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BEYOND THE CLASSROOM: FACTORS SHAPING TEACHER EFFECTIVENESS IN UPPER PRIMARY SCHOOLS

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ABSTRACT

Effective teaching has continuously been under focus in spite of technological advancements and modern resources available in the school. Effective teaching is critical for student success in the 21st century. This study investigates the factors influencing teacher effectiveness in upper primary schools in Kanchipuram district, Tamil Nadu, India. The research examined the impact of school location, management type, and teacher age on instructional delivery. A sample of 700 upper primary teachers participated in the study. Data were analyzed using one-way ANOVA and independent t-tests. The findings revealed that while school location had a negligible impact, school management type, teacher age, and experience significantly influenced teacher effectiveness. Post-hoc analysis using Tukey's HSD test further clarified the direction of these significant differences. The study emphasizes the importance of effective teacher training, professional development, and supportive school environments to enhance the quality of education and prepare students for future challenges.

Keywords: Teacher Effectiveness, Upper Primary School Teachers, Location of the School, Type of School Management, Teachers' Age

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1. INTRODUCTION

The effectiveness of teachers is a pivotal determinant of student achievement and overall educational quality. Recent studies underscore that teacher effectiveness is influenced by a complex interplay of various factors, including the location of the school, the type of school management, and the age of the teacher. This research aims to explore these dimensions within the context of upper primary education, seeking to understand how each factor contributes to, or detracts from, the efficacy of teaching practices. By examining the interplay between school location, type of management, and teacher age, this research seeks to contribute to a nuanced understanding of teacher effectiveness in upper primary education. Insights gained from this study can inform policy decisions and targeted interventions aimed at enhancing educational outcomes across diverse educational settings

2. THEORETICAL BACKGROUND

2.1. TEACHER EFFECTIVENESS

Given that teachers engage directly with students during the school day, they may be viewed as the primary contributor to students' performance. In order to generate high-quality students, a high-quality education system and practice must have qualified teachers. As a result, a key element influencing students' academic success on both a qualitative and quantitative level is teacher efficacy. Teacher effectiveness are influenced by many factors and in the challenging job requirements, demographic factors like gender, location of school, and type of school management can be a significant contributing factor contributing to the efficiency of teacher in the classroom. The constant requirement for professional growth, commitments, outcome based teachings within a limited resource, infrastructure and administration policy at times makes teacher vulnerable and might not be able to bring his or her full potential in the classroom. Hence it becomes imperative to study and analyse if these factors and consequently aid to the development of teacher effectiveness at the upper primary level teaching in Kanchipuram district of Tamil Nadu, India. The demographic variables are discussed below.

2.2. LOCATION OF THE SCHOOL

The geographical location of a school, encompassing urban, and rural settings, significantly impacts teaching effectiveness. Urban schools often benefit from better resources, access to professional development, and diverse student populations, which can enhance teaching practices and outcomes (National Center for Education Statistics, 2019). In contrast, rural schools may face challenges such as resource constraints, teacher shortages, and limited access to professional growth opportunities, potentially hindering teacher effectiveness (Azano & Stewart, 2015).

According to independent studies conducted by Kulkreti, 1990, and Halder & Roy (2018), male teachers in urban settings are more effective than teachers in rural regions, while no such difference is found when studying female teachers. An investigation into Psychological Correlates of Successful Teachers identified that competent teachers exhibit favourable attitudes towards children, show interest towards their profession, maintain high morality, are committed to social service, and have good command over the subject matter (Meera, 2017). Singh (1993), through his study, concluded that rural male and female teachers TE extensively correlates with attitude towards the profession. It is a general phenomenon in the Indian teaching scenario that the awareness about education and lack of education opportunities among the rural population is relatively high; moreover, on relative terms, teachers in rural India tend to take education aspect with not much seriousness. Hence, it impacts the type and level of teaching and TE. On the other hand, few research studies also state no significant influence of location of school and TE. So, it remains crucial for the researcher to find the relations between TE and the school's location in the present study.

2.3. TYPE OF SCHOOL MANAGEMENT

School management types—government, government-aided and private—introduce another layer of complexity. Private and charter schools often have more autonomy in curriculum design and teacher recruitment, which can lead to innovative teaching practices and higher teacher motivation (Chingos & West, 2012). However, public schools, despite facing bureaucratic constraints, typically have more standardized procedures and greater accountability measures in place, which can also foster effective teaching (Lubienski, 2006).

