

Relationships Between Success in an Education Program and Success in the Teaching Profession

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In the final analysis, a teacher education program must be evaluated in terms of the success of its graduates. This study examined the teaching effectiveness of a random sample of the University of Lethbridge bachelor of education graduates and related various components of their success to the performance of those same individuals as students within the teacher education program. There appeared to be a definite relationship between success in the program and success in teaching, but individual components of the program were not good predictors of teaching success.

La qualité d'un programme de formation pédagogique doit en dernière analyse se mesurer au succès de ses diplômés. L'étude dont nous rendons compte ici a consisté à évaluer les qualités pédagogiques d'un échantillon aléatoire de bacheliers en sciences de l'éducation de l'Université de Lethbridge et à faire le rapprochement entre divers facteurs de leur succès et le rendement que ces mêmes personnes ont fourni pendant leurs études universitaires. Il semble qu'il y ait un lien très net entre le succès à l'université et le succès dans l'enseignement bien que les différentes composantes du programme ne soient pas de bons indicateurs du succès ultérieur des enseignants.

When teachers are hired, their prospective employers assume that, because they have successfully completed a teacher education program, they will be successful teachers. It follows that employers should be able to expect those who obtained the greatest success in the education program to become the most successful teachers.

However, there has been little evidence to support this premise. Hall (1964) stated that "very little research evidence is available to verify or deny that teacher education institutions are doing an effective job in preparing future teachers" (p. 72). Using pupil achievement on standardized tests as a measure of effective teaching, he found such achievement to be of questionable value as the sole criterion, but he did conclude that average pupil gains were higher for pupils taught by certified teachers. But Turner (1975) identified two studies (Ducharme, 1970; Greaves, 1972) which led him to conclude that "ratings of student teaching performance consistently correlate with principals' ratings of success in teaching" (p. 103). Similarly, Labriola (1965) concluded from a follow-up study of 200 teachers that it is possible to predict success in the initial teaching experience based on teachers' performance in student teaching. However, Pratt (1977), after a review of several such studies stated that "generally low agreement has been found between in-training assessments

based on practice teaching and subsequent ratings by supervisors" (p. 12).

Criteria other than performance in student teaching have also been used to try to predict teaching effectiveness. Vittetoe (1977) identified 144 superior and 100 inferior first-year teachers, based on principal ratings. He found that one-fourth of the superior teachers had had low GPAs in the education program and several of the failures had had high GPAs. He did find some relationship between teaching success, subject area, and similarity to the student teaching experience. Ryans (1960), in a comprehensive research study of characteristics of teachers, concluded that academically outstanding students scored significantly higher than other groups on many attributes considered to be characteristic of good teachers.

Ort (1964) conducted a study of various techniques used to predict the success of teachers. Supervisors were asked to rate the teachers on the same evaluation form as the one used during the teachers' student teaching experience. Various personality and attitude tests were also used as predictors. He concluded among other things that: (a) "academic achievement in college does not seem to have any predictive value as to how successful a student will be as a student teacher or as a teacher in his first year of experience," (b) "the results from personality and teacher attitude inventories . . . did not have any predictive value," and (c) "the best predictions of the future success of a student teacher, even though limited, can be made by the supervising teacher and the campus supervisors" (p. 70).

Anderson and Hunka (1963) stated that "conventional" research into the evaluation and prediction of teaching proficiency and criterion variables has reached a dead-end because "negligible relationships exist within and among the various criteria of teaching proficiency, the ultimate criterion of pupil growth along desired dimensions, the immediate criterion of practice teaching marks, and the intermediate criterion of principals' or superintendents' ratings" (p. 74).

The use of principals' or superintendents' assessments as a measure of success in teaching has come under considerable attack. Hain and Smith (1968) found that principals used criteria such as bus duty, playground and cafeteria duty, and observation while the teacher moved from one class to another, more often than formal observation or classroom visits. Turner (1975) suggests that work success can be reduced to three classes of criterion variables: student attainment, professional judgment, and student judgment. Sandefur and Adams (1976) utilize four categories of evaluative data: career line data; direct classroom observation; pupil, peer, and supervisory evaluations; and standardized measures. Ryans (1960), however, stated categorically that "only time sampling involving replicated systematic observation by trained observers produces sufficiently reliable results to recommend its use in fundamental research" (p. 374).

He does allow that other data would be acceptable for broader discrimination.

