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ABSTRACT

This study was conducted to answer three major questions relative to undergraduate preservice secondary education programs: (1) What courses in pedagogy are required of all secondary education majors and how many credits are awarded in each area? (2) What are the current practices relative to student teaching credit and evaluation? and (3) How effective a job is being done in preparing teachers for the public schools with the current curriculum content of methods courses in secondary education? A two-part survey instrument was developed and administered to the entire population of colleges and universities whose secondary education program was accredited by the National Council for Accreditation of Teacher Education (NCATE). The number of institutions was 541; the response rate was 57.3 percent. Results are discussed in terms of course requirements (subject specific and generic methods courses, reading in content field, special education, tests and measurements, and discipline); student teaching; topic coverage, including lesson planning, curriculum, teaching techniques, at-risk students, student assessment, and ancillary skills and knowledge necessary for teaching. Recommendations for teacher education and alternative certification programs are made. (LL)

A Study of Current Practice on the Pre-Service Preparation of Secondary School Teachers

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INTRODUCTION

Calls for re-shaping teacher education in general and courses in pedagogy seem to re-cycle with a regularity as dependable as sunrise and sunset . Indeed one recent author (Sebesta, 1991) has described a cycle in methods content over his career as a teacher educator. Although the inevitability of calls for change, and specific proposals for change may, at times, seem counter-productive, we have seen substantive change over the years, albeit not revolutionary change.

This investigator can recall being an undergraduate student (1959-63) and taking three credits in "Methods of Teaching in the Secondary School" and another three credits in "Methods of Teaching Science in the Secondary School". I remember also several professors in the sciences who thought that too much was required in methods, so when a new three-hour course in "Methods of Teaching Reading in the Content Field" was added a cry went up for more academic work in content and less in education. Since I have graduated, many changes have taken place in professional education and in cognate areas. Perhaps the work of Coleman (1966) and Jencks (1972) were two of the prime movers in announcing the need for change in the public schools; at the very least , they did tend to stir consciousness. Reports such as A Nation At Risk (1983) and Sizer's A Celebration of Teaching: High Schools in the 1980's (1983) expanded the need for changes. Interestingly enough many of the reform suggestions were similar to some recommended by Conant (1959) decades earlier.

If change is needed in the secondary curriculum, it stands to reason that some change in teacher preparation programs may also be needed. Whether such a change parallels the post graduate approach (The Holmes Group, 1986; A Nation Prepared for the 21st Century, 1986) or a complete re-structuring (Goodlad, 1990) remains to be seen. Before any change is instituted, however, it is app opriate to examine what is currently being done in terms of teacher preparation. Since government reports and even some reports by "Blue Ribbon Committees" sometimes tend toward political rather than educational purposes and since there are times when the profession is not consulted as fully as desirable, this investigator elected to seek some answers from the "grass roots" level of teacher education.

RESEARCH CONCERNS

The fact that American students are not doing as well in school as many people would like is undeniable. To argue that all of this will change if teachers have more subject matter and receive higher salaries is, to say the least, debatable. Serious questions as to the current state of affairs must be asked prior to adopting or modifying any model of reform. Simply to say that we are not doing the job is not sufficient. Hunt (1987) reported that most state directors of teacher certification still favored undergraduate programs in teacher education and a survey of teachers, administrators, and school board members by Tracy (1988) suggested that current teacher education programs do a satisfactory job. Even so, one must ask *What is the current teacher education program?* and that question represents the starting point for this research.

This research initiative is designed to answer three major questions relative to undergraduate pre-service secondary education programs:

1) What courses in pedagogy are required of <u>all</u> secondary education majors and how many credits are awarded in each area?

2) What are the current practices relative to student teaching credit and evaluation?

3) How effective a job are we doing, in the eyes of the teacher educator, in preparing teachers for the public schools with the current curricula content of methods courses in secondary education?

RESEARCH PROCEDURES

The Instrument

A two part survey instrument was developed. Part One concerned itself with the credits required in:

1) Generic secondary methods courses

2) Subject specific methods courses

3) Discipline (behavior management)

4) Reading in the content field

5) Tests and measurements

6) Special education

7) Student teaching.

In addition, part one asked questions about how student teaching credit was awarded and asked the respondent to indicate a preference with respect to generic and/or subject specific methods courses.