There is much talk on providing a positive environment for teachers in order to improve teaching. Most of the welfare measures adopted by the government for teachers have psychological principles footprints (Berry, 2002 and Serdyukov, 2017). That type of school management significantly impacts a teacher's work culture (Bredeson, 2000). An effective teacher has to gain support from fellow teachers and management in providing the necessary resources or at least space for the teacher to be creative (Tucker & Stronge, 2005 and Costin, 2017) and flexible. Though effective teachers are always creative wherever they work, the researcher believes that the support extended by the management will encourage many teachers to experiment with creativity while teaching upper primary school teachers (Ghavifekr & Rosdy, 2015 and Serdyukov, 2017). It also motivates the teacher to be more proactive in trying out new innovative strategies for the betterment of the students.

On the other hand, if we compare government school management with private school management, it seems like strict and demanding private school teachers' playa more constructive and pro-active role than teachers from government-managed schools. Though it is not an assertion, it is still a fact that every parent in India wants to put their child in a private-managed school. Going by this 'feel-good factor of parents', there are many reasons to believe that 'type of school management 'strongly influences TE. One needs to wait to see whether upper primary school teachers of Kanchipuram district significantly differ based on the type of school management.

2.4. AGE OF TEACHER

For more than 50 years, researchers have focused on the relationship between age and faculty performance. It may be especially important right now, considering the rising average age of schoolteachers. Recent reviews have shown that there is either no or a negative relationship between age and teaching quality. Teacher age and experience are crucial factors in determining teaching effectiveness. Younger teachers, often more familiar with contemporary educational technologies and methodologies, bring innovative approaches to the classroom (Darling-Hammond, 2010). Conversely, more experienced teachers tend to possess deeper content knowledge, refined classroom management skills, and a wealth of pedagogical strategies that contribute to effective teaching (Rockoff, 2004). However, studies suggest that teacher effectiveness does not linearly increase with age and experience, indicating the need for ongoing professional development (Rice, 2013). Over a seven-year period, Heilman and Armentrout (1936) were able to get consistent teacher ratings. This kind of design can mask any potential age differences in effectiveness and create the appearance of greater stability over time than actually exists by canceling out an increase in effectiveness for younger teachers at one measurement time with a decrease in effectiveness for older teachers at the same measurement time. There is a reasonable expectation that when a teacher spends more time instructing, the quality of their work will improve. Though many researchers agree with this opinion, it is not always true. There are times when more senior teachers underperform their younger counterparts due to differences in their physical health and personalities. Using the Teacher Efficiency Scale (TES), researchers discovered a substantial positive link between age and personal teaching effectiveness (Coladarci & Breton's, 1997). Johnson's (1976) survey showed the importance of chronological age as a hiring criterion for teachers. He showed that administrators generally preferred to hire teachers under 30 years of age (https://doi.org/10.1007/BF00124965). There are numerous reasons for this, including burnout, teacher qualities, and a general lack of desire and interest. Cornwell (1974) discovered that teacher effectiveness decreased with increasing age. The lack of available data made it impossible to draw definitive conclusions regarding whether or not age affects performance, which the current study will look at. One can also attribute the above inferences to the changing role of teachers, and the difficulty seniors face in adapting to the modern era as a significant factor. The goal of the current study was to more thoroughly and conclusively examine the relationship between age and teacher effectiveness.

2.5. METHOD

Examining the link and resulting impact of age, type of school management, and the location of the school where the teacher works on the efficacy of upper primary school teacher is the primary goal of this study. Measures of teacher effectiveness included content knowledge, classroom management, teacher characteristics, interpersonal relationships, and preparation and planning for instruction. It is also crucial to remember that this study used a descriptive research design. Without necessarily changing behavior or attempting to make trite remarks, this design aids in determining the sample at the precise moment, adopting one-time observation, and evaluating the strength of the association between variables. In an effort to analyze and standardize the data, the impact of demographic factors on teacher effectiveness was investigated using SPSS 18 software.

