





# TALENT MANAGEMENT PRACTICES IN HIGHER EDUCATIONAL INSTITUTIONS- A BIBLIOMETRIC ANALYSIS

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*Talent management practices are becoming crucial in educational institutions. These practices seek to discover and develop the talents and abilities of educators, staff members and students, ensuring that the institution can deliver quality education while remaining competitive. The study attempts to identify important topics, trends, and notable publications in this field. The analysis covers numerous sources during a pre-determined period (2018-2022), including books, conference proceedings, and scholarly journals. The Bibliometric analyses were conducted using data from the Scopus database (Total Scopus Data=55), VOSViewer, the Bibliometrics library, and the Biblioshiny platform of the RStudio® software. The results show that several themes like significant authors, publications, references, institutions, and nations' information have emerged as essential elements of talent management in educational settings. We also analyse the geographic distribution, regional differences and possible research areas for cross-cultural comparisons. This study analyses the literature on these themes and contributes to our understanding of how to handle talent management in educational institutions.*

**KEYWORDS:** Employee Commitment, Organizational Performance, Sustainable Development, Bibliometric, Biblioshiny App

## INTRODUCTION

In recent years, organisations have paid close attention to talent management practises as they recognise the vital role that talented employees play in

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establishing long-term competitive advantage. Talent management is essential in the setting of educational institutions to make sure the organization has the right people in the proper roles with the skills and knowledge required to accomplish its objectives (Aina & Atan, 2020). Organizations are more interconnected than ever because of improved connectivity and globalization, necessitating the use of international human resource management. With each passing second, the world's economies are becoming more closely intertwined, and the demographic cohort of people is also converging (Saleh & Atan, 2021). This necessitates methods for managing talent globally and uniformly, thus encouraging global as opposed to local talent management tactics. Standardized talent attraction, development, and retention processes are part of the aforementioned best practices (C. Cai, 2022).

The strategies, however, do more than only aid businesses in their battle for talent; they also equip them with the know-how to employ talent management techniques to obtain a competitive advantage and produce financially beneficial results. The "battle for talent" that was hinted at in the sentence before this one caused the field of talent management to be resurrected and given more attention in both business and academics (H. Cai & Du, 2021). As a result, there is a storm of information available in the form of literature and research on talent acquisition, talent development, talent engagement, talent retention, organizational management strategies for personnel, and metrics for talent measurement. The fact that talent management emerged as a study topic and was dispersed across all types of economies is significant since it is consistent with the modern global mentality (Bian, 2021). Organizations are concentrating their efforts in this area because they recognize the crucial need for worldwide recruiting, development, retention, and remuneration in a highly competitive climate like ours. Currently, available research backs talent management as a retention tactic (Burke & Hennessy, 2021).

## CONTEXT OF THE STUDY

As Talent management plays a critical role in improving student results and organizational effectiveness, talent management in educational institutions has attracted more attention recently. It's critical to comprehend the prevalent talent management strategies as educational institutions work to draw in, nurture, and keep outstanding people. To examine the body of literature already written about talent management techniques in educational institutions, this bibliometric analysis intends to highlight major topics, emerging trends, and areas of unmet research need. This study aims to shed light on the changing conversation around talent management in the educational sector by analysing citation networks, publishing patterns, and scholarly output. Additionally, by placing the research's findings in the larger educational framework, it hopes

to influence practice and policy and help create talent management plans that are specifically suited to the demands and difficulties faced by educational institutions.

## NEED OF THE STUDY

In modern academia and organizational management, the study of talent management strategies in educational institutions is crucial. It is becoming more and more important for educational institutions to comprehend and use good talent management practices to stay competitive and improve performance. Still, there is a lack of thorough bibliometric research on talent management strategies in educational environments, despite its critical relevance. This kind of analysis is crucial for several reasons.

First, it makes it possible to conduct a methodical analysis of current research trends, highlighting important issues, significant writers, and research techniques used in this field. Second, it offers insights into how talent management procedures have changed over time in educational institutions, pointing out new trends and areas that need more research. This study is therefore necessary because it can provide a thorough understanding of talent management strategies used in educational settings, which could ultimately improve organizational effectiveness and student results in the field of education (Zhihua, 2021).

## JUSTIFICATION OF THE STUDY

By providing a thorough analysis of talent management methods in educational settings using a bibliometric lens, this work, "Talent Management Practices in Educational Institutions: A Bibliometric Analysis," considerably advances the body of knowledge already known in the field. The study analyses important trends, themes, and gaps in the literature in addition to synthesizing previous research using bibliometric analysis. This method enables scholars and practitioners to get insights into the most popular subjects, significant writers, and developing areas of interest by providing a comprehensive understanding of how talent management techniques have changed over time in educational institutions. In summary, this study is a useful tool for scholars, decision-makers, and educational leaders who want to improve talent management practices in educational settings. In the end, this will help to increase organizational effectiveness and talent development in the education sector. This study contributes significantly to the existing knowledge in several important ways:

- Recognizing Patterns and Trends

- Emphasizing Important Themes and Concepts
- Finding Research Gaps

Overall, bibliometric analysis research on talent management practices in educational institutions advances our knowledge of the field, points out directions for further study, and offers helpful advice for enhancing talent management in learning environments.

## OBJECTIVE OF THE STUDY

Undertaking a bibliometric analysis of talent management strategies in academic institutions has several goals. Its primary goal is to compile and organize the body of knowledge already available on talent management in the context of educational institutions. Finding important themes, patterns, and research gaps is part of this. The second goal of the analysis is to shed light on the ideas, conceptual frameworks, and methodology used to research talent management in educational contexts. It also seeks to provide a thorough summary of the significant academic contributions, well-known writers, and prestigious publications in this discipline. The goal is to expand knowledge, guide future research paths, and help educational institutions improve their talent management methods.

## RESEARCH QUESTIONS

The study has the following research questions:

RQ1: Which countries about talent management strategies are most frequently cited in the literature on educational institutions?

RQ2: Which publications, nations, organizations, and writers have made significant contributions to this field of study?

