society, respectively, and then meet remaining requirements by choosing from among the modules until they have taken two to four additional credits.

The Department of Educational Psychology during the Spring, 1970, semester is offering six modules the first period, five the second, and three the third. The modules meet either Monday-Wednesday, or Tuesday-Thursday, from 11 am to 12:15 pm. Students who have the 11 o'clock hour free Monday through Thursday may select from a variety of modules both on Monday-Wednesday and on Tuesday-Thursday. After completion of the first modular period, students sign up for the second period, and after the second, for the third. Each module is assigned an independent course number and is recorded separately as a one-credit course on students' transcripts.
The Department of Educational Psychology aims, as rapidly as staff expansion permits, to offer at least 90 modules per year. When the program is fully operational, a large variety of options will be available at times convenient to students; then, the flexibility inherent in the program will be responsive to the range of students' interests. Already, the onus of identical requirements for all students, whatever their background and goals, has been removed. Students may study what they wish in the depth they desire within the foundational area modules. To the extent that meaningfulness is equated with interest, the modular approach enhances the likelihood of students finding relevance in the foundational offerings.

The Evaluation Program

The modular program is at present highly formative; hence, as its first priority, the Committee obtained an overview on (a) what the modular content might be, and (b) when modules might be offered relative to student teaching and methods courses. Two attitude surveys have helped provide the necessary information. The first survey was administered to 122 prospective teachers immediately after they completed their internship or practice-teaching assignments. The second was administered to 266 students during an orientation session for the Spring, 1970, modules. Findings pertinent to modular content and sequence are presented below:
A. Survey I: Students returning from practicum--modular content

1. Students were asked to rank, in terms of relevance, the courses they had completed in the School of Education. Courses receiving the ten highest average ranks are listed below:

1) Student Teaching (internship)
2) Curriculum and Instruction
3) School and Society
4.5) Social Issues in Education
4.5) Teaching of Science
6) The Child: His Nature and His Needs
7) Human Development in Infancy and Childhood
8) Human Abilities and Learning
9) Health Information for Teachers
10) Introduction to Elementary Education

2. To obtain guidelines for modular content, students were presented with a list of 88 foundational-area topics, suggested by faculty and students, and asked to select and rank on the basis of relevance: (a) the topics that had been covered most extensively in their precertification courses and (b) the topics most preferred for inclusion in the teacher education program. Those topics named by ten or more persons are listed below by descending average rank for each of the two sets:*

(a) Relevance on the basis of previous experience

1) Social learning model for instruction
2) Youth culture in adolescence
3) Motivation as a factor in learning
4) Peers and adolescents
5) Attitudes and values
6) Classroom interaction and learning
7) Social and personality development
8) Personality practice and learning
9) Tests in measurement
10) Genetic and environmental factors in development

*Only topic titles are listed here. Students were also provided with brief descriptive statements to aid them in making ratings.
Implications: Part 1 suggests that students who have nearly completed the certification program hold conventional, semester-long courses in educational psychology in lower esteem than they do equal length courses in practicum and school and society. Part 2 indicates that topics in educational psychology, however, are regarded as highly relevant among those in the foundational area. For
example, Section (a) shows that among the 19 most frequently ranked topics all but two, Academic Freedom and Loyalty Oaths and Religion in the Schools, are in educational psychology.

Why should seasoned undergraduates in the teacher certification program disdain courses in educational psychology while endorsing the relevance of topics? The myriad professional interests of prospective teachers today are such that only a few persons are satisfied at each point in a course presenting a sequence of topics. Consequently, the majority of the class see the content as irrelevant most of the time. The general survey in either Human Development or Learning indeed is an anachronism, and students readily develop a poor estimation of courses in educational psychology. Fortunately, it appears that marked improvement in the image of the discipline occurs when students consider the content in terms of modular topics.

Students also view socially relevant topics to be significant aspects of the foundational area. Among the 88 topics reviewed for preference in the teacher certification program, Section (b), Part 2, Survey I, reveals concern for minority groups, freedom, inner-city schools, problems and issues of urban education, and black education. Such topics failed to appear in Section (a) ranks, which were based on experience, because they are only now beginning to appear in the curricula. A replication of the survey a few years hence might show increased agreement in the two sets of ranks.
B. Survey I: Students returning from practicum-sequence

Students were asked to consider whether the topics, ranked as relevant on the basis of preference, should be taken before or after methods courses and student teaching. Only two modules, named by ten or more persons, were suggested for afterwards, and these, appropriately, were "Teacher and Community in Public Education" and "School Law and the Teacher." Of the 88 modular topics, only eight were designated by one or more persons as best after student teaching and ten as best after methods. The topics were in educational administration exclusively, e.g., financing public education, administration of personnel programs, the school as a political institution, professional responsibilities versus public prerogative, collective bargaining, and budgetary processes.

