

Sociological Frameworks in Research Management

Traditional professional frameworks provide valuable insights into research management's evolution but must be modified to address the field's emerging characteristics, including identity formation and boundary challenges.

Abstract

Nine studies indicate that established sociological frameworks illuminate key features of research management and administration while often requiring adaptation. One study using symbolic interactionism shows that research administrators engage in identity work to negotiate academic and administrative roles. Another applying Bourdieu's theory of social practice describes a "shifting arena" in which professional boundaries blur between academia and management. Two studies draw on the sociology of professions to clarify professional jurisdiction and to frame research management as a public service or emerging expert field, as seen in evaluative bibliometrics and models that emphasize specialized knowledge. Complementary approaches include one study that uses design-based research to forge a theory–practice link and another that develops a tailored Professional Competency Framework for the field.

Research methods varied—from qualitative interviews (2 studies) and theoretical synthesis (4 studies) to surveys, thematic analysis, and framework development—while three studies did not specify a professional framework. The papers collectively suggest that traditional professional frameworks remain useful for parsing the evolution of research management. They highlight identity formation, institutional boundary challenges, and the need for competency development as critical components that define the emerging and hybrid nature of the occupation.

Paper search

Using your research question "How do existing professional sociological frameworks for occupational establishment apply to the emerging field of research management and administration?", we searched across over 126 million academic papers from the Semantic Scholar corpus. We retrieved the 50 papers most relevant to the query.

Screening

We screened in papers that met these criteria:

- **Subject Focus:** Does the study focus on research management, research administration, or related professional roles in academic/research institutions?
- **Theoretical Framework:** Does the study examine professional/occupational sociological frameworks OR propose/analyze occupational establishment frameworks?
- **Professional Development Context:** Does the study analyze emerging professions or occupational groups in their development process?
- **Methodological Approach:** Does the study present empirical data (qualitative, quantitative, or mixed methods) OR constitute a systematic review/meta-analysis with clear methodological foundations?
- **Analysis Level:** Does the study address profession-wide establishment and development processes (rather than focusing solely on individual career development)?

- **Evidence Base:** Does the paper present original research or analysis with clear theoretical or empirical foundations (rather than being an opinion piece or commentary)?

We considered all screening questions together and made a holistic judgement about whether to screen in each paper.

Data extraction

We asked a large language model to extract each data column below from each paper. We gave the model the extraction instructions shown below for each column.

- **Research Management Professionalization Approach:**

Identify and describe the specific sociological or professional framework used to analyze research management as an emerging profession. Look in the methods, introduction, or discussion sections for:

- Explicit theoretical frameworks (e.g., sociology of professions, competency frameworks)
- Key conceptual approaches to professionalization
- Specific theoretical lenses applied to research management

If multiple frameworks are mentioned, list all. If no explicit framework is identified, write "Not specified". Be precise in capturing the theoretical approach used.

- **Professionalization Dimensions Examined:**

Extract the specific dimensions or aspects of professionalization discussed in the study. Look for:

- Competency definitions
- Institutional structures
- Professional identity markers
- Occupational boundaries
- Skill development frameworks

List each dimension explicitly. If the study provides a detailed breakdown, capture the full range of dimensions. If dimensions are implicit, summarize the key characteristics discussed.

- **Geographical and Institutional Context:**

Identify the specific geographical region and institutional setting of the study:

- Geographic location (country/region)
- Type of institutions studied (universities, research organizations)
- Scope of research management context (national, regional, institutional)

If multiple contexts are discussed, list all. If context is not clearly specified, note "Not clearly defined".

- **Research Methodology:**

Describe the primary research methodology used:

- Qualitative, quantitative, or mixed methods
- Data collection techniques (interviews, surveys, document analysis)
- Sample size and composition
- Key analytical approaches

Provide a concise but comprehensive description of the methodological approach. If methodology is complex or multi-staged, capture the primary method and key analytical techniques.