RQ3: What is the regional distribution of research activities on talent management practices at academic institutions?

The objectives of the study focus on these research questions. This will steer the bibliometric analysis and offer insightful information on talent management strategies in educational institutions, both now and in the future.

## RESEARCH METHODOLOGY

The Scopus database has been utilized to examine published research publications that address morals in higher education institutions. A reliable database with clear publication norms and guidelines is Scopus. Additionally, Scopus

as a database offers extensive worldwide coverage and representation of work. The bibliometric study is aided by the several functionalities of the Scopus database, such as author and journal details, country, university, and funding information.

The procedures used in the data collection process are shown in Table 1. Keyword identification serves as the bibliometric analysis’s foundation. It was essential to enter the right search terms to get relevant results. We first conducted a literature review to find frequently used terms in this domain to better grasp the precise keywords to be used. This made it easier to find synonyms (Zhao et al., 2021).

EXAMINING THE STRATEGY AND THE STATISTICS DERIVED FROM THE DATA

5 Stages Of Bibliographical Search Refinement

The bibliometric method seeks to characterize the body of papers reported on a particular topic, identify the descriptive also analytical changes in that topic, and unearth patterns in previously published articles to identify plausible research gaps and future research works. Scientometric analysis, which compiles a bibliography to present an extensive review of prior research work in a pertinent area and to recommend difficulties for the future, is a comparable systematic evaluation of published literature (A. Cao et al., 2020). It is completed by choosing the proper database, employing the appropriate search keywords, perusing the reported literature, and creating the layout for the literature inquiry (Chang, 2021). Table 1 gives a summary of the five stages of bibliographic search findings.

**Table 1**  
**A Summary of Five-Stage Bibliographic Search Findings**

| Steps of Search Amplification | Query Used For Searches                              | Search Outcomes (No. of Documents) |
|-------------------------------|--|------------------------------------|
| Stage 1                       | Title-Abs-Key-Auth (Talent Management and Education) | 1884                               |

*Continued on next page*

Table 1 continued

|         |  |     |
|---------|--|-----|
| Stage 2 | (Limit-To (Pubyear, 2022 ) Or Limit-To ( Pubyear, 2021 ) Or Limit-To ( Pubyear, 2020 ) Or Limit-To ( Pubyear, 2019 ) Or Limit-To ( Pubyear, 2018 ))  | 875 |
| Stage 3 | (Limit-To (Language, "English"))   | 815 |
| Stage 4 | Margin of Accurate keywords- "Colleges And Universities", "Teaching", "Education", "Talent Management", "Talent Trainings", "E-Learning", "Higher Education", "Employment", "Decision Making" , "Knowledge Management", "Learning Systems" , "High Educations" , "Education Management" , "Talent Development" , "Teaching Methods" , "Teaching Managements" , "Universities" , "Physical Education" , "Higher Education Institutions", "Sustainable Development" , "Teaching Reforms" , "Teaching Modes" , "Career Development" , "Education And Training" , "Teaching Quality" , "Education Systems" , "Professional Education" , "Teaching Systems" , "University Education" , "Education Reforms" , "Teaching Contents" , "Classroom Teaching" , "College Education" , "College Physical Educations" , "Medical Education" , "Learning" , "Training Mode" , "Vocational Education" , "Higher Vocational Colleges" , "Practical Teachings" , "Talent Training" , "Teaching Model" , "Educational Management" , "Teaching Effects" | 113 |

Continued on next page

Table 1 continued

|         |  |    |
|---------|--|----|
| Stage 5 | ( Limit-To ( Exactsrctitle, "Acm International Conference Proceeding Series" ) Or Limit-To ( Exactsrctitle, "Procedural 2021 The second International Conference on Education Knowledge and Information Management (ICEKIM 2021)" Or Limit-To ( Exactsrctitle, "Journal Of Physics Conference Series" ) Or Limit-To ( Exactsrctitle, "Advances In Intelligent Systems And Computing" ) Or Limit-To ( Exactsrctitle "Mobile Information Systems" ) Or Limit-To ( Exactsrctitle "E3s Web Of Conferences" ) Or Limit-To ( Exactsrctitle, "International Journal Of Emerging Technologies In Learning" ) Or Limit-To ( Exactsrctitle, "Lecture Notes of the Institute for Computer Sciences Social Informatics and Telecommunications Engineering, LNICST" ) Or Limit- To ( Exactsrctitle, "Academic Medicine" ) Or Limit-To ( Exactsrctitle, "BMJ Open" ) ) | 55 |
|---------|--|----|

## PROCESS OF DATA COLLECTION

The systematic topic assessment and data collecting for this study both follow a five-stage process. Numerous research studies utilizing bibliographic analysis have established the five-stage genesis of a bibliometric evaluation; the methodology of this investigation is based on this assumption (Y. Cao, 2021).

In the SCOPUS database, which produced a total of 1884 publications on talent management and education, the first step is selecting the right Title-Abstract-Key words-Authors for the bibliographic search (Chen et al., 2021). From 2018 through 2022, the Yearly Publications are restricted to a second stage, producing 875 documents. English was chosen as the language of publication for the third step, and 815 papers were discovered. The SCOPUS database's fourth stage involves choosing the most relevant keywords for bibliographic data. The terms used in bibliographic searches are "Universities", "Teaching", "Education", "Talent Management", "Talent Training", "E-Learning", "Higher Education", "Educational Management", "Teaching Effects" etc. for the result was the production of 113 papers. The fifth stage's refining resulted in the publication of 55 research pieces in the journal, which only accepted "journal articles" and disallowed conference papers, book chapters, reviews, books, editorials, and notes. The fifth stage of refining was only open to the top 10 Source Journals. This constitutes the

sample for the current investigation (Chen et al., 2021).

