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AUTHOR Campbell, Lloyd P.; Williamson, John A.
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ABSTRACT

This study investigated selected problem areas in student teaching experienced by teachers of academic and nonacademic subjects. The Student Teacher Problems Inventory (STPI) was administered to 270 secondary education student teachers in the last week of their student teaching experience. The mean scores for each of the problem areas were compared and an analysis of variance revealed significant differences in the scores. Results showed that language arts and social science teachers consistently had more difficulty in certain problem areas than industrial arts and physical education teachers. Mathematics and foreign language teachers sometimes experienced more difficulty than the nonacademic teachers. Specific problem areas were discussed. (The report includes the STPI and two tables of statistical data.) (Author/BRB)

ABSTRACT

Campbell, Lloyd P. and Williamson, John A.
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The purpose of the study was to determine if teachers of academic subjects experienced more or less difficulty in selected problem areas than did teachers of non-academic subjects. The Student Teacher Problems Inventory was administered to 270 senior secondary education student teachers during their last week of student teaching in the fall of 1971. Comparisons of the mean scores for each of the problem areas were made among the subject matter fields. These comparisons were submitted to analysis of variance calculations, which revealed a number of significant differences.

Findings indicated that teachers of language arts and social sciences, and in some cases mathematics and foreign languages, consistently experienced more difficulty in selected problem areas than did teachers in industrial arts and physical education. Among the most important problem areas where significant differences existed were: (1) adapting to needs, interests and abilities, (2) lacking command over subject matter, (3) planning and organizing learning activities, materials and procedures, and (4) presenting the lessons, questioning, and guiding pupil discussion.

PROBLEMS IN STUDENT TEACHING
Academic Versus Non-Academic Subjects

There has existed for some time a rather general agreement among educators that there are significant differences in the problems experienced by those teaching in an academic, classroom oriented environment, versus those teaching in a non-academic setting, such as the shop in industrial arts, the band hall in music, or the gymnasium in physical education. If indeed differences do exist among teaching disciplines in terms of types and degree of problems, knowledge of these differences should provide meaningful direction for more appropriate and more effective emphasis in programs in teacher education. The purpose of this study was to identify these differences.

PROCEDURES

During the fall semester of 1971 the Student Teacher Problems Inventory (Table 1) was mailed to 299 senior secondary education student teachers during their last week of student teaching. Of this number, 270 instruments were returned in usable form. The STPI, which contained fourteen statements representing professional problems of beginning teachers, was a modification of Luchsinger's instrument (1). In this study the student teachers indicated the degree of experienced difficulty with each problem on a four point scale. The higher mean rating for a particular problem area indicated more difficulty experienced by the respondent. Comparisons of the mean scores for each of the problem areas were made among the subject matter fields (Table 2). These comparisons were submitted to analysis of variance calculations for determination of significant differences among teaching disciplines within problem areas.

FINDINGS

Table 3 reveals that adapting to the needs, interests, and abilities of students was considerably more difficult for student teachers (hereinafter referred to as teachers) in mathematics, social science, and foreign language than for teachers of industrial arts. It may be that the nature of industrial arts is such that providing for individual differences can more readily be accomplished in a course emphasizing skill development than it can in courses that highlight acquisition of knowledge. Consistent with this finding is that foreign language teachers also experienced more difficulty in this problem area than did teachers of physical education and music.

An interesting finding was that mathematics teachers had less difficulty in adjusting to deficiencies in school equipment, physical conditions, and materials than did teachers of social science, physical education, and music. This might be interpreted to mean that typically the mathematics teacher is essentially contented with an adequate supply of chalk, chalkboard space, and textbooks. On the other hand, the social science teacher is highly desirous of multiple paperback texts, projectors, 16mm films, filmstrips, globes, maps, charts, etc. Similarly, the physical education instructor sees a need for voluminous equipment, both of the indoor and outdoor variety. The music teacher needs rehearsal rooms, platforms, sufficient copies of music, musical instruments of all kinds, sound equipment, etc. In short, the mathematics teacher appears to have fewer problems in this area because he has fewer needs.

Teachers in language arts, mathematics, and social science had more difficulty in budgeting time and controlling tempo than did teachers in industrial arts. This would appear to be a result of the nature of the typical academic setting where the teacher is attempting to manage a larger number of students in an activity that is essentially teacher controlled. The industrial arts setting is often one in which the student is acting almost independently of the instructor. After sufficient orientation, the student might typically report to class, commence work on an important project, be instructed to put away the materials toward the end of the period, and then be dismissed. Thus, the teacher of industrial arts is more apt to act in the role of a guide or consultant than is the typical academic teacher; hence, he has less difficulty in budgeting time and controlling tempo.