- **Primary Findings on Research Management Professionalization:**

Extract the main findings related to research management as an emerging profession:

- Key insights about professional status
- Challenges in professionalization
- Proposed frameworks or solutions
- Theoretical contributions

Focus on findings directly addressing the professionalization of research management. Summarize the most significant theoretical or empirical insights. If findings are nuanced, capture the complexity of the arguments.

Results

Characteristics of Included Studies

Study Focus	Research Approach	Professional Framework Applied	Key Findings	Full text retrieved
Occupational identity of research administrators	Qualitative; interviews with 27 research administrators	Symbolic interactionism, focusing on identity work	Research administrators engage in identity work to establish credible occupational identities, facing challenges from academic colleagues	Yes
Theoretical model of research administration as a public service profession	Theoretical synthesis	Sociology of professions	Proposes integrating research administration characteristics as a public service profession	No
Building the science of research management	Conceptual paper	Design-Based Research (DBR) from education research	Suggests using DBR to build the science of research management and strengthen theory-practice connection	No

Study Focus	Research Approach	Professional Framework Applied	Key Findings	Full text retrieved
Evaluative bibliometrics as an emerging profession	Application of theoretical framework	Sociology of professions	Applies sociology of professions framework to evaluative bibliometrics	No
Research management in African universities	Survey-based study	No mention found	Identifies lack of research management systems in African universities as a challenge to securing funding	No
Expert labour and new expert occupations	Theoretical exploration	No mention found	Explores differences between established and emerging forms of expert work	No
Changing roles of research managers in English universities	Qualitative study	Bourdieu's theory of social practice	Identifies a 'shifting arena' where research management intersects with academia	No
Evolution of research management and administration as a profession	Exploratory and thematic analysis	No mention found	Traces evolution of research management into a self-contained occupation requiring specialized knowledge and skills	Yes
Professionalization of research management in Southern Africa	Development and analysis of competency framework	Professional Competency Framework	Develops a Professional Competency Framework for research management	No

Our analysis of the included studies revealed:

- Study focuses : We found a diverse range of study focuses reported across the 9 studies, with each

study addressing a different aspect of research management according to our analysis.

- Research approaches :
 - Theoretical or conceptual approaches were most common, used in 4 studies
 - Qualitative approaches were used in 2 studies
 - Other approaches (survey, exploratory, framework development) were each used in 1 study
- Professional frameworks applied :
 - We didn't find mention of a specified framework for 3 studies in the available full texts or abstracts
 - The sociology of professions framework was used in 2 studies
 - Other frameworks (symbolic interactionism, design-based research, Bourdieu's theory, competency framework) were each used in 1 study

Thematic Analysis

Professional Identity Formation

Our analysis identified professional identity formation as a crucial theme across several studies:

- Identity work : Allen-Collinson (2007) highlights how research administrators engage in "identity work" to establish credible occupational identities, often facing challenges from academic colleagues.
- Spanning boundaries : The process of identity formation is complex, as research administrators often span the divide between academic and administrative worlds.
- "Shifting arena" : Shelley (2010) introduces the concept of a "shifting arena" where the research manager field intersects with the academic field, further complicating the process of identity formation.
- Evolution of roles : Shykhnenko (2023) traces the evolution of research management roles, noting how they have been linked to positions such as mediator/expediter, mediator/regulator, and project manager over time.

Institutional Recognition and Boundaries

The challenge of establishing clear institutional recognition and boundaries for research management emerged as a recurring theme:

- Lack of systems : Kirkland (2008) highlights the lack of research management systems in African universities as a significant challenge, potentially widening their disadvantage in securing external funding.
- Public service profession : Atkinson et al. (2007) propose integrating research administration characteristics as a public service profession, suggesting a way to establish clearer institutional boundaries.
- Competency framework : Williamson et al. (2020) develop a Professional Competency Framework, which can be seen as an effort to define and formalize the boundaries of the profession.
- Professional jurisdiction : Jappe and Heinze (2021) apply the concept of "professional jurisdiction" from the sociology of professions to evaluative bibliometrics, highlighting the importance of defining the tasks and activities that societies entrust to experts in emerging professions.