## RESEARCH METHODOLOGY

The phrase “bibliometric analysis” is associated with the more general term “informetric”, which refers to the various quantitative facets of information analysis. Because it facilitates understanding of the nature and dynamics of a topic of study, the approach is highly popular among scholars. Citation and co-citation analysis are two essential components of bibliometric analysis. The foundation of citation analysis is the respect academics accord a publication when referencing it. Citation analysis employs descriptive indicators to assist researchers in identifying significant contributors to their work, including language, authors, institutions, nations, etc. Understanding the web or network of publications in tracing the Journey of Research 55 is aided by co-citation analysis. Different types of co-citation analysis, including co-occurrence of author keywords, co-authorship analysis by nation, and co-cited authors, aid in the understanding of the various clusters that have formed because of the global research efforts of various scholars.

Obtaining comprehensive insights into research articles in ethics and higher education from 2018 to 2022 was a critical component of this project. The Scopus database shows that ethics and studies on higher education first appeared in 2018. For the current study, the researchers divided the research approach into three important phases. Data was gathered from the Scopus database in the initial phase. Co-citation analysis was carried out in the third step utilizing VOSViewer and Biblioshiny platforms in R Studio®. Emerging clusters that offer a framework for more research in ethics and educational institutions were identified with the use of the co-citation analysis.

### A. Citation Analysis

Table 2 shows the entire amount of research publications that were published in each journal between the years 2018 to 2022.

Year-wise data are mentioned in Table 2, which has been extracted from the Biblioshiny Platform from RStudio®. The detailed information is mentioned in Table 3.



**Table 2**  
**Scientific Production from 2018-2022.**

| Year | Articles |
|------|----------|
| 2018 | 1        |
| 2019 | 3        |
| 2020 | 3        |
| 2021 | 43       |
| 2022 | 5        |

(Bibliometrix results for Source Impact from Biblioshiny)

**Table 3**  
**Yearly Characteristics Of Publications In Top 10 Journals From 2018 To 2022.**

| Journals  | No. | Frequency Code Journal (Yearly) Distribution of Publications |      |      |      |      |
|---|-----|--|------|------|------|------|
|   |     | 2018   | 2019 | 2020 | 2021 | 2022 |
| ACM International Conference Proceeding Series (ACMICPS)  | 19  | 0  | 0    | 0    | 19   | 0    |
| Procedural 2021 The second International Conference on Education Knowledge and Information Management (ICEKIM 2021) | 8   | 0  | 0    | 0    | 8    | 0    |
| Physicists' Journal: Conference Series (JPCS)   | 6   | 0  | 0    | 2    | 4    | 0    |
| Advancements in Computing and Intelligent Systems (AISC)  | 5   | 0  | 0    | 1    | 4    | 0    |
| Mobile Information Systems (MIS)  | 4   | 0  | 0    | 0    | 1    | 3    |
| E3s Web of Conferences (EWC)  | 3   | 0  | 0    | 0    | 3    | 0    |
| Global Journal of Emerging Technologies in Education (IJETL)  | 3   | 0  | 1    | 0    | 2    | 0    |
| Computer Sciences Social Informatics and Telecommunications Engineering Lecture Notes (LNICST)                      | 3   | 1  | 1    | 0    | 0    | 1    |
| Academic Medicine (AM)  | 2   | 0  | 1    | 0    | 1    | 0    |

*Continued on next page*

*Table 3 continued*

|                 |           |          |          |          |           |          |
|-----------------|-----------|----------|----------|----------|-----------|----------|
| BMJ Open (BMJO) | 2         | 0        | 0        | 0        | 1         | 1        |
| -               | <b>55</b> | <b>1</b> | <b>3</b> | <b>3</b> | <b>43</b> | <b>5</b> |

**No.: No of Articles**

Table 4 lists the top 30 relevant affiliations with parameter 5 together with the quantity of documents published. Between 2018 and 2022, numerous authors from various institutions published their work. The top 30 affiliations and articles are listed below. In various years, Dalian Port Hospital has the most research publications (seven), followed by Hunan International Economics University (four), and Amsterdam Public Health (four).

**Table 4**

**Production of the Top 30 Affiliations Over Time (Affiliations with Parameter 5).**

| <b>Affiliation</b>                         | <b>Year</b> | <b>Articles</b> |
|--|-------------|-----------------|
| Dalian Port Hospital                       | 2018        | 0               |
| Dalian Port Hospital                       | 2019        | 0               |
| Dalian Port Hospital                       | 2020        | 0               |
| Dalian Port Hospital                       | 2021        | 7               |
| Dalian Port Hospital                       | 2022        | 7               |
| Hunan International Economics University   | 2018        | 0               |
| Hunan International Economics University   | 2019        | 0               |
| Hunan International Economics University   | 2020        | 0               |
| Hunan International Economics University   | 2021        | 4               |
| Hunan International Economics University   | 2022        | 4               |
| Amsterdam Public Health                    | 2018        | 0               |
| Amsterdam Public Health                    | 2019        | 0               |
| Amsterdam Public Health                    | 2020        | 0               |
| Amsterdam Public Health                    | 2021        | 0               |
| Amsterdam Public Health                    | 2022        | 4               |
| Nationalities of Inner Mongolia University | 2018        | 3               |
| Nationalities of Inner Mongolia University | 2019        | 3               |
| Nationalities of Inner Mongolia University | 2020        | 3               |
| Nationalities of Inner Mongolia University | 2021        | 3               |
| Nationalities of Inner Mongolia University | 2022        | 3               |
| College of Information Engineering         | 2018        | 0               |
| College of Information Engineering         | 2019        | 3               |
| College of Information Engineering         | 2020        | 3               |

*Continued on next page*

Table 4 continued

|                                    |      |   |
|------------------------------------|------|---|
| College of Information Engineering | 2021 | 3 |
| College of Information Engineering | 2022 | 3 |
| Hubei Business College             | 2018 | 0 |
| Hubei Business College             | 2019 | 0 |
| Hubei Business College             | 2020 | 0 |
| Hubei Business College             | 2021 | 3 |
| Hubei Business College             | 2022 | 3 |

(Bibliometrix results for Source Impact from Biblioshiny)

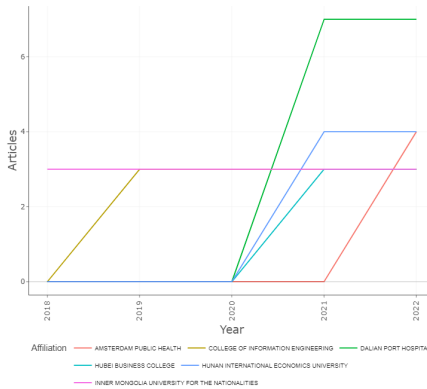


Figure 1. Production of the Top 30 Affiliations Over Time (Affiliations with Parameter 5).