2.6. SUBJECTS

The geographical distribution of the schools in the Kanchipuram district served as the basis for sample selection. Since they make up a larger portion of the population in Kanchipuram's rural areas, the majority of the sample came from government and government-aided schools. Seven hundred instructors with at least two years of full-time faculty positions in Kanchipuram district's upper primary schools made up the sample. The Research Advisor (2006) was used to calculate the sample size. The study used multistage sampling procedures, which include basic random sample,

stratified sampling, and deliberate sampling. A structured questionnaire based on the examined literature was used to collect data for this investigation. The Likert scale with five points was employed. This aids in figuring out how much participants or responders agree with a certain item on the instrument. Descriptive statistics, such as mean, SD, skewness, and kurtosis, were used to eliminate 18 respondents from the initial sample of 718 after normality and linearity were examined. Less than 3% of the data was missing, thus the list-wise elimination procedure was applied. 700 respondents made up the study's final sample, which is regarded as accurate. When participants filled out the teacher effectiveness scale, their age and other demographic information was immediately gathered.

2.7. MEASURE OF TEACHER EFFECTIVENESS

All of the sample teachers in the schools were rated by using self perceived questionnaire which consist of 30 items in five point likert scale modified teacher effectiveness scale by Umme Kulsum. The Teacher-Rating Questionnaire's average internal consistency reliability was 0.939.

3. RESULTS

Table 1 *Location of the School, on Teacher Effectiveness of Upper Primary School Teachers*

Category			M	S.D.	df	t- value	p- value	Inference
Location of the School	Equal variances assumed	Rural	89.465	11.310	698	1.130	0.259	Not Significant
		Urban	88.456	10.795				

*p< 0.05

So, there is no compelling evidence for the significant influence of 'Location of the School' on Teacher Effectiveness of teachers. Therefore, teachers working in rural or urban upper primary schools have no statistically significant influence on *Teacher Effectiveness* in the Kanchipuram district.

Table 2 *One-Way ANOVA between Type of School and Age on Teacher Effectiveness of Upper Primary School Teachers*

Category	Source	Sum of Squares	df	Mean Square	F – value	p-value	Inference
Type of School Management	Between Groups	13795.772	2	6897.886	65.849	0.000*	Significant
	Within Groups	73012.657	697	104.753			
	Total	86808.429	699				
Age	Between Groups	2954.565	2	1477.283	12.279	0.000*	Significant
	Within Groups	83853.863	697	120.307			
	Total	86808.429	699				

*p<0.05

From Table- 2, it can be viewed that the F-value for 'Type of School' of Teacher Effectiveness is 65.849, which is statistically significant at 0.05 level with df=2/697. It indicates that the mean scores of TE of government, government-aided and private school teachers differ remarkably. So, there is a significantly strong influence of 'Type of School' on Teacher Effectiveness. In order to understand the influence of Government, Government-Aided and Private school teachers on TE, the data need to be analyzed further using Tukey's HSD (Vide Table – 2A).

The F-value for teachers of TE about their age is 12.279, which is statistically significant at the 0.05 level with df=2/697 (Vide Table 2). The mean scores of Teacher Effectiveness for the age group of 'less than or equal to 30 years', 'between 31 to 45 years' and 'above 45 years' differ remarkably. So, there is a notable influence of age on TE among

upper primary school teachers. Tukey's Post Hoc Test (Vide Table 2B) was administered to dissect the data further and to find the measurable difference in the age group of teachers concerning Teacher Effectiveness.

Table 2A *Post Hoc - Tukey's HSD for Type of School, Mean difference, SE, and significance among mean scores of Teacher Effectiveness*

Dependent Variable	(I) Type of School	(J) Type of School	Mean Difference (I-J)	S.E.	p-value	Inference
Teacher Effectiveness	Government	Government – Aided	-6.844	1.144	0.000*	Significant
		Matriculation	-9.489	0.849	0.000*	Significant
	Government Aided	Government	6.844	1.144	0.000*	Significant
		Matriculation	-2.644	1.194	0.069	Not Significant
	Matriculation	Government	9.489	0.849	0.000*	Significant
		Government – Aided	2.644	1.194	0.069	Not Significant

**p < 0.05.*

Table 2A shows a statically significant difference in the mean score of Teacher Effectiveness between government teachers (M=84.72) and government-aided teachers (M=91.56). In contrast, a relatively insignificant difference is found in comparing mean scores between government-aided teachers and private matriculation school teachers (M=94.21). Moreover, Teacher Effectiveness for Private school teachers is relatively superior for the given sample (vide Table 2A), which is in expected lines in Tamil Nadu School.