The second part of the instrument identified thirty seven variables, each of which related to specific teaching skills or competencies. The number of different topics was limited to assure that all items would fit on one side of a sheet of paper, thus improving the probability of response. The topics were selected by reviewing items presented in selected texts (Clark and Starr, 1991; Orlich, et al., 1990), professional books (Hunter, 1982; McCarthy, 1980) and professional taped programs (ASCD, 1987). For purpose of analysis the topics were divided into seven general areas :

1) Topics related to types and forms of lesson planning.

2) Topics related to curriculum.

3) Topics related to teaching techniques and methods.

4) Topics related to educational technology.

5) Topics related to classified and "at risk" students.

6) Topics related to student assessment.

7) Topics related to ancillary skills and knowledge necessary for teaching.

To each of the variables respondents were asked to indicate the degree to which the subject was treated in one or more methods courses. The possible responses were :

A = Treated as completely as necessary

B = Treated, but not as completely as it should be

C = Not currently treated but should be for a well rounded pre-service professional education.

D = Not treated and not needed for a well rounded pre-service professional education

The Population

To maximize the validity of the results it was decided to use the entire population of colleges and universities that met the design criteria. To be selected, an institution had to have an undergraduate secondary education program that was accredited by the National Council for Accreditation of Teacher Education (NCATE). To improve the probability of reaching all institutions a complete set of mailing labels was secured from NCATE. Cover letters were sent to the Deans of Education and/or Education Department Heads along with the survey instrument and a stamped return envelope. NCATE had supplied 557 mailing labels. Of the labels supplied, six were institutional duplicates and ten others resulted in returns indicating that the institution was either no longer accredited or no longer had an undergraduate program. Thus the total population was reduced to 541. The survey forms were mailed over a three week period in April, 1991 ,and by June 15, 1991 ,310 returns were received for a response rate of 57.3%. Data collection was discontinued on June 15, 1991.

The distribution of NCATE accredited institutions (for undergraduate programs in secondary education) is provided by regional accrediting areas in Table One on page 5. Table One also displays the percentage of completed survey instruments by region. It must be noted, however, that 13.5% of the responding institutions either declined to provide regional information, or provided incorrect information (such as using NCATE as the regional agency).

Analysis of Data

The data, once submitted, was entered into the computer for analysis. Frequency distributions, measures of central tendencies and probabilities were determined as appropriate. In addition ,the case run was personally reviewed for the purpose of establishing a separate frequency distribution designed to

determine the number of times a specific institution indicated less than complete preparation in topics on Part Two of the instrument.

The data were then presented in thirteen separate tables. The tables are reproduced in this report where appropriate.

Table One

Distribution of Population and Responses by Regional Accrediting Associations

REGIONAL ACCREDITING ASSOCIATION	% POPULATION	% RESPONDENT
Middle States Association	8.9	6.5
New England Association	3.8	1.6
North Central Association	47.1	46.4
Northwest Association	5.4	4.9
Southern Association	31.6	25.7
Western Association	2.6	0.8
Unidentified	0	13.5

RESULTS

Course Requirements

It can be seen from Table Two that 50% or more of all institutions require all secondary majors to take specific courses in generic methods, subject specific methods, reading in content, discipline, special education, and tests and measurements. The table notes that 76.13% of the institutions require both

Table Two
Percentage of Institutions Requiring Formal Courses In Selected Pedagogical Areas (n=310)

TYPE OF METHODS COURSE	PERCENT REQUIRING
Subject specific	87.74
Generic	86.13
Reading in content field	80.32
Special education	70.97
Tests and measurements	57.10
Discipline (behavior management)	41.94

Note: 76.13% required both generic and subject specific courses

a generic and subject specific methods course.This is backed up with data indicating that fully 83.23% of the respondents prefer that students take both types of basic methods courses, even if his or her institution does not require both.

Requiring a course is one thing, the credit awarded is another. It is, after all, possible to provide a one-credit course which would present a student with some information but not as much as a two credit course, and so forth. Table Three on the following page provides data on the central tendencies of all respondent institutions with respect to course credit. Caution should be taken when viewing the data with respect to "discipline" due to the possible misinterpretation of the item since thirty-four of the institutions indicated more than six credits were required in discipline. This investigator suspects that the term "discipline" may have been inaccurately interpreted to mean an academic area of specialization rather than behavior management. The data presented in Table Three does show, however, that the typical undergraduate today would have a full three-credit course in generic methods, subject specific methods,

and reading in the content field. Further, a two-credit course in special education and some work in tests and measurements may also be required. The data also suggests that when a course is offered it will most likely be a three-credit course.