Figure 1 displays the top 30 associations with parameter 5 throughout various periods. The high affiliation, represented by Dalian Port Hospital (Green Line), is ranked 7, followed by Hunan International Economics University (Blue Line), which has an affiliation of 4, and Amsterdam Public Health (Orange Line), which has an affiliation of 4 (Chen et al., 2021).

Table 5

The Production of Each Country Over Time.

| Country | Year | Articles |
|---------|------|----------|
| China   | 2018 | 3        |
| China   | 2019 | 10       |
| China   | 2020 | 16       |

Continued on next page

*Table 5 continued*

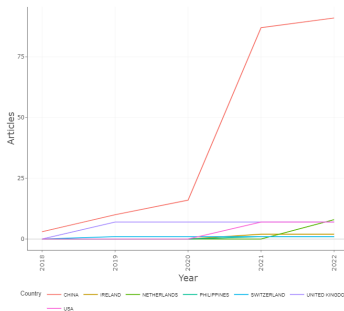
|             |      |    |
|-------------|------|----|
| China       | 2021 | 87 |
| China       | 2022 | 91 |
| UK          | 2018 | 0  |
| UK          | 2019 | 7  |
| UK          | 2020 | 7  |
| UK          | 2021 | 7  |
| UK          | 2022 | 7  |
| USA         | 2018 | 0  |
| USA         | 2019 | 0  |
| USA         | 2020 | 0  |
| USA         | 2021 | 7  |
| USA         | 2022 | 7  |
| Netherland  | 2018 | 0  |
| Netherland  | 2019 | 0  |
| Netherland  | 2020 | 0  |
| Netherland  | 2021 | 0  |
| Netherland  | 2022 | 8  |
| Switzerland | 2018 | 0  |
| Switzerland | 2019 | 1  |
| Switzerland | 2020 | 1  |
| Switzerland | 2021 | 1  |
| Switzerland | 2022 | 1  |
| Ireland     | 2018 | 0  |
| Ireland     | 2019 | 0  |
| Ireland     | 2020 | 0  |
| Ireland     | 2021 | 2  |
| Ireland     | 2022 | 2  |
| Philippine  | 2018 | 0  |
| Philippine  | 2019 | 0  |
| Philippine  | 2020 | 0  |
| Philippine  | 2021 | 1  |
| Philippine  | 2022 | 1  |

(Bibliometrix results for Source Impact from Biblioshiny)

The productivity of the nations is shown in Table 5 over time. The top 7 nations and their projects from 2018 to 2022 are listed below (Deng, 2021). According to recent works, starting from 2022, China has the most articles overall. In the domain of Talent Management Practices in Educational Institutions, China has published 91 research articles, 87 more in 2021, and 16 more in 2020. Additionally, in recent years, a sizable number of papers have been published in nations including, the United Kingdom, the United States, the

Netherlands, Switzerland, Ireland and the Philippines (Fan et al., 2021).

Figure 2 shows a timeline of the nation’s production from 2018 to 2022. China is shown as having the most research papers published overall from 2018 to 2022 (Orange colour line), followed by the United Kingdom (Purple colour), the United States (pink colour), the Netherlands (Green colour), Switzerland (Sky colour), Ireland (Yellow colour), and the Philippines (Sea green colour).



**Figure 2. The Production Of Each Country Over Time (Parameter: 10 Countries).**

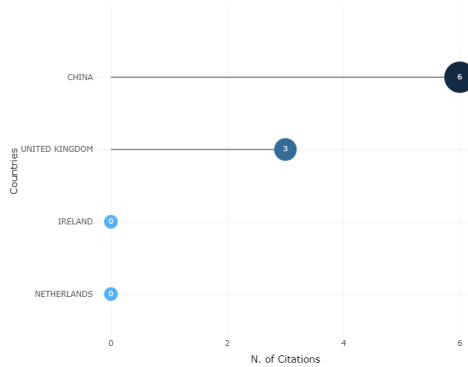
**Table 6**

**Most Cited Countries (Parameter=5 Countries).**

| Country        | TC | Average Article Citations |
|----------------|----|---------------------------|
| China          | 6  | 0.25                      |
| United Kingdom | 3  | 3.00                      |
| Ireland        | 0  | 0.00                      |
| Netherland     | 0  | 0.00                      |

(Bibliometrix results for Source Impact from Biblioshiny)

When examining the entire body of work on the subject of Talent Management Practices in Educational Institutions, it is clear that various nations have produced several publications with respectable numbers of citations and average article citations over time (Gao, 2021). The results of the most frequently cited nations from 2018 to 2022 are displayed in Table 6. China has the highest total citation score (six) and the average article citation (25), while the United Kingdom comes in second with a TC=3 and an AAC =3.00. The results are shown graphically in Figure No.3.



**Figure 3. Most Cited Countries (Parameter=5 Countries).**

The data in Table 7 shows the average yearly citations in the field of “Talent Management Practices in Educational Institutions” from 2018 to 2022. It displays N, which stands for the total number of papers produced throughout various years, the mean total citations per article, the mean total citations per year, and the citation years. The result shows that in the year 2021 maximum number of research publications have been done i.e., N=43, followed by N=5 in the year 2022. However, the mean total citations per article in the year 2019 displayed positive outcomes, which are indicative of high-quality content (Han et al., 2021).

