

Evaluating Teacher-Leaders for Careers as Administrators: Effects of Job Attributes, Teacher Role, and Teaching Assignment

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Problem

- The shortage of public school administrators is becoming a crisis nationwide due to:
 - Massive retirements (Galluzo, 1999; McAdams, 1998; National Association of Elementary and Secondary School Principals, 1998; Winter, Rinehart, & Muñoz, 2002)
 - Lack of sufficient numbers of qualified applicants (Bowles, King & Crow, 2000; Herbert, 2000; Whitaker, 2001).

Problem

- Many of the current vacancies in school administration are due, in part, to:
 - Aging school administrative workforce
 - Increasing public pressure to reform public schools
 - Increased pressure on school administrators to be accountable for improving student academic achievement (Duke, 1998; Golanda, 1991; Hess, 1985; Marshall, 1992; Murphy & Beck, 1994).

Theoretical Frameworks

- Rynes & Barber (1990) Applicant Attraction Model – The evaluation focused on the job attributes that affect attraction to the Assistant Principal job.
- Schwab, Rynes, & Aldag (1987) – The evaluation focused on personal characteristics that influence overall attraction to the Assistant Principal job.

Theoretical Connections

- Rynes & Barber (1990) – Job Characteristics:
 - Job Attributes (Instruction, Discipline)
- Schwab, Rynes, & Aldag (1987) – Personal Characteristics:
 - Teacher Leader Role (Counselor, SBDM Member, Department Chair / Team Leader, Resource Teacher).
 - Teaching Assignment Area (Core content, Non-Core content).

Research Questions

1. Does an individual's teacher-leader type (counselor, SBDM member, department chair or team leader, resource teacher) impact a teacher's attraction to the job of assistant principal?
2. Does an individual's current or past teaching assignment (core content, non-core content) impact a teacher's attraction to the job of assistant principal?
3. Does the AP job emphasis (instruction, discipline) impact a teacher's attraction to the job of assistant principal?
4. Do two-way or three-way interactions among teacher-leader type, current or past teaching assignment area, and job emphasis impact a teacher's attraction to the job of assistant principal?

Method

- Experimental Design – participants role-played as job applicants
- Three-way (4 x 2 x 2) completely crossed fixed-factor analysis of variance (ANOVA)
 - Three independent variables
 - One continuous dependent variable measuring overall attractiveness of the Assistant Principal job.

Independent Variables

1. Teacher-leader type (school counselor, SBDM member, department chair/team leader, resource teacher)
2. Current or past teaching assignment (core content, non-core content)
3. AP job attributes (instructional leadership, discipline).

Dependent Variable

- The dependent variable in the evaluation was an additive composite score for applicant job evaluation of an assistant principal position.
- The items, scales, and scale anchors were:
 - “If offered, how likely would you be to accept an interview for the assistant principal position described?”
(1 = Very unlikely to accept, 5 = Very likely to accept)
 - “If offered, how likely would you be to accept a job offer for the assistant principal position described?”
(1 = Very unlikely to accept, 5 = Very likely to accept).

Participants

- Population – All middle and high school teacher-leaders in the Jefferson County Public School system (93,000 students)
- Power analysis indicated a minimum sample size ($N = 192$) (Cohen, 1998)
- Response rate = $561 / 790 = 71\%$
- Randomly selected participants which were divided into 16 cells (12 each)

Pilot

- 46 Counselors completed all instruments.
- The counselors then completed a questionnaire to check manipulation of the job attributes variable (instruction, discipline).
- Conducted an independent-sample t-test
 - $t = 10.5$, $p < .001$, significant difference
- Conducted a composite score reliability assessment for the dependent variable
 - Alpha = .97, internally consistent

Analyses

1. Compute descriptive statistics and frequencies to create a demographic profile of the study participants.
2. Conduct a reliability analysis for the composite scale serving as the dependent variable in the research.
3. Compute a three-way ANOVA to analyze the impact of the three independent variables of interest on the dependent variable. The ANOVA served as the primary statistical analysis in the evaluation research.

Descriptive Statistics

- The four groups were similar with respect to age.
- Most members of each group were females, although females were less dominant for the SBDM group.
- Whites also dominated the Department Chair/Team Leader group (White = 91.7%).
- All groups, except the resource teachers (experience = 20.7 years) averaged 13 years of teaching.
- About a third of the Counselors and SBDM teachers were principal certified.

Reliability Analysis

- The evaluators combined the two items to form an additive composite score.
- The procedure used to assess the reliability of the composite score serving as the dependent variable was coefficient alpha.
- The overall coefficient alpha was .97, and exceeded the minimum (.60) recommended by Nunnally and Bernstein (1994) for use of a composite score in statistical analysis.

ANOVA Results

- Based on an alpha level of .05, there was a significant main effect for current or past teaching assignment (core content, non-core content) [$F(1, 176) = 8.5, p < .05$].
- Participants whose primary teaching responsibility was in core content subjects (i.e., math, science, social studies, English/language arts) rated the job significantly higher ($M = 6.9$) than those participants whose primary teaching responsibility was in non-core content subjects (e.g., art, music, ECE, technical, other)

Main Effect

- To assess the practical significance of the significant main effect, the evaluators computed the omega-squared statistic (Keppel, 1991, pp. 222-223).
- From the computed omega-squared ($\omega^2 = .035$) the evaluators determined that current or past teaching assignment explained 3.5% of the variance in job rating.
- The magnitude of this omega-squared fell between the levels described by Keppel (1991, p. 74) for a small effect size ($\omega^2 = .01$) and a medium effect size ($\omega^2 = .06$).

Other Findings

- The resource teachers rated AP jobs emphasizing instructional leadership ($M = 7.3$) significantly higher than AP jobs emphasizing student discipline ($M = 4.6$).
- The procedure used to conduct this analysis was the independent samples t-test ($t = 3.2, p < .01$).

Findings I

- Using the framework of the Schwab, Rynes, and Aldag (1987) model, personal characteristics of the teacher-leaders revealed a significant main effect for current or past teaching assignment.
- Teacher-leaders whose primary teaching responsibility was in the core content areas (math, science, social studies, English/language arts) found the job more attractive than those from the non-core content areas.

Findings II

- Core content teachers may believe their content areas (e.g., math, science) are more complicated than non-content areas (e.g., health/physical education) and, therefore, be more attracted to a complex task such as school administration.
- Non-core content teachers may have less confidence in their ability to understand the complexities inherent in reforming pedagogy and instructional practices, particularly in the core content areas.

Findings III

- Using the framework of the Rynes and Barber (1990) applicant attraction model, manipulations of the Assistant Principal job attributes affected the number of teacher-leaders attracted to the Assistant Principalship.
- Although there was not a significant main effect for job attributes, further statistical analysis revealed that resource teachers were more interested in the AP job when it emphasized instructional leadership versus student discipline.

Research Implications II

- Future research on the AP position should include additional variables such as economic variables, demographic variables, school location, training opportunities, diversification of job duties, and potential restructuring of the job.
- Two variables that merit future investigation include school level (middle, high) and applicant gender.
- Future AP studies should also address recruitment techniques such as recruitment interviews, recruitment advertisements, recruitment videos, and supervisor sponsorship.