Table Three

Measures of Central Tendencies of Pedagogical Credits for All Institutions

TYPE OF METHODS COURSE	MEAN	MEDIAN	MODE
Generic	3.40	3.00	3.00
Subject specific	2.90	3.00	3.00
Reading in content	2.32	3.00	3.00
Special education	1.93	2.00	3.00
Tests and measurements	1.46	1.50	0.00
Discipline	1.41	0.50	0.00

Student Teaching

The survey examined time frames and evaluation practices for student teaching. Although there were two institutions or 0.65% that utilized half days for the student teaching field experience, the vast majority (99.35%) used full day assignments. More than eleven weeks of student teaching is used by 68.39% of the respondent institutions with 31.29% offering student teaching for only 8-10 weeks. Data from one source could not be recorded since multiple boxes were checked indicating some type of variability.

Grading of student teaching is frequently a topic of faculty discussion. This is punctuated by the fact that the study revealed 50.56% of the schools used regular grading procedures for student teaching while 47.42% used a pass/fail or credit/no credit option. In 0.97% of the cases the student had the option of electing either a graded or non-graded experience. The final 0.97% represents two schools for which data could not be entered due to multiple check offs on the survey instrument.

The individual(s) responsible for grading and awarding credit in student teaching seems to be most commonly the college or university professor. In

50.06% of the cases it is the college faculty member alone who determines the grade while in another 30.32% it is an agreement between the college and school supervisors[1]. In 22.90% of the cases both the professor and school supervisor provided grades. Finally, in only 2.26% of the situations did the cooperating teacher have full responsibility for grading and awarding credit.

Table Four

Frequency Distribution and Central Tendencies of Credits for Student Teaching (n=310)

CREDITS	FREQUENCY	CREDITS	FREQUENCY
0	0	11	7
1	5	12	102
2	2	12.5	1
3	4	13	0
4	1	14	7
5	1	15	3
6	33	16	4
7	3	17	0
8	30	18	0
9	39	19	0
10	53	20	1

MEAN = 10.00 MEDIAN = 10.00 MODE = 12.00

As can be seen from Table Four, above, the most popular credit award for student teaching was 12 credits. Although there are five institutions that awarded only one credit and one institution that awarded twenty credits the middle third (approximately) of the range (6-12) includes 86.13% of all cases.

[1]Interestingly several of the forms having this response checked also had a note indicating that it was, ultimately, the professors responsibility.

Topic Coverage

The seven major areas are each viewed separately in Tables Five through Eleven. In each case the probability of less than complete preparation is given. Responses of B or C to the items resulted in data being recorded as less than complete coverage. The "D" response , that the subject was not covered and not needed , was recorded separately in Table Twelve.

The first area of consideration was instructional planning. As can be seen from Table Five, below, there is a probability of 0.1 or greater that a student will have less than complete preparation in each of the areas. In both learning

Table Five

Probability of Less Than Complete Preparation in Types and Forms of Planning

TOPIC	p INCOMPLETE	p MISSING	p TOTAL	n
Bloom's Taxonomy	.210	.011	.221	272
Learning Styles	.364	.014	.378	298
Lesson Planning	.148	.064	.152	297
Models of Teaching	.337	.026	.363	300
Objective Writing	.171	.004	.175	269
Unit Planning	.207	.014	.221	299

styles and models of teaching the chances that a student is not fully prepared is one in three. Further, as can be seen from Table Twelve on page 14 , 1% of the institutions do not think it is necessary to teach lesson planning and 1.7% do not feel that learning styles should be taught. If we assume that all of the listed topics are important and add the data from Table Twelve into the equation the results would be an even greater probability of less than complete preparation. It is, however, interesting to note that with the single exception of lesson planning ,the probability of not having any training in a subject is less than 0.05. The probability of no training in lesson planning is 0.064 for all institutions that believe lesson planning is important and 0.074 for all institutions responding to the item.

In terms of curriculum topics the survey was concerned with two topics: curriculum development and curriculum guides. Table Six, below, reveals that

Table Six

Probability of Less Than Complete Preparation in Matters of Curriculum

TOPIC	p INCOMPLETE	p MISSING	p TOTAL	n
Curriculum Development	.347	.052	.399	303
Curriculum Guides	.349	.065	.414	295

the probability of incomplete preparation is approximately 0.4 for both topics. Examining the "missing" column of the table we can see that in each case the probability exceeds 0.05. Neither of the two topics appeared on the Table Twelve listing of unimportant topics.