**Table 7**

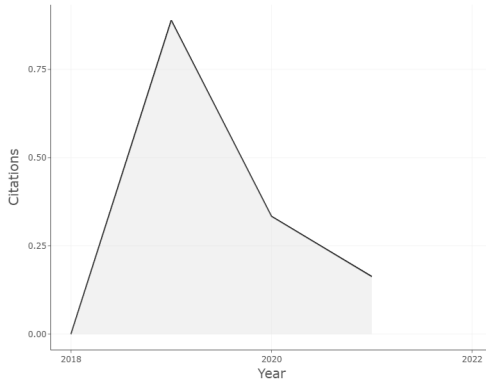
**Average Annual Citations.**

| Year | N  | Mean TC per Article | Mean TC per Year | Citable Years |
|------|----|---------------------|------------------|---------------|
| 2018 | 1  | 0.00                | 0.00             | 4             |
| 2019 | 3  | 2.67                | 0.89             | 3             |
| 2020 | 3  | 0.67                | 0.33             | 2             |
| 2021 | 43 | 0.16                | 0.16             | 1             |
| 2022 | 5  | 0.00                | 0.00             | 0             |

(Bibliometrix results for Source Impact from Biblioshiny)

Because the mean number of citations was highest between 2018 and 2020, so in Figure 4, the graph during this period shows a quick development (Han et al., 2021). It suggests the articles’ quality was very high during that time.

The top authors from 2018 to 2022 are listed in Table 8, along with the



**Figure 4. Average Annual Citations.**

**Table 8**

**Top 10 Most Relevant Authors.**

| <b>Authors</b> | <b>Articles</b> | <b>Fractionalized</b> |
|----------------|-----------------|-----------------------|
| Wang Y         | 2               | 1.33                  |
| Zhang Q        | 2               | 1.17                  |
| Zhu C          | 2               | 1.50                  |
| Adeyemi A      | 1               | 0.13                  |
| Aizer J        | 1               | 0.14                  |
| Bai W          | 1               | 0.17                  |
| Bass Ar        | 1               | 0.14                  |
| Berman Jr      | 1               | 0.14                  |
| Bian Y         | 1               | 1.00                  |
| Burke E        | 1               | 0.50                  |

(Bibliometrix results for Source Impact from Biblioshiny)

number of articles and total frictions they received each year. The highest frictional value score was achieved by Zhu, which was 1.50, followed by Zhang at 1.17 and Wang at 1.33.

The h-index, g-index, and m-index calculated using Biblioshiny software results are shown in Table 9. The quantity of research papers published in a journal that has been cited several times is a bibliometric measure used to

**Table 9****Most Successful Journals Ordered By The Number Of Citations.**

| Elements   | h_index | g_index | m_index | TC | NP | PY_start |
|--|---------|---------|---------|----|----|----------|
| Academic Medicine  | 1       | 1       | 0.250   | 3  | 2  | 2019     |
| ACM International Conference Proceeding Series   | 1       | 1       | 0.500   | 2  | 19 | 2021     |
| Advances in Intelligent Systems and Computing  | 1       | 1       | 0.333   | 1  | 5  | 2020     |
| E3s Web of Conferences   | 1       | 1       | 0.500   | 2  | 3  | 2021     |
| International Journal of Emerging Technologies in Learning   | 1       | 2       | 0.250   | 5  | 3  | 2019     |
| Journal of Physics: Conference Series  | 1       | 1       | 0.333   | 3  | 6  | 2020     |
| 2nd International Conference on Education, Knowledge, and Information Management Proceedings, 2021 (ICEKIM 2021) | 1       | 1       | 0.500   | 1  | 8  | 2021     |

(Bibliometrix results for Source Impact from Biblioshiny)

assess the productivity and citation impact of that journal. The h-index is the same for all publications, but the g-index varies; for instance, the Global Journal of Emerging Technologies in Education has a g-index of 2, which is higher than that of other papers (Huang, 2021). The m-index, a variant of the h-index, simultaneously presents different findings for many journals. ICEKIM 2021, E3s Conference Proceedings Web-2021 Second International Education, Knowledge, and Information Management Conference, and ACM International Conference Proceeding Series are the top publications by m-index. The International Journal of Emerging Technologies in Learning has the greatest citation score of (5), while the ACM International Conference Proceeding Series has the largest number of publications (19) in the year 2021.

## RESULTS OF BIBLIOMETRIC ANALYSIS

[Key Word Commonality (Minimum Key Word Occurrence=4, Results=39)]

To assess the study methodology for the topic of talent management strategies in educational institutions, Using the VOSviewer software, the relation-

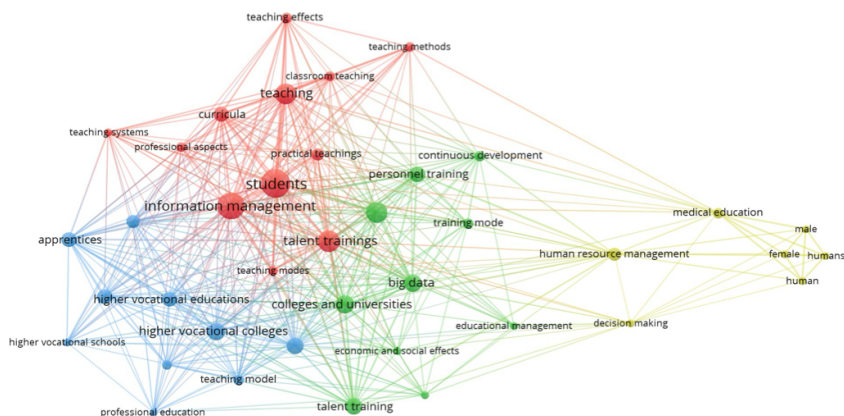


ships between the most popular keywords that appeared at least five times are visually analysed (Qi, 2021). Figure 5 shows a circle for each term, with the size and size of the circle indicating the number of links a given term has. The keyword’s significance will be more intricate if the circle is broader (Junhong & Zehua, 2021). The distance between two circles indicates the degree of similarity between the two terms, and the colour of the circles indicates the cluster to which they belong (Zheng, 2019).

By visually representing the development of research on talent management practices in educational institutions over time, the thematic evolution tool, which was used in this study, makes it possible to identify groups of current research trends and suggest potential directions for further investigation (Gouda & Tiwari, 2022).