In spite of the weaknesses in the utilization of principal and self evaluations, for this study it was decided to use these assessments as the initial measures of teaching success. Principals are in fact evaluating teachers, and they do have considerable impact into the teacher education program. This was the initial attempt at evaluating teaching graduates and the opinions and co-operation of the principals were considered to be crucial for this study and for the follow-up study which is expected to utilize a more sophisticated evaluation system.

PURPOSE AND OBJECTIVES

The major purpose of the study was to develop a collection of variables which appear to be the most valid and reliable for evaluating a teacher education program. Specific objectives were to:

1. Identify factors perceived to influence teaching success or teachers' perceptions of success,
2. Determine components of teaching success as identified by teachers and their principals,
3. Determine the relationship between evaluations of performance in an education program and evaluations of performance as a practising teacher, and
4. Determine the validity of professors' assessments of future teaching success in terms of principals' evaluations of teaching performance.

METHOD

This study was one of many conducted within the framework of the Qualitative Analysis of the University of Lethbridge Teacher Education Program (QUALTEP), which has as its ultimate goal the development of a model for the evaluation of teacher education programs. Many QUALTEP studies have examined relationships within and among the pre-education, selection, and training categories of variables. However, this was the first QUALTEP study to examine the teaching success of graduates of the program and to relate their teaching effectiveness to their performance within the education program.

The sample for this study consisted of a random selection of 50 University of Lethbridge graduates who were in the second population of the QUALTEP study, who had completed their teacher preparation at the University of Lethbridge and had been awarded a BEd degree, and who were teaching in a public school system in Alberta. Detailed questionnaires were mailed to each graduate and, with their permission, to the principal. The questions related to placement and other factors thought

to influence teacher success, and to opinions about what constitutes teaching effectiveness. One section of the questionnaire was identical to the instrument that had been used for the evaluation of the individual as a student teacher in the teacher education program. The principal was asked to evaluate the practising teacher using this same form; that is, using the same 39 competencies on the 1 to 5 rating scale. Each teacher independently completed a self-evaluation using the same criteria.

Descriptive analysis, the chi-square test, and multiple regression were the major procedures utilized to obtain the greatest possible meaning from the considerable amount of data.

The study contained several limitations which are dealt with more fully in the larger report. One major limitation was the sample size which necessitates that statistical results be interpreted with caution, and which precluded a full descriptive analysis in order to preserve the anonymity of the respondents. The University of Lethbridge Faculty of Education entrance requirements of a minimum grade point average of 2.00 on a 4 point scale in two years of pre-education liberal arts courses, and the further requirement of a minimum of a "C" grade in the student teaching practicum further reduced the variability of the sample.

No attempt was made to define teaching effectiveness or teaching success. The assumption was made that principals can and do differentiate between good and poor teachers and that teachers themselves have perceptions of their own success. However, there were some discrepancies in the frame of reference used by principals and teachers in rating relative to other teachers, and some staffs as a whole were better than others.

RESULTS

Forty-six pairs of teacher-principal questionnaires and one principal questionnaire were returned for a response rate of 93%. In addition, a personal structured interview was conducted with 89% of the respondents. All principals were male and 96% of them were over 30 years of age. Their administrative experience ranged from fewer than 5 years to more than 15 years. Fifty-nine percent of the teachers were female. All were in their first or second year of teaching and all were under 30 years of age.

On the whole, the teachers were rated quite highly by the principals. Only four teachers received a rating less than 5. When rating themselves on the same scale, teachers as a whole were slightly more generous.

FACTORS INFLUENCING TEACHING SUCCESS

Principals and teachers were asked to indicate the relative importance of each of 11 factors in determining teaching success and teaching failure (see Table 1). There appeared to be little difference between teachers' and principals' opinions or between factors thought to contribute the most to teaching success and those thought to be most important in

determining teaching failure. In both cases, teachers and principals ranked classroom control, communication skills, and preparation as the three most important factors.