Table 2B *Post Hoc - Tukey's HSD for Age, Mean difference, SE, and significance among mean scores of Teacher Effectiveness*

Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	S.E.	p-value	Inference
Teacher Effectiveness	Less Than 31 years	31 to 45 years	4.512	1.294	0.002*	Significant
		Above 45 years	6.266	1.268	0.000*	Significant
	31 to 45 years	Less Than 31 years	-4.512	1.294	0.002*	Significant
		Above 45 years	1.753	0.896	0.124	Not Significant
	Above 45 years	Less Than 31 years	-6.266	1.268	0.000*	Significant
		31 to 45 years	-1.753	0.896	0.124	Not Significant

**p < 0.05.*

From Table 2B it is inferred that the mean score of *Teacher Effectiveness* among upper primary school teachers 'below 31 years' of age is significantly higher compared with the mean scores of teachers 'between 31 to 45 years' of age and 'above 45 years' of age. Additionally, no statistically significant difference is found in comparing the mean scores of teachers 'between 31 to 45 years' and 'above 45 years' of age. Teachers classified as 'less 31 years' of age have significantly higher levels of Teacher Effectiveness (M=93.835) than teachers classified as 'between 31 and 45 years' of age (M=89.322) or teachers classified as 'above 45 years' of age (M=87.569).

4. DISCUSSION

4.1. LOCATION OF SCHOOL AND TEACHER EFFECTIVENESS

According to a study by Otu Bernard Diwa et al. (2023), the location of the school has a big impact on how well students learn. Similar findings were noted by Adeyemi (2013), who claimed that resources, technology availability, teacher quality, and geographic locations (rural versus urban) are the main causes of differences in teacher effectiveness. However, the current study's findings show that teacher efficacy is unaffected by the school's location.

4.2. TYPE OF SCHOOL MANAGEMENT AND TEACHER EFFECTIVENESS

A school's human resources are one of its most valuable assets, and the ongoing change that has become necessary in schools today includes teacher development ideals. High performance is becoming more and more necessary due to the school echo system's changing environment and competitive landscape. In order to thrive and maintain performance in the fiercely competitive academic setting, schools must make sure that teachers have the necessary skills and that they have access to crucial institutional support strategies that will improve the efficiency of contemporary knowledge-sharing practices, high-quality research productivity, and sizable administrative procedures, among other things. Thus, a key factor in accomplishing the school's main objective is the performance of its teachers. Higher academic scores are awarded to those who are deemed worthy in terms of character and learning because schools' ultimate purpose is to grow and equip people mentally, morally, and physically. According to other researchers, educational institutions should start offering top-notch leadership training and education, as well as develop strong infrastructure and resources that offer high-quality education through a thorough and practical curriculum backed by sound methodology that will transform theory into practice (Adeyeye, 2009; Aina, 2010; Falola et al., 2016). It is observed from table 2A that private schools cater to the needs and requirements of its students, teachers and school infrastructure. This has resulted in quality of curriculum transaction whereby promoting teacher effectiveness. It doesn't mean government and government-aided teachers are not effective, it is only evident that a stable, continuous, support in a system of healthy competition will enhance motivation and drive to reach higher levels of achievement. These competitive spirits are more encouraged in private school than government and aided schools could be a reason for negative scores on teacher effectiveness on comparing with private schools. Another aspect being in private management performance is strongly associated with pay and continuity of service, hence there is a intrinsic drive among teachers. The present level of institutional support to teachers performance with reference factors like preparation and planning, classroom management, knowledge updating, teacher characteristics and interpersonal relations are quite evident in private schools. But in government schools facilities are provided but support to availability of timely resources is less. Schemes of government and aided school are better but it is time consuming to reach to the teacher and the student, moreover the student population in the classroom is also high adding to the draining of energy of teachers. Hence, new and innovations are not a priority in government run schools. Another major aspect in terms of disparities in teacher effectiveness results is government focuses on enhanced incentives to teachers and bank on their performance in classrooms while private run schools invest in resources for teaching and infrastructure, here the support is for the profession, while for government teachers it is supported with financial incentives which is more beneficial for personal growth. Even though these are not verified in this research, the present study is forced to interpret the data based on the social cues observed and researched from various literature sources.