Implications: The data suggest that students prefer foundational area courses prior to methods and student teaching. Their foremost interest appears to be in the principles that will enable them to abstract meaning and understanding out of the hustle of classroom activity. Although it seems that all the content of the foundational area, including both principles and management issues, may be regarded as being relatively more meaningful before exposure to practicum, analyses based on the new educational-psychology modules suggests that some classroom management issues may be preferred afterwards (see Survey II, below).
The data do indicate, however, that students view discussion of professional responsibilities as more meaningful after practicum, and perhaps courses and modules on these topics should be delayed until late in the certification program.

C. Survey II: Views of students toward the Educational Psychology Modules.

During the first orientation session for the modules, Spring, 1970, students were asked to select, from the fourteen being offered, the five modules that they believed to be most relevant to teaching and to rank these from one to five. Two hundred and sixty-six students participated; of these, 51 had had some teaching experience and 173 had none; 56 were in elementary education, 168 in secondary, and the remainder were undecided or planned not to teach.

The columns presented in Table 1 are based on the responses of four kinds of prospective teachers, 224 elementary and secondary, with and without teaching experience, respectively. The titles of the modules being offered by the Department of Educational Psychology are listed in descending order on the basis of average rank received. The figures presented to the right of each modular title indicate the percentage of the nominations assigned to that module whatever its relevance. Certain modules received more attention than others, and the range in the percentages reveals that the extent of student interest in each of the modules varies considerably.
<table>
<thead>
<tr>
<th>With classroom experience-elementary (N=30)</th>
<th>% Nominated</th>
<th>Without classroom experience-elementary (N=26)</th>
<th>% Nominated</th>
<th>With classroom experience-secondary (N=21)</th>
<th>% Nominated</th>
<th>Without classroom experience-secondary (N=147)</th>
<th>% Nominated</th>
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<tbody>
<tr>
<td>Psychomotor skill learning</td>
<td>9.09</td>
<td>Models of human development</td>
<td>1.60</td>
<td>Motivation</td>
<td>17.76</td>
<td>Motivation</td>
<td>15.92</td>
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<td>Individual differences</td>
<td>15.55</td>
<td>Understanding adolescence-advanced students</td>
<td>1.60</td>
<td>Psychomotor skill learning</td>
<td>1.87</td>
<td>Understanding adolescence-beginning students</td>
<td>7.03</td>
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<td>Affective learning</td>
<td>10.39</td>
<td>Learning: Theory &amp; Practice</td>
<td>9.60</td>
<td>Affective learning</td>
<td>14.02</td>
<td>Affective learning</td>
<td>12.04</td>
</tr>
<tr>
<td>Learning: Theory &amp; Practice</td>
<td>6.51</td>
<td>Cognitive development</td>
<td>2.40</td>
<td>Media, Programmed Instruction &amp; CAI</td>
<td>4.67</td>
<td>Learning: Theory &amp; Practice</td>
<td>7.77</td>
</tr>
<tr>
<td>Intelligence &amp; Creativity</td>
<td>8.44</td>
<td>Affective learning</td>
<td>11.20</td>
<td>Learning: Theory &amp; Practice</td>
<td>6.54</td>
<td>Understanding adolescence-advanced students</td>
<td>5.95</td>
</tr>
<tr>
<td>Motivation</td>
<td>13.64</td>
<td>Individual differences</td>
<td>15.20</td>
<td>Behavior modification</td>
<td>6.54</td>
<td>Behavior modification</td>
<td>9.08</td>
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<tr>
<td>Behavior modification</td>
<td>6.51</td>
<td>Understanding adolescence-beginning students</td>
<td>11.20</td>
<td>Understanding adolescence-beginning students</td>
<td>4.68</td>
<td>Intelligence &amp; creativity</td>
<td>8.89</td>
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<tr>
<td>Models of human development</td>
<td>1.95</td>
<td>Socialization of the child</td>
<td>4.00</td>
<td>Cognitive development</td>
<td>1.87</td>
<td>Models of human development</td>
<td>2.78</td>
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<tr>
<td>Understanding adolescence beginning students</td>
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<td>Psychomotor skill learning</td>
<td>2.40</td>
<td>Socialization of the child</td>
<td>6.54</td>
<td>Psychomotor skill learning</td>
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<td>Intelligence &amp; creativity</td>
<td>10.28</td>
<td>Individual differences</td>
<td>10.18</td>
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<tr>
<td>Measurement, testing &amp; classroom assessment</td>
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<td>Motivation</td>
<td>14.40</td>
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<td>3.74</td>
<td>Cognitive development</td>
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<td>7.48</td>
<td>Media, programmed instruction &amp; CAI</td>
<td>5.18</td>
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</table>
Implications: Table 1 suggests that the two factors, extent of classroom experience and contemplation of becoming either an elementary or secondary teacher, compound to influenced evaluation of content in educational psychology. It is also apparent from the percentages listed that the frequency with which students chose modules as among the five most relevant was relatively uniform across the modules.