TABLE 1
*Factors Thought to Contribute the Most to Teaching Success
and Teaching Failure*

Factors	<i>By Principals</i>		<i>By Teachers</i>	
	<i>Weighted M Rank</i>		<i>Weighted M Rank</i>	
Teaching Success				
Classroom Control	4.80	1	4.87	1
Communication Skills	4.74	2	4.61	2
Preparation	4.65	3	4.54	3
Personality	4.44	4	4.35	5.5
Knowledge of Subject	4.30	5	4.41	4
Teaching Methods	4.22	6	4.35	5.5
Placement Suitability	3.72	7	4.17	7
School Administration	3.56	8	4.09	8
Staff Interpersonal Relations	3.54	9	3.98	9
Teaching Experience	3.33	10	3.74	10.5
Student Characteristics	3.23	11	3.74	10.5
Teaching Failure				
Classroom Control	4.87	1	4.76	1
Preparation	4.65	2	4.27	3
Communication Skills	4.45	3	4.41	2
Personality	4.24	4	3.94	4.5
Teaching Methods	4.04	5	3.84	6
Knowledge of Subject	3.82	6	3.94	4.5
School Administration	3.54	7	3.46	9
Placement Suitability	3.47	8	3.83	7
Staff Interpersonal Relations	3.17	9	3.02	11
Teaching Experience	2.96	10.5	3.16	10
Student Characteristics	2.96	10.5	3.54	8

However, when teachers and principals were asked in a personal interview to identify the “single most important factor in determining teaching success” without the interviewer specifying any factors from which to choose, the list that emerged was slightly different. Teachers most often mentioned factors relating to relationships with children (empathy, rapport, love, etc.), while principals tended to mention classroom management skills and personal attitudes. The same question was asked with

regard to teaching failure. Again, no attempt was made to define teaching failure. In many cases, the response was "the opposite of the previous answer." But many respondents interpreted the question as measuring very different qualities. Classroom control appeared to teachers to be far more related to teaching failure than to teaching success. It is interesting to note that only three persons in either group identified "having an effect on student learning" as the most important factor in teaching success or failure.

When asked in the interviews, "If you could replace 75% of your present teaching staff with whomever you choose, would you retain this teacher?", principals gave the following responses: yes—63.8%; maybe—14.6%; no—17.1%.

Many of the principals indicated that their responses might have been different another year. It must also be remembered that the principals were comparing these first- and second-year teachers to other teachers who may have had many years of experience. Those who had answered "no" gave one or more of the following reasons: lacking in dedication and ability, poor personality, lack of experience, too many fantastic teachers on staff.

It was hypothesized that teaching success would be related to job satisfaction, and that factors such as teaching load, salary, community and social activities, and subject and grade level placement would affect the teacher's feeling of satisfaction. This hypothesis was not supported by the results of this study. None of the relationships were statistically significant, nor were any particular trends evident in the analysis. There did appear to be some relationship between teachers' feelings of satisfaction with their particular teaching assignment, and the principal's overall assessment of success ($p = .05$) and his rating on the 1 to 10 scale ($p = .06$). Of those rated above average, 94% were satisfied; of those related below average, only one-fourth were happy with their assignments. Only three teachers indicated that they were very unhappy with their teaching assignments. All three were below average on the principals' overall assessment of success.

Analysis of Success as Determined by Professors, Principals, and Teachers

Overall assessments. For each of the three evaluators, there were two overall measures of success: for professors, the "global assessment" category on the student teaching evaluation form and the grade in student teaching; for principals and teacher self-evaluations, the "overall assessment of teaching success" category on the evaluation form and the rating on the 1 to 10 scale. As one would expect, the relationship between each of the two measures for each of the three evaluators was significant ($p < .01$).

There was no apparent relationship between the principals' ratings of teaching success and the teachers' self ratings; only for 18 (47%) of the 38 teachers who had both principal and self ratings were the ratings similar. Ten (26%) of the teachers rated themselves higher than did their principals; the same number rated themselves lower. The grade received in the student teaching practicum did not appear to be related to either principal ratings or to teacher self-ratings.

Similarly, no statistically significant relationship existed among overall assessments by professors, teachers, or principals. The principal's response to the question of whether he would keep the teacher given the opportunity to replace 75% of his staff was not related to grade in student teaching or to professors' assessments. Nor was it related to teacher self assessments. It was, of course, significantly related to the principals' assessments and ratings.

Ratings on individual categories of the evaluation form. None of the correlations between principal and professor ratings on the 39 variables on the evaluation form were statistically significant. However, with the large number of variables (39), the small number of subjects (46), and the small range of scores (2 to 5), it was not surprising that the correlations were not significant. It seemed logical to assume that different evaluators might be concentrating on different aspects of teaching in order to arrive at their overall estimates of success. Therefore the 39 variables on each of the three evaluation forms were subjected to multiple regression techniques and to factor analysis procedures in an attempt to account for differences among evaluators.

