



## Automated Text Data Mining Analysis of Educational Leadership Research Literature of EMAL Articles From 1972 to 2016

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**Purpose:** The purpose of this study is to describe the underlying topics and the topic evolution in the 45-year (1972-2016) history of educational leadership research literature.

**Method:** We used automated text data mining with Latent Dirichlet Allocation (LDA) to examine the full text of the entire publication history of all 1,749 articles published in Educational Management Administration and Leadership (EMAL) from 1972 to 2016. Given the computationally intensive data analysis required by probabilistic topic models, relying on high-performance computing, we used a 10-fold cross validation to estimate the model in which we categorized each article in each year into one of 17 latent topics and illustrated the rise and fall of topics over the EMAL's 44-year history.

**Findings:** Our model identified a total of 17 topics from the 1972 to 2016 EMAL corpus. Among them, six topics—ethical leadership, transformational leadership, female leadership, distributed leadership, instructional leadership, and head-teacher—gained research attention over the 44-year time period, whereas the research interest appears to have declined for the topic of theory movement of education since the 1990s. However, topics like instructional leadership, ethical leadership, and head-teachers appear to have attracted more and more interests since 2000s. Other topics waxed and waned over the past four decades.

**Implications:** This study maps the knowledge building of educational leadership over the past 44 years and sheds new light on the further development of educational leadership research.



# 7

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