Teacher education is in urgent need of reform so that teacher behavior is compatible with the philosophy of education and the changing needs of our schools and community. The changed societal and professional needs of teachers must be realized. A course for creativity was proposed for senior graduate students in the Department of Education of a State University College. The procedure was a study gathering information from many relevant sources to either reject or establish a need for such a course. The sources were: 1) organization of a course outline, 2) survey of local faculty thinking, 3) writing to researchers and teachers in this area, 4) administration of need assessment questionnaire to classroom teachers in schools, and 6) results of inservice creativity workshops. Analysis of evidence overwhelmingly established the need for such a course. It is suggested that the above six steps can be used as procedures for assessment of need for a course. (JLF)
Problem: Educators now unanimously agree that there is an urgent need to reform teacher education programs so that the teacher behavior is compatible with the philosophy of Education and the rapidly changing needs of our schools and communities. It is pointed out that many teacher education programs emphasize telling rather than doing; deal with generalities rather than systematic development of specific skills and provide no effective feedback. As a result of evaluative statements about teacher education both by professionals and others, the structure and content of the education of teachers are being examined and in many instances recast (Denemark, 1963). In many institutions, significant changes and decisions in the patterns of teacher education have already been made and many others are at the point of making such decisions.

It is obvious that tradition, custom, and intuition are inadequate bases for curricular decision making. Therefore, decision making process must take into consideration a series of important influences upon the nature of the learning opportunities planned for and with prospective teachers. One of the important influences on the nature of the content and methods involved in the education of teachers is the objectives of the teacher education program which in turn, must take into cognizance the changed societal and professional needs of teachers.

Teachers find themselves in a context characterized by sweeping social and technological change, the explosion of knowledge in almost every field of inquiry, and accelerating population mobility and explosion. They notice democratic institutions being challenged and the character of modern life becoming more complex. As such, it is suggested that the design of teacher education must take a fresh look at the needs of our preservice and inservice teachers before assuming the value of any curricular change. Such an approach would result in choices deliberately in favor of those alternatives which are supported by the evidence gathered. In such a societal context, teachers are charged with the development and growth of our boys and girls into free, rational and responsible men and women. To accomplish such a task, teachers should be equipped to recognize that children possess special resources of interest, talent and that they are not "interchangeable parts" in a complex production line system of education. Professionally, it would require acquisition and application of knowledge, skills and attitude that is conducive to fostering creative behavior in children and in solving new instructional problems for which no recipe exists.

Purpose: Based on the belief that "creativity and readiness for change has vital significance in a time like ours, because of man's pressing need for an adaptive, integrative outlook in facing problems and conditions for which there are no patterns or precedents" (Zirbes, 1959), the investigator presented a proposal for a course in creativity for senior and graduate students in the Department of Education of a State University College. It was hoped
that teachers with general understanding of creative behavior and with creative
teaching skills would "provide opportunities for every child to learn creatively,
to grow creatively, and to live creatively" as recommended by 1970 White House
Conference on Children.

Procedure: The study was undertaken by the investigator with the belief that
there is, at the present, an urgent need for a course in creativity for pre-
service and inservice teachers. However, evidence was gathered from many
relevant sources to establish or to reject the need for such a course. The
design consisted of the following steps:

1. Organization of a Course Outline. Research literature and other
relevant documents were analyzed to identify the central ideas in the
area of creativity. These central points were classified into sub-
categories. A list of references dealing with these sub-areas was
also compiled. Other educational sources like tapes, cassettes, films,
etc. were identified. The investigator also attended the Creative
Problem Solving Institute at SUNY Buffalo to personally interview a few
individuals in this area. A tentative outline of the content and pur-
poses of the course, along with references, was prepared.

2. Survey of Local Faculty Thinking. The content and purposes of
the course were discussed informally with a number of faculty members
in the Department of Education. The purpose of such informal dis-
cussions was to survey the local faculty thinking on the content and
purposes of the proposed course. A formal course outline was presented
to the Graduate Studies Committee of the Department of Education. The function of the Graduate Studies Committee is to approve the course and to recommend its acceptance by the Graduate Council of the College. The Committee suggested to the investigator that the proposal should be brought to the notice of the Chairman of the Educational Psychology area. Accordingly, the proposal was discussed by all the seven members of the Educational Psychology area and was unanimously supported by all of them. After approval from faculty members in the Educational Psychology area, the proposal was returned to Graduate Studies Committee. The Committee approved the course. Finally, the proposal was discussed by all (approx. 60) members of the Department of Education. The faculty members approved the course and stated, "the Department applauds and accepts the course..." Thus, there is clear evidence from this source that there is a need for a course in Creativity in the Teacher Education program.