Multiple regression. For each of the three evaluation forms, "overall assessment of success" was used as the criterion; each regression was also re-run using the 1 to 10 ratings of success as the criterion for teachers and principals, and grade in student teaching as the criterion for professors. In all cases, for a variable to enter the regression, the *F* value for the next step had to be significant at the .05 level (Guilford & Fruchter, 1975, p. 368).

For the professor evaluations with global assessment as the dependent variable, four variables met the criteria, and together accounted for 79% of the variance (see Table 2). With grade in student teaching as the dependent variable, eight variables entered the regression and produced a multiple correlation of .974 with a standard error of .185. These results must be interpreted with caution since the sample size was small and it was therefore possible to account for a large portion of the variance. It is interesting to note, though, that in both cases professors appeared to concentrate on variables related to the student teachers' preparation and interaction with pupils.

For the principal evaluations with "overall assessment" as the dependent variable, one variable (suitability of lesson materials and media) by itself accounted for 89% of the variance, and only one other entered the

TABLE 2
Results of Multiple Regression Analysis on Professor Evaluations^a

Dependent Variable = Professors' Global Assessments of Success		
<i>Variable Entering</i>	<i>Step</i>	<i>Multiple R</i>
Motivation of pupils	(1)	.731
Consistency of preparation	(2)	.824
Respect & admiration from pupils	(3)	.862
Presenting information	(4)	.895
Standard error = 0.323		
Dependent Variable = Grade In Student Teaching		
Consistency of preparation	(1)	.784
Respect & admiration from pupils	(2)	.886
Presenting information	(3)	.925
Enthusiasm & vitality	(4)	.948
Handling routines	(5)	.956
Voice quality	(6)	.964
Initiative	(7)	.971
Adaptability	(8)	.975
Standard error = .185		

^a*n* = 37

regression (see Table 3). These variables were ones which conceivably could have been rated by the principal without his ever having observed the teacher teaching. With the 1 to 10 rating as the criterion variable, four variables entered the regression and produced a multiple of *R* of .969 with a standard error of .524. Here classroom management and "self-image" characteristics were paramount.

The teachers themselves appeared to place more emphasis on appearance and classroom control and management techniques (see Table 4), but it should be noted that the portion of variance accounted for was smaller and the standard error was greater than for professors' or principals' evaluations.

Factor analysis. Based on the theory underlying the faculty's development of the evaluation form, it was hypothesized that certain variables would be grouped in the evaluations, and that these groupings might be different for professors and for principals. This hypothesis was not supported by the factor analysis procedure. The procedure was repeated several times in various ways in an attempt to obtain the most meaningful interpretation, but because of the large number of variables and the relatively small number of cases, the analysis may be misleading and is

TABLE 3
Results of Multiple Regression Analysis on Principal Evaluations^a

Dependent Variable = Principals' Assessments of Teaching Success		
<i>Variable Entering</i>	<i>Step</i>	<i>Multiple R</i>
Suitability of lesson materials and media	(1)	.944
Justifiable self-confidence	(2)	.960
Standard error = .248		
Dependent Variable = Principals' Ratings		
Classroom management	(1)	.897
Self-concept	(2)	.941
Self-evaluation	(3)	.957
Leading discussion	(4)	.970
Standard error = .524		

^a*n* = 24

TABLE 4
Results of Multiple Regression Analysis on Teacher Self Evaluations^a

Dependent Variable = Self Assessments of Teaching Success		
<i>Variable Entering</i>	<i>Step</i>	<i>Multiple R</i>
Personal appearance	(1)	.412
Classroom control	(2)	.631
Planning ability	(3)	.695
Creativity	(4)	.800
Maturity and judgment	(5)	.848
Handling routines	(6)	.879
Standard error = .787		
Dependent Variable = Self Ratings		
Classroom management	(1)	.590
Initiative	(2)	.740
Standard error = .933		

^a*n* = 28

not reported in detail here. It was interesting to note, however, that no matter how many factors were extracted, for principals the classroom control variables were always together, as were the professional characteristics. For professors, planning-preparation variables were always in the same factor.

PREDICTIONS OF SUCCESS AND PRINCIPALS' EVALUATION

The statistical analyses of the professors', principals', and teachers' evaluations produced little in terms of statistically significant findings. However, as suggested by Gage (1978), in a study of this type, a descriptive analysis is often more productive. Accordingly, the evaluations were examined in some detail. There was an almost perfect relationship between the grade in student teaching and the professor's prediction of teaching success.