The research currently available on the topic of institutional support techniques and the efficacy of job responsibilities of upper primary school teachers in Kanchipuram district, particularly at government and government-aided schools, contains certain knowledge gaps. It should be mentioned that previous research examined the relationship between employee engagement, job commitment, and participation as well as the moderating effect of institutional encouragement on electronic education, business orientation, creativity, and success. However, this current study has provided new insights to curious researchers to focuses on the strategic institutional supports between government and private run schools and how effective strategic support will drive the strategic goal of the school and education system via outstanding job performance of the teachers in government and government-aided schools, so as to enhance the effectiveness of teachers can be strengthened further as per the expectations of the society at large.

4.3. AGE AND TEACHER EFFECTIVENESS

For the present study it is clear that teaching effectiveness clearly decreases with instructor age, which is in accordance with earlier studies (Cornwell, 1974). Moreover, given that younger teachers are frequently given extensive beginning courses, the negative relationship may be stronger than has been demonstrated here. Put differently, the evaluations of instructors who were younger might have been influenced by their greater energy and ability to adjust to current trends. Despite a lot of conjecture regarding a potential linear relationship between teacher effectiveness and age, the current study's shortcoming is the data it used. For instance, it only included data from teachers and excluded student perception, and it is not a longitudinal study. The sample size at various ages for any set of teachers with long-

term appointments will be highly variable. In the event that future studies continue to show a negative relationship between teaching effectiveness and age, a number of potentially complementary factors may be proposed as causes of age-related declines in teaching quality. For instance, individual characteristics may be at play, which will lower teachers' perceived effectiveness. These elements could include preparation and planning, classroom management, subject-matter expertise, and changes in personality variables like motivation (Eysenck, in press). Furthermore, Blackburn and Lawrence (1986) contended that there are few outside incentives for excellent instruction. Therefore, there aren't many outside incentives to stop the downward trend in teaching quality once internal factors start to influence it. The halo effect on instructors' perceptions, employment needs, and teaching practices could be another reason for the reduction. In other words, as instructors get older, they join a group that is typically thought to be less capable of performing a range of physical and mental tasks (Schaie, 1988). While some study suggests that age stereotypes could arise in work performance ratings, this seems to depend on the behaviour that is receiving a low rating. As the age effect was observed for both the items evaluating highly specialised teaching behaviours and the overall effectiveness item in Table 2B, no firm conclusions can be drawn about the possible impact of an age bias in the current investigation. The generation-gap hypothesis, which holds that older faculty members are thought to be less effective, is an additional explanation for apparent age reductions in teaching effectiveness, albeit it needs further research. The teaching behaviours graded in this study seem to show a slight generalised deterioration with age; nonetheless, a wealth of evidence points to a major influence of individual differences on the pervasiveness of the ageing process. Overall, it can be said that some people will likely experience the perceived reduction in teaching more than others and that it will likely show up at varying ages depending on the individual. Due to the nature of the study, testing these impacts was not feasible in this particular instance. In keeping with these ideas, there is evidence to suggest that as faculty members get older, they devote more time to managerial or administrative tasks, such as consulting or participating on committees. Consequently, elderly faculty members may have a significant impact through management as well as teaching. Future studies on this third aspect of faculty performance should continue to be quite interesting. However, this is still a significant problem that requires more investigation, which will require other study projects.