3. Writing to Researchers and Teachers With Interest in Creativity. Twenty researchers and teachers with strong interest and extensive experience with creative teaching and research were identified. A letter along with a copy of the "Proposal for a Course in Creativity" was sent to each one of them with a request for review, comments, reactions, and further suggestions. In part the letter stated: "I should very much appreciate your review of my proposal in view of your strong interest and extensive experience with creative teaching and research."
A reply from you will be very helpful to us in deciding about the need for such a course." Besides, asking for comments on the need for such a course for prospective teachers, it was hoped that their replies would help in updating the course outline, obtaining recent instructional and research materials and providing different instructional strategies.

Fourteen out of twenty responded to investigator's letters. Their replies unanimously emphasized the need for such a course. A sample of excerpts from their replies are: "I think of no group that needs such instruction more than teachers in training" (Guilford); "I do hope you will initiate these two courses" (Parnes); "I feel confident that it will revive interest and enthusiasm among many exceptionally able education majors who are becoming disillusioned and "turned off" by their education courses" (Torrance); "I regard creativity courses as an absolute essential in the reform of university curriculums to make more discovery methods available to youth" (Gowan); "I feel so strongly that creative education has an important part to play in the survival of Man in modern times" (Smith); "Well-considered and timely" (Yamamoto); "It is my opinion that a course concerning creativity would be beneficial as an elective course for students in various professional programs. Certainly the change process involves creativity in any professional field" (Gaverick).

The replies also contained very helpful and constructive critiques, suggestions for updating references, and instructional strategies. In
most cases, relevant materials were also received. Although the above sample of excerpts clearly support the idea of a course in creativity in teacher education, curricular decision based on this source or on composite evidence of this source and previous source may not be an adequate decision. In fact, it may be charged that it was just like asking "the Pope whether there is a need for the Roman Catholic Church or not!" Besides such a bias, another factor, that leads to inadequacy of curricular decision based on evidence of the previous two sources, is the non-involvement of student teachers and teachers in arriving at this decision. It is felt that the involvement of student teachers and teachers is necessary in order that the decision is responsive to change in community contexts and in the various disciplines. Such opportunities for cooperative planning and decision-making will also lead to acceptance and understanding within the profession. Therefore, it was decided to ask the student teachers and experienced teachers about their views with respect to this course.

4. Administration of Need Assessment Questionnaire to Student Teachers. In order to obtain evidence regarding need for this course, 180 graduate students and senior students in teacher education with at least three years of university education and some student teaching experience were administered the Need Assessment Questionnaire. Such student teachers have a vantage point in that they have not been subjected to the tedium introduced over a period of years in the classroom
and at the same time have acquired professional training. The Assessment Questionnaire was administered by the investigator and is reproduced below:

Need Assessment Questionnaire

Name __________________________ Course __________________________
Date __________________________ College __________________________

Directions: There are a certain number of Education courses that every student is required to complete in order to be eligible for Teacher certification. You have already completed some of these courses and are taking some this semester. Some of you will complete requirements for certification by the end of this semester while others will have to take one or more of these courses in the coming semesters. Suppose that you were to take a few more courses in Education and that your college catalog listed one of the courses as "Psychology and Education of Creative Children" (See the enclosed outline). What would be your reactions to this course? List your reactions by answering the following questions:

1. Do you consider that there is a need for this course?
2. Do you think that this course will be a useful addition?
3. Do you think that teachers with training in this specific area will be more effective in the classroom?
4. Would you like to take the course?
5. Would you take this course?
6. If there is a discrepancy in your answers to 4 and 5 above, what are your reasons for this discrepancy?

7. Any other comments?

Analysis of their responses is given in Table 1.

Table 1

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From table 1, it is noted that 94% of the respondents felt that there was a need for such a course in Teacher Education; 93% considered the course a useful addition; 83% thought that teachers with training in this specific area would be more effective in the classroom; 90% would prefer to take this course and 68% would actually take the course if offered.

From table 1, it is noted that there is a drop of 22% in column 5 over column 4. The responses of these 39 individuals were further examined to identify reasons for their not taking this course despite the fact that they would like to take the course. Three reasons were identified: (1) students are allowed one Education elective course and many of these 39 had already taken one elective course in Education,
As such they considered themselves to be ineligible to take this course which is proposed to be offered as an Education elective; (2) A very few of these students have completed their course requirements and will be no more taking any courses; (3) There were, however, two students who would take the course if it could be applied to the classroom situation.