Although the number of prospective elementary students in the survey was small, the data imply, more for prospective elementary teachers than for secondary, that those possessing some teaching experience prefer modules focusing on such classroom management issues as individual differences and skill learning whereas those lacking the experience are primarily interested in modules covering substantive principles in educational psychology. The two groups of elementary teachers also appear more homogeneous in their modular interests than the secondary groups; however, the consistency of the secondary groups in their strong preference for the motivation module is striking. Such modular topics as Affective Learning, Learning: Theory and Practice, and Measurement, Testing and Classroom Assessment obtained similar average ranks across the four groups.
In his recent Charles W. Hunt address at the annual meeting of the American Association of Colleges for Teacher Education, Wilhelms (1970, p. 13) contended that prospective teachers are "psychologically cornered in the courses that precede student teaching," because such courses generally fail to provide opportunities for self-exploration. One answer to this perenially irritating problem may lie in the modular structure described here, for the options, flexibility, and manageability of modules offers beleaguered students promise of reform.

The relaxing of specific course requirements is a noteworthy feature of the modular structure. Each prospective teacher is free to choose modules pertinent to his particular interests and goals from the domain of foundational area offerings. The model allows for complete freedom of choice among the modules; however, selections are likely to be restricted by professional considerations. As more is learned about student preferences and as both students and advisors in English, Zoology, and Business Education, for example, gain experience with the modules, a "typical" sequence for each of the different majors may emerge as singularly relevant. Eventually, various patterns may stabilize and be recommended for different majors. The occasion for constructing a personalized sequence will always be present; neither the Foundational Courses Committee nor the Departments in the School of Education intend to present students with the dilemma of having to choose aimlessly from independent, unrelated mini-courses.
The danger of over-fractionation is endemic to the modular model, and it was recognized at the outset that problems of overlap and continuity should be examined. Topics like intelligence, cognitive development, motivation, and testing were being covered over and over in different semester-long courses. Fortunately, the earliest discussions dealing with modular content revealed the extent of repetition, and the information has enabled staff to make preliminary decisions on how content should be apportioned in the modules. The ease with which the discussions have led to reduction in overlap suggests that the problem will be less critical than anticipated. On the other hand, the question of continuity proved too intricate to be resolved during initial discussions. Presumably, continuity will be improved as instructors build sequences by differentiating introductory from more advanced modules. Moreover, permitting students who have demonstrated proficiency by means of pretests to move directly to advanced modules increases flexibility, and continuity should be augmented further as instructors develop pretests and determine prerequisites for the advanced modules.

Continuity across modules is especially critical for students who wish to study topics in depth or to engage in papers, surveys, or research projects requiring several weeks for completion. Involvement is difficult to achieve in a single five-week module. Fortunately, nothing in the modular model impedes the possibility of offering sequences of two, three, or even four or five modules. The major task is that of determining the topics which warrant extended treatment.
The problem of disseminating information to prospective teachers about what to expect from modules, which to choose, and when to enroll has been the most formidable one faced in initiating the new program. However, after several false starts, the following procedure has evolved: During the first week of the semester, before the start of the first modular period, an orientation session is held for students who have elected one or more modules. At this time, they are provided with a prospectus for each module. (Many will have already obtained the prospectuses from advisors.) Each includes a description of the module, a listing of materials and books to be used, assignments, name of the instructor, meeting times, and room location. Students who preregistered for the modules have already indicated the number of modules in which they intend to enroll; during orientation, the remaining students register. For purposes of university records, students may add and/or drop modules thereafter by using a change-of-program form. They are informed of final grades for each modular period via postcards. At the end of the semester, records for the three periods are forwarded to the Registrar by departmental offices.

Our experience suggests that student understanding of the modular program is enriched by extended discussion of the entire certification program. The orientation period revealed that the majority of the prospective teachers misunderstood the significance of relations among foundational, field, and practicum courses. Many students seem to formulate satisfactory reasons for enrolling in specific modules, but uncertainty
about how to prepare for the teaching profession induces unnecessary confusion. As the modular model is expanded to the entire certification program, however, the inherent flexibility and manageability may lead to greater integration by instructors and, hopefully, increased understanding among students.
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