The third area includes teaching methods and techniques which are presented on Table Seven on page 11. In each case the probability of less than complete preparation exceeds 0.300. In eight areas, including concept attainment, cooperative learning, discovery, experimentation, homework, inquiry, role playing , and simulations, the probability exceeds 0.500. An analysis of the data also demonstrates that the probability of a topic being completely missing from the preparation of secondary teachers exceeds 0.050 for concept attainment, cooperative learning, experimentation, homework, inquiry, role playing and simulations.

Again, examining the data relative to teaching methods, findings recorded in Table Twelve show that concept attainment, homework, mastery lecture, and traditional lecture are not considered necessary by more than 1% of the institutions. Combining the information from Tables Seven and Twelve results in an even more dramatic probability of less than complete preparation with homework leading the list with an aggregate probability of 0.829.

Four Topics were grouped in the area of educational technology. The topics included traditional audio-visual techniques, computer assisted instruction, interactive video, and programmed instruction. As can be seen from examining Table Eight on page 12, the probability of less than complete preparation goes from a low of 0.411 for audio-visual to a high of 0.837 for interactive video. Further, in each case the probability of complete lack of instruction exceeds 0.050.

Table Seven
Probability of Less Than Complete Preparation in Selected Teaching Techniques

TOPIC	p INCOMPLETE	p MISSING	p TOTAL	n
Concept Attainment	.507	.059	.566	272
Cooperative Learning	.440	.077	.517	273
Demonstration	.415	.004	.419	272
Discovery	.533	.048	.581	270
Discussion	.292	.015	.307	274
Experimentation	.559	.065	.626	270
Homework	.531	.249	.780	268
Inquiry	.542	.044	.586	273
Mastery Lecture	.414	.063	.477	268
Questioning Technique	.475	.015	.490	263
Role Playing	.540	.048	.588	272
Simulations	.577	.081	.658	272
Traditional Lecture	.290	.029	.319	272

All of the topics in the educational technology areas, except for computer assisted instruction, appear in Table Twelve as not being necessary. Combining data from Tables Eight and Twelve results in a total probability of incomplete treatment from 0.433 for traditional audio-visual techniques to 0.918 for interactive video.

In the area of dealing with classified and "at risk" students, two topics were considered: mainstreaming and specifically dealing with the problems associated with the "at risk" population. As can be seen from Table Nine on page 12, in each case the probability of less than complete preparation was in excess of 0.680. Further, in each case the probability of total nontreatment was in excess of 0.05.

Table Eight

Probability of Less Than Complete Preparation In Areas Of Educational Technology

TOPIC	p INCOMPLETE	p MISSING	p TOTAL	n
Audio-Visual, Traditional	.313	.098	.411	275
Computer Assisted Instruction	.563	.122	.685	270
Interactive Video	.296	.541	.837	270
Programmed Instruction	.449	.223	.672	265

Table Nine

Probability of Less Than Complete Preparation in Dealing with Classified and "At-Risk" Students

TOPIC	p INCOMPLETE	p MISSING	p TOTAL	n
Mainstreaming	.591	.091	.682	274
Students "At Risk"	.599	.127	.726	267

The sixth area considered was pupil assessment, containing formal and informal formative assessment, summative assessment, test construction and standardized tests. Table Ten on page 13 shows that the probability of less than complete training exceeds 0.500 for each topic. In addition, the probability that the topic is completely absent in the pre-service educational preparation of a student is greater than 0.05 in all topics except test construction.

The only topic considered unnecessary by 1% or more of the reporting institutions was standardized tests. Combining information from Tables Ten and Twelve we have an aggregate probability of 0.657 that a new teacher would not be fully prepared in that topic.

Table Ten

Probability of Less Than Complete Preparation in Areas of Student Assessment

TOPIC	p INCOMPLETE	p MISSING	p TOTAL	n
Formal Formative Assessment	.504	.064	.586	274
Informal Formative Assessment	.522	.043	.565	276
Standardized Tests	.542	.100	.642	271
Summative Assessment	.491	.060	.551	267
Test Construction	.476	.037	.513	271

The seventh and final area contained the ancillary skills needed by teachers. This area included conferencing skills, dealing with cultural diversity, discipline, motivation techniques, and roles of school district employees. In each case the probability of less than complete preparation, as can be seen from Table Eleven on page 14, was at or above the 0.500 level of probability. In the cases of conferencing skills and roles of school district employees, the probability of nontreatment was in excess of 0.050.