5. Administration of Need Assessment Questionnaire to Experienced Teachers. A Need Assessment Questionnaire was sent to experienced teachers in the area schools (70 responding) asking them to comment on the need for such a course. Such a step was considered to be a logical way to identify what teachers need in the classroom. Besides, broad involvement of many sources is necessary in order that the curricular decisions may be responsive to rapidly changing social setting. Such an involvement also leads to cooperative planning and consequent acceptance, understanding, and impact. It was felt that teachers, because of their experience, are in a better position than anyone else to know of the significance and practical problems involved in the implementation of concepts suggested by researchers or other persons. The Need Assessment Questionnaire is reproduced below:

Need Assessment Questionnaire
For Classroom Teachers

Name ___________________________ Grade ___________________________

Date ___________________________ School ___________________________

Directions: There are a certain number of Education courses that every
teacher is required to complete in order to be eligible for Teacher certification. Since you have been teaching children for sometime, it appears logical to ask you to identify what teachers should do in the classroom in order to provide opportunities for every child to learn creatively, to grow creatively, and to live creatively. Suppose that you were to take a few more courses in Education and that the college catalog listed one of the courses as "Psychology and Education of Creative Children" (See the enclosed outline). What would be your reactions to this course? List your reactions by answering the following questions:

1. Do you consider that there is a need for this course?
2. Do you think that this course will be a useful addition?
3. Do you think that teachers with training in this specific area will be more effective in the classroom?
4. Would you like to take this course?
5. Would you take this course?
6. If there is a discrepancy in your answers to 4 and 5 above, what are your reasons for this discrepancy?
7. Any other comments?

Analysis of their responses is given in Table 2.

Table 2

Summary of Responses to Questions 1 to 5 (N=70)

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From table 2, it is noted that there is a drop of 2.4% in column 5 over column 4. The responses of these 17 individuals were further examined to identify reasons for their not taking this course despite the fact that they would like to take the course.

The following are some of the reasons: (1) will be completing Master's degree and want to rest for a few years; (2) have already taken a similar course at Oswego; (3) have other commitments for the next year; (4) have already signed up for courses for the next year; (5) can take the course only during Summer; (6) can take the course only as an in-service workshop. There were about 11 teachers who stated that they would not like to take the course. Their comments in support of their negative response were examined. It was pointed out that: (1) the course is too much "educationese" and very little practical application; (2) creativity is a nebulous term and cannot be implemented; and (3) the benefit from the course will be limited.

6. Inservice Creativity Workshops. Over the past few years, many institutions with a genuine commitment to teacher preparation and in close cooperation with public school systems have made available to teachers - inservice creativity workshops designed to achieve general understanding of creative behavior and to develop creative teaching skills. The evaluation of the effectiveness of these workshops on teachers and children was also considered to be an additional source of evidence.
Every year, a Creativity Workshop is arranged by the Department of Psychology, University of Utah at Salt Lake City. The participants find the workshop relevant, useful and contributing to their professional and affective growth. Creative Problem Solving Institute is also arranged annually by the Creative Education Foundation at the State University College at Buffalo. The Institute is open to participants from all walks of life. The evaluation of the workshop has shown that the participants from the Education profession deemed the workshop activities of considerable usefulness and relevance in fostering creative behavior among children.

In Project Impact (Rowson, 1970), a federally funded teacher in-service education program aimed at influencing teacher behavior toward nurturing more student creative thinking, it was found that the project has been a change agent. Some of the changes in the classroom attributable to the programs of the project were: (1) increase in student productive thinking; (2) decrease in teacher routine activity; (3) decrease in teacher talk; (4) increase in student talk and (5) increase in the level of teachers' self-concept.

In another program for developing creative thinking in teachers and children at the 4th and 5th grade levels (Schaefer, 1970), the effectiveness of the creativity program was evaluated by a three-prong approach: (1) classroom observations, (2) creativity test battery, and (3) subjective reports by experimental teachers. The principal
finding was that teachers who were provided with special training could raise the creativity level of their children higher than teachers who were not offered this assistance. Observer ratings of classroom behavior revealed that the trained teachers surpassed the controlled teachers in exhibiting a more democratic and original teaching style, and the children in their classes showed more alert and original behavior in the classroom.

In "Operation Snowball," National Schools Project for developing creativity in the classroom (Williams, 1966), teachers from the participating schools found their participation in the project advantageous for their children.

Summary: Many relevant sources were used to gather evidence to establish or to reject the need for a course in creativity in teacher education. The sources were: (1) research literature and other relevant documents, (2) survey of local faculty thinking, (3) writing to researchers and teachers in this area, (4) administration of need assessment questionnaire to student teachers, (5) administration of need assessment questionnaire to classroom teachers in schools, and (6) results of inservice creativity workshops. Analysis of evidence gathered overwhelmingly established the need for such a course. It is suggested that the above six steps can be used as procedures for assessment of need for a course in teacher education.
REFERENCES