Lacking command over subject matter was more of a problem for teachers in language arts, social science, and science than for those in physical education. This could be construed to mean that the domains of knowledge are far greater and more difficult to comprehend and master in academic courses than in physical education, which is essentially an activity type course.

Social science and music teachers had more difficulty in planning and organizing learning activities, materials, and procedures than did those who taught industrial arts and physical education. This problem area included making adequate preparation, determining aims, and objectives, selecting and organizing subject matter and materials, and planning teaching procedures and learning activities. That social studies instruction is more difficult in this problem area than industrial arts and physical education is consistent with previous findings. However, music teachers' difficulty may be explained by excessive demands upon their time. These demands would generally include providing performances at such functions as athletic events, PTA meetings, school assemblies, and community-

civic organizations in addition to preparation for university interscholastic league competition.

Teachers of language arts and social science experienced more difficulty in presenting the lesson, questioning, and guiding student discussion than did the physical education instructors. This finding serves to further highlight the difficulties experienced by academic versus non-academic teachers.

CONCLUSION

Clearly the most interesting finding of this study is the greater difficulty experienced by teachers in the academic subjects versus the virtual lack of difficulty experienced by teachers in the non-academic subjects. Teachers of industrial arts and physical education consistently experienced less difficulty than did those teachers in language arts and social science, and in some cases mathematics and foreign languages. Although considerable additional research is necessary before definitive steps may be taken, the findings of this study may suggest the need for a serious re-evaluation of our teacher preparation program. If problems indigenous to particular subject matter areas can be identified, then possibly the teacher preparation programs should be tailored to more adequately prepare student teachers to cope with these kinds of problems. The end result should be a more effective teacher in every subject area.

Lloyd P. Campbell
Assistant Professor
Secondary Education
North Texas State University

John A. Williamson
Assistant Professor
Secondary Education
North Texas State University

REFERENCE

Luchsinger, Robert D. "A Study of Student Teacher Perceptions of the Secondary Teacher Education Program of Colorado State College," Unpublished doctoral dissertation, Colorado State College, 1969.

TABLE 1

STUDENT TEACHER PROBLEMS INVENTORY*

1. Adapting to the needs, interests, and abilities of pupils.
2. Adjusting to deficiencies in school equipment, physical conditions, and materials.
3. Budgeting time and controlling tempo.
4. Evaluating pupil achievement.
5. Handling problems of pupil control and discipline.
6. Handling routine duties in the classroom.
7. Keeping and making out official records and reports.
8. Lacking command over subject matter.
9. Lacking an effective teaching voice.
10. Lacking poise, self-confidence, assurance, and emotional stability.
11. Motivating pupil interest and response.
12. Planning and organizing learning activities, materials and procedures.
13. Presenting the lesson, questioning, and guiding pupil discussion.
14. Understanding and using special school services.

*Due to space limitation, only the stem of each problem is included.

TABLE 2

MEAN SCORE FOR EACH PROBLEM BY SUBJECT MATTER AREA*

	Lang. Arts	Math	Soc. Sci.	Sci.	I.A.	P.E.	Mus.	For. Lang.
1. Adapting to needs, interests and abilities		2.25	2.20		1.70	1.90	1.79	2.55
2. Adjusting to deficiencies in equipment, conditions and materials		1.10	1.56			1.62	1.85	
3. Budgeting time and controlling tempo	2.14	2.00	1.94		1.45	1.68		
8. Lacking command over subject matter	1.68		1.72	1.92		1.31	1.28	
10. Lacking poise, self-confidence, assurance and emotional stability	1.78					1.27		
12. Planning and organizing learning activities, materials and procedures			1.90		1.50	1.48	2.07	
13. Presenting the lessons, questioning, and guiding pupil discussion	1.80		1.89			1.37		

*Includes only mean scores which, when compared, produced statistically significant differences.

TABLE 3

RELATIVE DIFFICULTY IN DEALING WITH PROBLEM AREAS

(Fields Listed at Top of Table Experienced More Difficulty)

	Lang. Arts (41)	Math (20)	Soc. Sci. (55)	Sci. (14)	I.A. (20)	P.E. (29)	Mus. (14)	For. Lang. (11)
1. Adapting to needs, interests and abilities		I.A.	I.A.					I.A. P.E. Mus.
2. Adjusting to deficiencies in equipment, conditions and materials			Math			Math	Math*	
3. Budgeting time and controlling tempo	I.A.* P.E.	I.A.	I.A.					
8. Lacking command over subject matter	P.E.		P.E.*	P.E.* Mus.				
10. Lacking poise, self-conficence, assurance and emotional stability	P.E.*							
12. Planning and organizing learning activities, materials and procedures			P.E. I.A.				P.E. I.A.	
13. Presenting the lesson, questioning, and guiding pupil discussion	P.E.*		P.E.*					

*.01 level of significance. All others are significant at the .05 level.