Table Twelve indicates that both conferencing skills and the roles of district employees was considered unnecessary by more than 1% of the institutions. Combining information from the two tables results in a probability of less than complete training of 0.874 for conferencing skills and 0.597 for the roles of school district employees.

Not all institutions responded to part two of the instrument and not all that responded to the second part responded to every item. Even so, a tally was made to determine the number of B and C responses recorded by each institution. Only those institutions that responded to more than half of the items in part two were tabulated. The data, presented in Table Thirteen, demonstrate that roughly half of the institutions indicated less than complete preparation in fourteen or more of the thirty seven-topics listed in the instrument. Further, fully 117 institutions indicated less than complete preparation on more than half of the listed topics.

Table Eleven
Probability of Less Than Complete Preparation in Ancillary Skills Necessary For Teachers

TOPIC	p INCOMPLETE	p MISSING	p TOTAL	n
Conferenceing Skills	.511	.301	.852	272
Cultural Diversity	.572	.040	.576	277
Discipline	.466	.034	.500	296
Motivation	.487	.026	.513	275
Roles of District Personnel	.491	.087	.578	277

Table Twelve
Topics Considered Unnecessary by 1% or More of the Respondents

TOPIC	%	TOPIC	%
Audio-Visual	2.2	Lesson Planning	1.0
Concept Attainment	1.5	Mastery Lecture	4.1
Conferencing Skills	2.2	Programmed Instruction	15.1
Homework	4.9	Role of Employees	1.9
Interactive Video	8.1	Standardized Tests	1.5
Learning Styles	1.7	Traditional Lecture	7.0

Table Thirteen
Frequency Distribution of Institutions Indicating Less Than Complete Preparation on the Thirty Seven Item List

# ITEMS		f INSTITUTIONS	# ITEMS	f INSTITUTIONS
0		5	20	11
1		8	21	6
2		10	22	7
3		11	23	12
4		5	24	10
5		6	25	6
6		5	26	15
7		11	27	7
8		6	28	6
9		4	29	7
10		6	30	5
11		9	31	9
12		11	32	7
13		11	33	3
14	(MODE)	22	34	1
15		9	35	0
16		10	36	1
17		6	37	0
18		3		
19		4		

DELIMITATIONS

The study is limited to secondary education and can not be applied to elementary education.

A review of the instrument, after data collection, indicates that the discipline item in part one was not worded as well as it could be. It was possible that the term "discipline" was interpreted to mean an academic area of study, rather than behavior management. This incorrect interpretation, however, was not made by a large number of institutions as the central tendencies did not demonstrate very high values, even though some respondents awarded high credit value on the survey instrument.

Part one of the instrument did not specifically list courses in audio - visual production, computer assisted instruction, or educational technology. This was due partially to the space limitations of the instrument and partially to the fact that those items are listed in part two of the instrument as specific topics of instruction.

For part two of the instrument thirty-seven items were considered. As with any study of this type, the selection of included topics has a definable limit. Even though topics were selected based on being part of established professional literature there may be some who considered them unnecessary, hence the possibility of the "D" response. It must be noted, however, that this investigator did consider all included topics to be essential in the preparation of secondary teachers.

In a similar fashion the fact that topics were selected implies that some were "deselected" and as such could not be treated. The lack of inclusion of other topics was, in part, a function of space limitations on the survey form. Also, a free response item was not included which would have allowed for respondent selected topics but, which also would have used space, potentially reduced the response rate, and made analysis considerably more difficult.

It was assumed that the respondent is knowledgeable on the subject and that his or her subjective judgement in selecting a response was creditable. These are, however, reasonable assumptions, given the nature of the addressee.

DISCUSSION

Course Requirements and Student Teaching

Based on this study it would be easy to assume that the typical graduate would have three credits each in a generic methods course, a subject specific methods course, reading in the content field, and special education for a total of twelve credits. In addition the pre-service student may have had some work in tests and measurements and even discipline or behavior management. Comparing this with this investigator's undergraduate preparation it is easy to see that more methods are now required. In addition it would seem that the student teaching experience is of sufficient length to provide pre-service practical experience.