5. CONCLUSION

It is becoming more and more important that teachers perform better on the job in the academic setting. Among the many issues that teachers deal with are those related to student learning, instructional facilities, and quality instruction. The complexities and responsibilities of a teacher in a school is growing, while, parents and society expects the very best from the teachers. Upper primary teachers have a unique responsibility as students will be in a transition from childhood to adolescents. Given the context, the study focussed the influence of location of school, type of school management, and age on teachers' efficiency in teaching. It is observed from the study that teacher working under private management have better teaching efficiency. Moreover, teachers who are young and have recently joined the profession are more efficient than senior teachers. Both the results clearly demonstrate, the fact the efficiency of teacher inthe modern classroom at the upper primary level can be enhanced by bringing new teachers who are recent pass outs and placed on a temporary appointment. furthermore, schools should provide institutional support such as necessary resources to teach, conference sponsorship, and other incentives which are academic in nature that will stimulate upper primary school teachers commitment to teaching, knowledge sharing techniques and community impact. Furthermore, it is anticipated that schools with systematic monitoring and support systems for teachers will have higher levels of engagement and productivity. This is due to the likelihood that the quality of institutional support will affect teachers' job engagement and commitment levels. Furthermore, a teacher's effectiveness is not significantly impacted by the school's location. The ramifications call for a friendly working relationship between administrators and faculty to create more cohesive institutional support that will inspire exceptional work output. Schools will be better able to handle a dynamic and competitive academic environment as they include more institutional assistance.

6. LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDIES

The study's scope is restricted since it solely examines upper primary school instructors in Tamil Nadu, India's Kanchipuram district. This suggests that the results might not apply to other states within the nation. Thus, additional research may broaden the study's reach. Furthermore, there's a chance that other variables could have an impact on how well instructors do their job duties in relation to age and the sort of school management. It is advised that additional

variables be added as intervening variables, such as the work environment, collaboration among schools, instructors' personalities, educational resources, methodical monitoring, and partnership, among others. Additionally, student involvement in evaluating upper primary teachers' effectiveness may provide fresh, illuminating perspectives. Additionally, as this study only employed a quantitative technique, it is proposed that future research use a combination of methods.

CONFLICT OF INTERESTS

None.

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REFERENCES

Falola, H. O., Adeniji, A. A., Adeyeye, J. O., Igbinnoba, E. E., & Atolagbe, T. O. (2020). Measuring institutional support strategies and faculty job effectiveness. Heliyon, 6(3). https://doi.org/10.1016/j.heliyon.2020.e03461

Karen L. Homer, Harry G. Murray, and J. Philippe Rushton (1989). Relation Between Aging and Rated Teaching Effectiveness of Academic Psychologists, Psychology and Aging 4(2), 226-229.

Otu Bernard Diwa, Ofie Maria Sunday, Richard Ayuh Ojini, Abang Kingsley Bekom (2023). School location and levels of teaching effectiveness of mathematics teachers in terms of knowledge of subject matter and effective classroom communication in calabar education zone of cross river state, Nigeria, Global Journal of Educational Research 22(1):11-23.

Cornwell, C. D. (1974). Statistical treatment of data from student teaching evaluation questionnaires. Journal of Chemical Education, 51,155-160.

Eysenck, H. J. (in press). Personality and aging: An exploratory analysis. Journal of Social Behavior and Personality

Blackburn, R. T., & Lawrence, J. H. (1986). Aging and the quality of faculty job performance. Review of Educational Research, 56, 265-290.

Schaie, K. W.(1988). Ageism in psychological research. American Psychologist,43, 179-183.

Heilman, J. D., & Armentrout, W. D. (1936). The ratings of college teachers by their students. The Journal of Educational Psychology, 27, 197-216.

Ghavifekr, S., & Rosdy, W. A. W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. International Journal of Research in Education and Science, 1(2), 175-191.

Costin, C. (2017, August 03). What is the role of teachers in preparing future generations? https://www.brookings.edu/opinions/what-is-the-role-of-teachers-in-preparing-future-generations/

Tucker, P. D., &Stronge, J. H. (2005). The power of an effective teacher and why we should assess it. Linking Teacher Evaluation and student learning.

Bredeson, P. V. (2000). The school principal's role in teacher professional development. Journal of in-service education, 26(2), 385-401.

Berry, M. A. (2002). Healthy School Environment and Enhanced Educational Performance: The Case of Charles Young Elementary School, Washington, DC.

Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it? Journal of Research in Innovative Teaching & Learning, 10(1), 4-33.

Johnson, Bobby R. (1976). What administrators look for in teacher interviews. Phi Delta Kappan, November, 283.

Cornwell, C. D. (1974). Statistical treatment of data from student teaching evaluation questionnaires. Journal of Chemical Education, 51, 155-160