Competency Development and Professionalization

The development of competencies and formal professionalization processes was identified as a key theme across several studies:

- Competency framework : Williamson et al. (2020) directly address this through their development of a Professional Competency Framework for research management.
- Professional education : Shykhnenko (2023) emphasizes the importance of professional education, certification, and international professional development in the evolution of research management as a profession.
- Design-Based Research : Huang and Hung (2018) propose a novel approach to competency development by suggesting the use of Design-Based Research to build the science of research management.

Theme	Supporting Evidence	Theoretical Framework Application	Implementation Examples
Professional Identity Formation	Research administrators engage in identity work (Allen-Collinson, 2007); "Shifting arena" concept (Shelley, 2010)	Symbolic interactionism (Allen-Collinson, 2007); Bourdieu's theory of social practice (Shelley, 2010)	Identity work strategies; Navigating academic-administrative boundaries
Institutional Recognition and Boundaries	Lack of research management systems in African universities (Kirkland, 2008); Professional jurisdiction in evaluative bibliometrics (Jappe and Heinze, 2021)	Sociology of professions (Jappe and Heinze, 2021)	Development of research management systems; Defining professional jurisdictions
Competency Development and Professionalization	Professional Competency Framework (Williamson et al., 2020); Professional education and certification (Shykhnenko, 2023)	Professional Competency Framework (Williamson et al., 2020); Design-Based Research (Huang and Hung, 2018)	Competency framework implementation; Professional certification programs

Framework Application Analysis

Alignment with Traditional Professional Frameworks

Our analysis revealed varying degrees of alignment with traditional professional frameworks across the included studies:

- Sociology of professions : This well-established framework is explicitly applied in some studies (Atkinson et al., 2007; Jappe and Heinze, 2021). It provides a lens to examine:
 - Professional jurisdiction
 - Specialized knowledge

- Establishment of professional boundaries
- Symbolic interactionism : Allen-Collinson (2007) applies this framework, focusing on identity work. This approach aligns with more recent trends in professional studies that emphasize:
 - Individual agency
 - Identity construction in the professionalization process

Adaptations for Research Management Context

Several studies propose or apply adaptations of existing frameworks to better fit the unique context of research management:

- Design-Based Research : Huang and Hung (2018) suggest using this methodology from education research to build the science of research management. This novel application aims to bridge the gap between theory and practice in the field.
- Bourdieu's theory of social practice : Shelley (2010) applies this to understand the changing roles of research managers. This adaptation allows for a nuanced examination of the "shifting arena" where research management intersects with academia.
- Professional Competency Framework : Williamson et al. (2020) develop this framework, tailoring competency-based approaches to the specific needs of research management. It seeks to define the unique set of skills and knowledge required in the field.

Framework Element	Traditional Application	Research Management Application	Key Differences
Professional Jurisdiction	Defining exclusive areas of expertise (Sociology of professions)	Applied to evaluative bibliometrics (Jappe and Heinze, 2021)	Focus on emerging, interdisciplinary areas of expertise
Identity Work	Individual agency in professional identity (Symbolic interactionism)	Research administrators establishing credible identities (Allen-Collinson, 2007)	Emphasis on navigating academic-administrative boundaries
Field Theory	Understanding power dynamics in professional fields (Bourdieu)	Analyzing "shifting arena" of research management (Shelley, 2010)	Focus on intersection between academic and administrative fields
Competency Frameworks	Defining standardized professional competencies	Tailored Professional Competency Framework for research management (Williamson et al., 2020)	Specific focus on research management skills and knowledge
Design-Based Research	Improving educational practices	Proposed for building science of research management (Huang and Hung, 2018)	Novel application to professional development in research management

Our analysis of the application of five theoretical frameworks to research management revealed:

- Each framework has a distinct application in research management that differs from its traditional use.
- The key differences consistently highlight the unique position of research management at the intersection of academic and administrative domains.
- There is a focus on interdisciplinary, emerging areas of expertise in the research management applications.

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