One would hypothesize then that those who had received high grades and predictions in student teaching would also receive high ratings from the principals. However, although a "C" is usually considered to be an average grade, students in the University of Lethbridge Faculty of Education must have at least a "C" standing to graduate from the program; this requirement has had the effect of raising the mean for graduates to a "B." Therefore it was predicted that students who had received an "A" in student teaching would also have received an assessment of 4 or 5 and a rating of at least 7 or better from the principal. This prediction was supported for 7 out of the 11 students who had received an "A" in student teaching. (One student had not received a rating from the principal.) One would also expect "B" students to have received a rating somewhere between 5 and 8. Again, all but three of the eight "B" students who had principal ratings supported the prediction. Similarly, "C" students could be expected to have received ratings of 6 or less. This was the area in which the greatest discrepancy was found; 6 of the 11 "C" students received ratings higher than a 6 and three received a 6.

Certain trends were apparent for those teachers who did not "fit" the expectations. Of the three students rated highly ("A") by the professors, but low (<7) by the principals, one was actually assessed very highly in the interview and the principal indicated that he would definitely keep the teacher on staff. The low rating occurred because of the large numbers of "well above average" teachers at the school. Another of the "A" student teachers had left teaching and indicated disillusionment with the system. The other had had, according to the supervisors, a detrimental experience in another school which added to the problems of disorganization and classroom control.

Of the three "B" teachers who did not "fit," one was assessed higher by the principal and two lower. Both of those assessed lower were in large city schools where the supervisor was rating relative to a large number of teachers and presumably where the choice was greater. The teacher rated higher was in a small school in a rural area. This does not imply that teachers in larger schools were assessed lower than the others; several of the highly rated teachers were in large urban schools.

All seven of the "C" teachers rated highly by their principals were in rural areas. Most of their professors had indicated that with additional

experience, they could become very effective teachers. Many had also indicated a need to develop greater confidence. Presumably these teachers had developed this confidence with this additional experience in the rural setting.

DISCUSSION

In spite of the exploratory nature of the study and its limitations, there were several findings worthy of note:

1. Relationships among assessments, grades, and ratings by principals, professors, and teachers were not statistically significant. Nor were correlations between professors' and principals' ratings on any of the 39 variables on the evaluation form significant at the .05 level. However, these findings were not unexpected given the large number of variables, the small sample size, and the complexity of "teaching success."
2. There did appear to be a definite link between success in the program and success in teaching. Professor predictions of teaching success were fairly closely associated with an expected assessment of teaching performance. There was a certain overlap in the expected performance of "A" and "B," and "B" and "C" students, and there were several students for whom the predictions were completely invalid. These discrepancies appeared to result from a combination of situational and personal factors, many of which are beyond the control of the teacher education institution or the school system.
3. Based on the findings of the regression analysis, principals appeared to be assessing their teachers in a more global manner than professors. They also appeared to be using criteria that could have been observed outside the classroom; for example, use of materials and media, self-confidence, etc. Many principals stated that time constraints had allowed them to actually observe the teacher in the classroom only once. Professors appeared to be using more complex criteria for evaluation, and focused on factors that have to do more with teacher-pupil interaction.
4. Until the study has been replicated on a larger sample, few conclusions can be drawn from the results of the factor analyses. However, it does appear that principals consistently tended to group together those qualities that could have been observed outside the classroom, and that professors appeared to consistently group together qualities which might have been assessed in on-campus activities (such as methods classes) rather than in the classroom setting.
5. Principals and teachers agreed on their selection of factors contributing the most to teaching success and teaching failure. However, when asked in the interview to state the single most important factor in teaching success and failure, teachers mentioned relationships with children

most often, whereas principals most frequently mentioned classroom management skills.

6. Factors such as grade and subject placement, participation in community activities, salary, extra-curricular assignments, and school size did not appear to be related to principals' assessments of teaching success or to teachers' assessments of their own success. However, the teachers' feelings of satisfaction with their teaching assignments did appear to be related to success.

7. Teachers in rural schools tended to be rated slightly higher than their urban counterparts. The reason for this appeared to be that most graduates preferred to teach in the urban areas; consequently, urban schools are able to select their teachers from the top graduates. This statement is supported by the fact that 87% of the teachers who had received a "C" in student teaching were employed in communities with fewer than 5,000 people. This is compared with 67% of the "B" teachers and 40% of the "A" teachers who were teaching in rural areas.

A study of this type probably creates more questions than it answers. The groundwork has now been laid for a major study on a larger sample of graduates, using evaluation by trained observers as a major criterion of success.

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