Critics of American education may look at the data and conclude that additional work in methods has not resulted in significant gains in test scores so a reduction or even elimination of methods courses in favor of more content would be in order, Protagonists will suggest that although the typical graduate may receive more credits than thirty years ago even more is needed. The balance of this report will attempt to reconcile the two views and form a conclusion based on the data presented in the study.

Course Content

It was hoped that the study would demonstrate the degree to which our new secondary teachers are competent in specific topics of importance to the practicing educator. The fact that in twenty-two of the thirty-seven areas, or 59.5% of the topics, there was a 0.500 probability or higher of less than complete preparation leads one to express some concern over the preparation level of our new teachers. This concern is further amplified by the fact that half of the institutions indicated less than complete preparation in fourteen or more of the topics and fully 117 institutions reported less than complete preparation on more than half of the listed topics. Caution must be exercised, however, in dealing with the data. It must be remembered that "less than complete preparation" does not necessarily mean "incompetence". It is entirely possible for individuals with some training to function well because they have filled in the gaps in preparation or their preparation, while not complete, was sufficient for the neophyte.

Planning is such an important aspect of good teaching that it boarders on shocking that so many students have less than complete preparation in so many areas. If we consider that any student in a profession should be fully prepared in all of the areas required for competent performance, the fact that from 15.2% to 37.8% of our graduates are not prepared in one or more areas of planning suggests that a very significant number of new teachers are starting their careers with at least one strike against them. Further, how can any school

administrator expect a teacher to plan well when he or she is not well versed in learning styles, Bloom's taxonomy, and even lesson planning itself.

While new teachers are not expected to be curriculum experts, this investigator is of the opinion that each teacher should know how curriculum is developed and what to find--and how to use a curriculum guide. After all, each teacher will be using a curriculum guide and, in many districts, curriculum development has significant teacher input. The fact that roughly 40% of our graduates have incomplete preparation in curriculum development and curriculum guides suggests that this could result in a further disadvantage to the new teacher.

If a district is fortunate enough to have new teachers who are prepared in planning and in curriculum guides, it may be that these same teachers are not prepared in specific teaching techniques. In ten of the thirteen items specifically identified, perhaps arguably, as teaching techniques, over 50% of new graduates would be less than completely prepared. While some of the topics are certainly more important than others, each represents a skill in the arsenal against ignorance, and the more complete the arsenal, the better the chance of victory.

Within teaching techniques it is, to this investigator, deplorable that 78% of the graduates are not fully prepared in the theory and use of homework. What is worse is that an additional 4.9% will graduate from institutions that do not consider homework important. Perhaps with this in mind it is understandable why teachers complain about students not doing assignments. Just as we may teach as we were taught, so we may conjecture that , without formal training, we will assign as we have been assigned. This investigator, for one, would prefer training so that students have meaningful, challenging and, as needed, differentiated assignments which add to the learning process.

There is no question that educational technology is playing an ever increasing role in education. Examining that area, however, results in the disconcerting fact that 60% or more of our graduates are not fully prepared in most areas of educational technology. Even traditional audio-visual use showed over 40% of the graduates less than competent. With virtually every high school teacher expected to use some form of A-V aid as part of the instructional process how can we, as teacher educators, accept such a high rate of less than complete preparation? Technology must be incorporated for the improvement and enhancement of instruction but where will the neophyte teacher learn? From the supervisor? The principal? Other teachers? Or will the new teacher not use, or use improperly the wonders of modern technology. It is doubtful that we can accept this situation in contemporary society.

Ever since PL94-142 the profession has paid increasing attention to the needs of classified students. In addition recent and necessary attention is being paid to the "at risk" student. Yet, more than two thirds of our institutions are graduating teachers with less than complete preparation in one or both of these areas. Even when students have to take a course in Special Education, it may

be likely that the course deals with the nature of specialities but not , due to time and amount of content,necessarily how to teach to those specialities.

An important task of each teacher is to properly, fairly , and validly assess the performance of students. In all aspects of assessment we are not completely preparing our students for this task. This investigator can not help but be curious as to the number of parent conferences our new teachers will have as a result of their grading and assessment practices.

In the event the new teacher has parent conferences (a very high probability) ,he or she may not be prepared to deal with it. In fact basic skills in conferencing, discipline, motivation, cultural diversity , and even knowing the role of various district employees is incompletely treated by 50% or more of the institutions. If we, as teacher educators, do not completely teach such survival skills, can we expect teachers to survive?