## B. Co-Citation Analysis

### Visualization Of The Keyword Co-Occurrence Network



**Figure 5. Visualization of the Keyword Co-Occurrence Network.**

- Cluster-1 (Red): Exhibits talent management procedures combined with information management and training techniques in educational institutions.
- Cluster-2 (Blue): Illustrates modes of instruction, such as vocational education, where the management of talent can be practised more.
- Cluster-3 (Green): Diverse forms of training are the key topic to enhance talent.
- Cluster-4 (Yellow): Related to decision-making with the aid of human

resource management.

Each term is represented by a circle in Figure 5, with the size and diameter of the circle indicating how many linkages the term has. If the circle is bigger, the keyword's implications are more complex (Khawar et al., 2022). The colour of the circles denotes the cluster to which the phrases belong, and the distance between the two circles indicates how closely the two terms are related. Two terms are connected by lines; The line connecting two terms becomes wider the more frequently they appear together. The largest correlation between intellectual capital and other keywords is seen in Figure 5, highlighting its significance in the current study (Kimball et al., 2019). Other words with a reasonable keyword density include decision-making, higher education, and talent development. Figure 5 displays the "co-occurrence map" of 55 research publications and Table 10 displays four significant clusters of various phrases.

Cluster 1 (Red): Exhibits how talent management procedures can be combined with information management and training techniques in educational institutions. Cluster 2 (Blue) illustrates numerous modes of instruction, such as vocational education, where the management of talent can be practiced more, due to their shared ideals of the teaching modes and their impacts. Diverse forms of training are the key topic to enhance talent in Cluster 3 (Green). Cluster 4 (Yellow) is related to decision-making with the aid of human resource management.

**Table 10**

**An Overview of the Keyword Co-Occurrence Study.**

|                            | <b>Occurrences</b> | <b>Strength of All Links</b> |
|----------------------------|--------------------|------------------------------|
| Students                   | 24                 | 127                          |
| Information Management     | 22                 | 122                          |
| Talent Trainings           | 16                 | 79                           |
| Education Computing        | 15                 | 71                           |
| Teaching                   | 15                 | 87                           |
| Colleges And Universities  | 13                 | 63                           |
| Big Data                   | 12                 | 66                           |
| Higher Vocational Colleges | 12                 | 60                           |
| Engineering Education      | 11                 | 65                           |
| Talent Training            | 11                 | 49                           |
| Personnel Training         | 10                 | 51                           |
| Apprentices                | 9                  | 59                           |
| Curricula                  | 9                  | 59                           |

*Continued on next page*

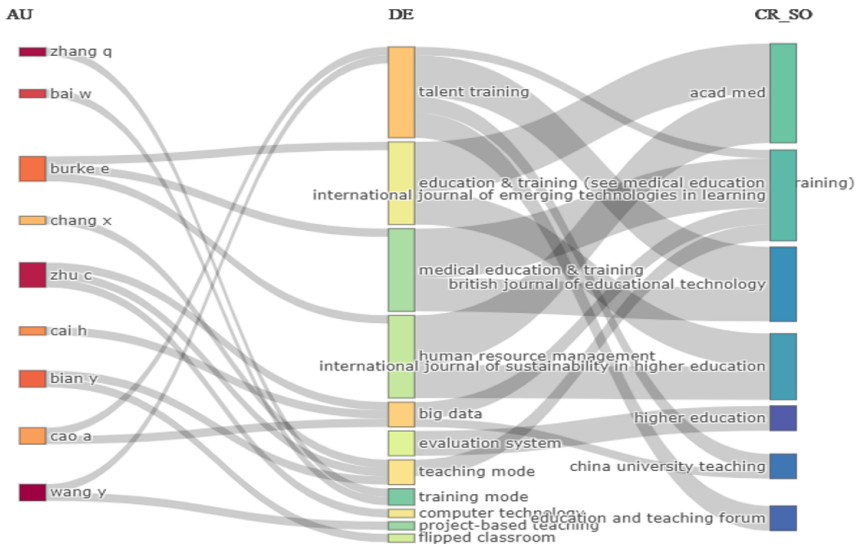
*Table 10 continued*

|                              |   |    |
|------------------------------|---|----|
| Higher Vocational Educations | 9 | 56 |
| Vocational Education         | 9 | 57 |
| E-Learning                   | 8 | 51 |
| Human Resource Management    | 8 | 35 |
| Practical Teachings          | 7 | 33 |
| Continuous Development       | 6 | 25 |
| Medical Education            | 6 | 30 |
| Teaching Effects             | 6 | 34 |
| Teaching Model               | 6 | 33 |
| Training Mode                | 6 | 22 |
| Classroom Teaching           | 5 | 29 |
| Professional Aspects         | 5 | 29 |
| Teaching Management          | 5 | 35 |
| Teaching Methods             | 5 | 25 |
| Teaching Modes               | 5 | 30 |
| Decision Making              | 4 | 17 |
| Economic And Social Effects  | 4 | 22 |
| Educational Management       | 4 | 17 |
| Female                       | 4 | 19 |
| High Educations              | 4 | 18 |
| Higher Vocational Schools    | 4 | 27 |
| Human                        | 4 | 19 |
| Humans                       | 4 | 19 |
| Male                         | 4 | 19 |
| Professional Education       | 4 | 23 |
| Teaching Systems             | 4 | 26 |

(Total link strength is reported based on all terms' co-occurrences in VOSViewer) (Bibliometrix results for Source Impact from Biblioshiny)

Biblioshiny was used to categorize important authors and the names of journals connected with these most popular keywords using a three-field plot analysis. Figure 6 depicts a Sankey plot (three-field plot) that summarizes the relationships between the top 15 authors, the top 15 research keywords, and the top 10 journals with the most citations. The terms "educational institutions" and "talent management methods" are used in the study that all ten of the top writers undertook and published (Liao, 2021). Burke and Hennessy (2021) have written three studies on diverse topics related to talent and educational training, which have been cited in publications by ACAD Med and the Global Journal of Emerging Technologies in Education, among other sources (Li-Juan et al., 2021).

To illustrate how the conceptual framework of research on "talent man-



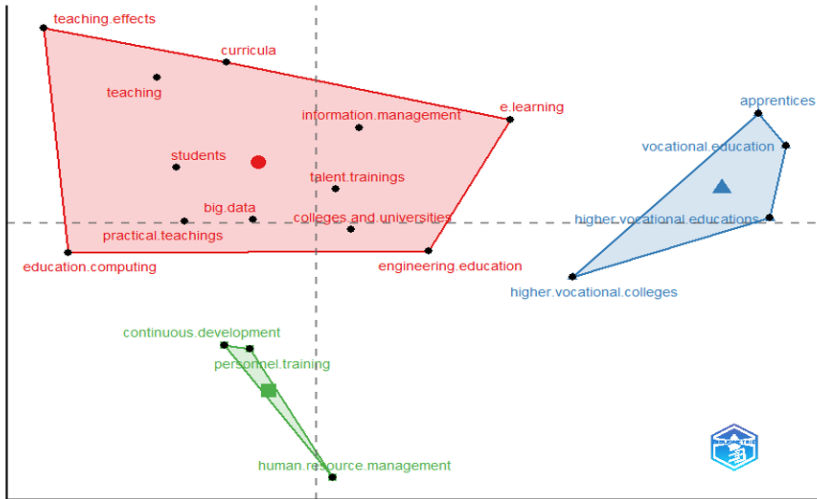
**Figure 6. Analysis of a3-field Plot with 15 Number of Authors, 25 Keywords and 20 Source Titles.**

agement methods in educational institutions from 2018 to 2020” evolved, the thematic evolution (Figure 7) was created using Biblioshiny’s “Keyword Plus” feature. Multiple Correspondence Analysis (MCA) is used in Biblioshiny to perform a factorial analysis in contemplation of better understanding the contextual form of the riddle extant literature (Lili, 2021). This study resulted in the classification of three separate clusters with a number of terms being 20, as illustrated in Figure 7. This analysis separates the study’s sample into various clusters as well, and the outcomes of the co-occurrence analysis of the term were then combined (Figure 5). The software “Bibliographic Coupling of Documents” in VOSviewer was used to further evaluate the content of each set of abstracts of the articles to interpret the relationships between the documents depending on citation and work similarity (Lin, 2022). Once the research papers in the field of “Talent management practices in educational institutions” have been cross-referenced using the “Bibliographic Coupling Approach” and the “Factorial Analysis Approach” (Biblioshiny).

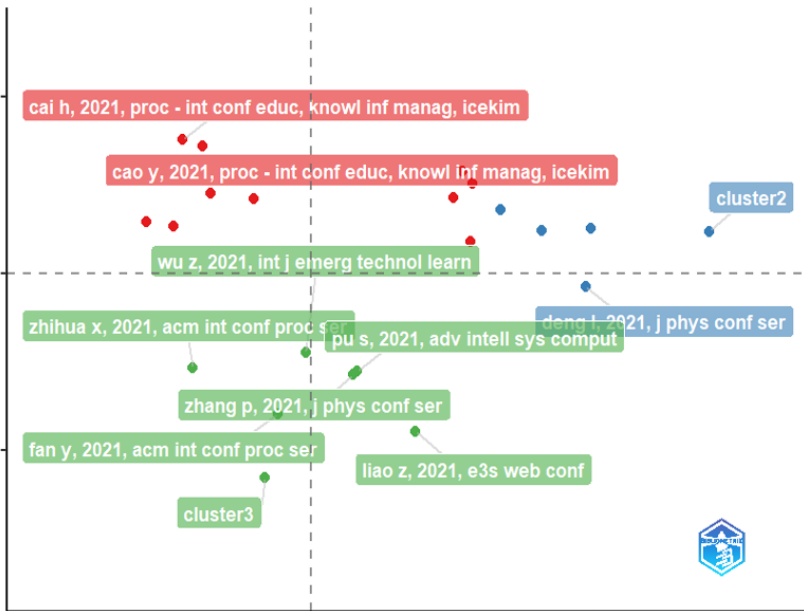
\*Method Parameters:      \*Graphical Parameters:

No of terms= 20, No of clusters= 3    Label size= 7, No of documents=10

As mentioned in the preceding section, the tool of Biblioshiny i.e. factorial analysis is used in conjunction with the self-generated function to find



**Figure 7. Factorial Analysis for the Purpose of Conceptual Cluster Identification.**



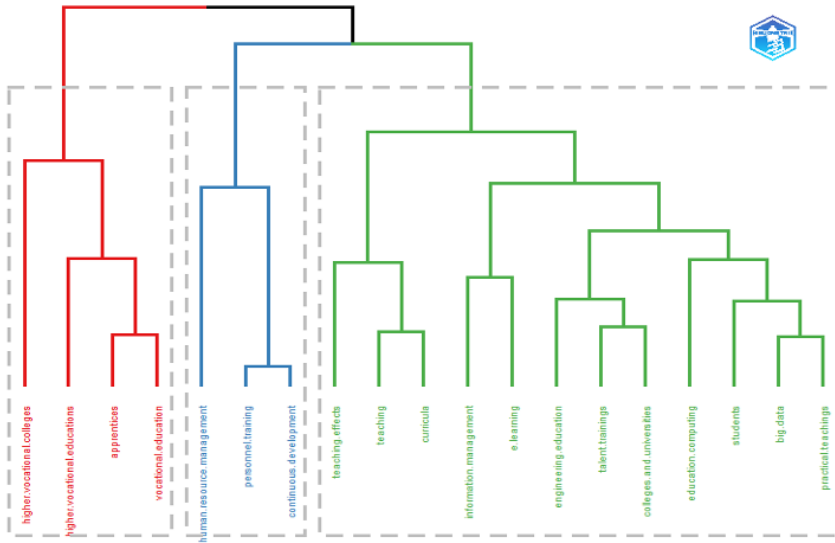
**Figure 8. Factorial Chart of the Documents with the Greatest Contributions.**

various groups and their theoretical architecture. The present study finds 3 major macro clumps in the suggested research area based on the examination of bibliographic data gathered using both methodologies.