A Synthesis With Explanation

A synthesis of the results and discussion could lead one to conclude that we, as teacher educators , are doing a poor job. *Not necessarily so* . This investigator completed the form and found eight items checked "less than complete". There are multiple explanations for the results. It is, of course, possible that the individuals filling out the forms are always trying to do more--the best they can for the students and may have, at times, evaluated their coverage too strictly. There is, however, another explanation which warrants some degree of exposition.

Over the last two decades we have seen more research, and synthesis of research in teaching and learning than we have seen in the rest of past history. There has literally been an explosion of knowledge. Add to this the following:

1) Justifiably increased attention to the needs of classified students, especially within the regular classroom.

2) Increased cultural diversity with the influx of large number of immigrants, both legal and illegal, into the country and schools.

3) Increased levels of technology in the world, and in education, placing increased pressure on and giving increased attention to the public schools.

4) Increased political pressure and the use of "politically correct educational doctrine" as opposed to research based educational theory and practice.

5) Increased numbers of students from one parent homes, battered homes, or neglected homes.

6) Increased demands on the schools to serve as nurse-maids, restaurants, and social equalizers well as educators.

7) Increased pressure to reduce the professional education requirements in favor of more "subject matter" on the erroneous premise that to know more about something means you can communicate it better to others.

8) The increasing use of "alternate routes" which , in some cases, all but bypass professional preparation of any significant kind.

Taking all of this into consideration ,it is possible to hypothesize that, even with the data in this report, we are not doing all that bad. Unfortunately, we do still need to do much better.

Recommendations

Ideally we need to reverse the trend in alternative routing where professional education is sacrificed. There is, of course, nothing incorrect in a student earning a B.A. or B.S. in a field and then to follow with a full thirty-two credit Master's in Education (plus student teaching and thesis). Unfortunately, f alternate routes can be little more than six week intensive training sessions or a reasonably quick twelve credits or so. We must, somehow, convey the concept that to be a competent teacher we must provide increased levels of professional preparation as well as the full major in subject.

Some among the professional community would argue that the five year program is the only way to accomplish the task, and they could be correct. This writer, on the other hand, still believes that there is a need for a four year professional educational program in secondary education. Some reasons for this are:

1) In some parts of the country there are high numbers of uncertified teachers teaching because a shortage exists in those areas.

2) In most areas of the country teaching is not financially competitive with other professions, and in some areas not even competitive with semi-skilled labor.

3) Even at the top of a salary scale many teachers would not earn, with a graduate degree, what most professionals earn at the start of their career with the same level of degree.

As long as compensation for teaching is less than for law, engineering, accounting, and similar professions, it is not as likely that an individual would spend an extra year in college, and the extra funds, to earn significantly less than his or her classmates.

Assuming that we have a desire to include, within four years, a full program designed to prepare secondary teachers, a full thirty- two credit major in a subject and a full thirty-nine credit major in professional education, should be provided. The thirty-nine credits in professional education would include three credits each in generic methods, subject specific methods, reading in the content field, strategies for mainstreamed classified and "at risk" students (special education), and tests and measurements for a total of fifteen credits in pedagogy. To that we add a three-credit course in historical, social, and philosophical foundations, three credits in educational psychology(including some learning theory), and three credits in field experience prior to student teaching, three credits in educational technology The student teaching experience would be valued at twelve credits creating a total concentration of thirty-nine credits in the Professional Education major . Impossible? Not so.

Creative scheduling could allow student teaching to occupy one half of a college semester. Students would be teaching when their school's in session so that the relatively long college breaks would not be breaks for the teachers. In this was a respectable length student teaching assignment could be completed in one half of a semester, thus allowing one half a semester for special accelerated courses, perhaps up to nine credits. The result would be full majors in subject and professional education.

An alternate or co-lateral approach would be to negotiate with the universities to adjust the core requirements where necessary. Adjustment of core and other requirements would only serve to strengthen the undergraduate preparation of secondary teachers.

Future Research

This investigator is currently planning a project to ask secondary administrators and new teachers to respond to a survey instrument designed to ascertain their perceptions on the same topics as has been reported on in this document. Further, along with two colleagues, a similar project is in the early planning stages for the elementary schools. If funding is secured for these projects they will, once completed, provide the most extensive needs assessment available in pedagogical education and as such may be used for guidance in staff development, as well as pre-service preparation.

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