The factorial maps of the documents with the biggest contributions are displayed in Figure 8, for the present time frame (2018-2022). The most cited articles are divided into 3 groups. The article from the Proceedings of the 2nd International Conference on Education Knowledge and Information Management, or Cluster-1, is among the outcomes that are highlighted in red. Cluster-2 Journal of Physics: Conference is one of the findings highlighted in blue. Cluster-3 shows the articles from E3 Web of Conferences, The International Journal of Emerging Technologies in Learning, advancements in intelligent systems and computing, and other publications are among those showing results in green (Liu et al., 2021). The parameters set for the results are Method Parameters: No of terms= 20, No of clusters= 3 and Graphical Parameters: Label size=7, No of documents=10.

The present study determines 3 major macro clumps in the suggested subject of research based on the observation of bibliographic findings acquired with both tools (Zhu & Li, 2021). These groups include (1) a variety of educational characteristics, such as apprenticeship and vocational training, (2) people development and (3) talent development and information management. The corresponding dendrogram (as displayed in Figure-9) created using the findings in The factor analysis method's Biblioshiny also showed that some of the characteristics these found clusters had in common overlapped.

To increase accessibility owing to small fonts' visual limitations and the construction of complicated tree structures when all keywords are used, as shown in Figure 7, the 20 most frequent phrases were used to create and optimize the cluster dendrogram illustrated in Figure 9 (Peng, 2021). Apprentice and vocational education are terms included in Cluster-1 of Figure-9 that relate to educational establishments. Nevertheless, several of the phrases grouped under cluster 2 (Figure 9) are connected to talent management techniques. The remaining keywords stand in for cluster 3 (Figure 9) which is concerned with using talent management techniques for ongoing improvement (Pu, 2021). The many dominant categories identified by the analysis are confirmed by the topic dendrogram in Figure 9 (Zhu & Li, 2021).



**Figure 9. Multiple Keyword Correspondence Analysis Using A Cluster Dendrogram**

**STUDY TOPICS FOR EDUCATIONAL INSTITUTIONS IN TALENT MANAGEMENT**

**Cluster 1: Effects of employee commitment and talent management on talent retention -Iterative evaluation.**

Talent management is one of the finest strategies to ensure that employees remain dedicated to and engaged in their careers. These workers are more likely to stick with the company in the long run because they feel committed to or invested in their work (Pu, 2021). While the authors have been researching Organizations have focused their people management efforts on retention due to the expenses of recruitment, selection, and the opportunity cost associated with attrition (Qi, 2021). According to the study’s findings, combining employee engagement initiatives with talent management tactics will improve talent retention (L. Wang et al., 2018).

**Cluster 2: Is turnover important in talent management in higher education?**

Age, gender, and contract type all showed (significant) differences in the amount of worker turnover, with research staff turnover being especially high

(impacted by the usage of evaluation procedures). Younger employees were disproportionately affected since they are more inclined than older employees to look for work elsewhere, though they might stay if there are advancement and career prospects [Gerhardt and Karsan \(2022\)](#). A life-span viewpoint is supported by the advancement in intelligence that makes it possible to identify and preserve the best talent and how rising difficulties are explained like gender pay disparities are proposed as practical methods ([Gandy et al., 2018](#)).

### **Cluster 3: Moderating the Relationship between Highly Skilled Recruitment and HR Policies through Talent Management.**

Employing highly competent personnel and managing talent help organizations increase efficiency in a highly competitive business climate. The provision of understandable and practical HR policies has long been a corporate objective ([Y. Wang et al., 2019](#)). Today's successful company must, however, keep exceptional employees on staff, manage their professional growth, and offer a structured workplace with fair and transparent HR practices ([Gallardo-Gallardo, 2019](#)).

### **Cluster 4: The impact of talent management strategies on employee retention and turnover.**

The human resources department of a firm is in charge of identifying and retaining the talent required for productivity and growth in a constantly shifting business environment ([Wu, 2022](#)). One of the industries that are expanding is the IT sector, which struggles with a high rate of staff turnover. A descriptive study was conducted to ascertain how capacity management techniques affect employee retention to analyse how talent management practices affect employee retention. According to research, workers prefer to remain with a company that gives them the chance to advance professionally. Compensation packages have also proved to be quite effective at attracting and keeping workers ([P. Zhang, 2021](#)). Further research on additional workforce facets, the relationship between work-life balance, employee engagement and staff retention can be done, and this research can be generalized to other industries ([Pandita et al., 2018](#)).



**Cluster 5: Organizational culture's balancing effect on talent management outcomes on sustained organizational success and employee job satisfaction.**

As businesses operate in an inevitable market, there are constantly new and unexpected challenges that make managing tasks more challenging and the accomplishment of corporate goals and objectives more crucial (Collings et al., 2022). It is also important to highlight that, when it comes to human resource and organizational management, very few organizations place a strong emphasis on talent management and their leadership structure. The results show that while career management and learning and development were found to have significant positive effects, Long-term organizational success was unaffected by personnel acquisition or retention. According to the report, management should prioritize coaching and training initiatives in addition to job rotation to improve learning and development and employee career management (Maamari, 2016). Job satisfaction is a key component of employee retention since talented employees either leave their jobs or are content with their positions (J. Yang et al., 2019). To comprehend the relationship between successful personnel management practices and employee work satisfaction, the research study employs the best model P. Yang and Xue (2020). The study thus exhorts firms to utilize viable talent management techniques within their businesses to enhance both their merciless performance and employee satisfaction.

**FRAMEWORK ILLUSTRATING MULTIPLE TALENT MANAGEMENT PRACTICE DEPLOYMENT STAGES**

Following the identification of the various research themes mentioned in the preceding subsection, the investigator also presented the findings of the current study in the context of Figure 10 to show a comprehensive view of the trends of deployment of talent management practices associated with the developments in educational institutions (Hughes & Christensen, 2021).

For companies without an integrated framework in place for constant input, the first stage is the visibility of the significance of talent management practices, which is the foundation of a business intelligence journey. Rather than being isolated and unable to communicate with one another. This stage ensures safe connectivity for easy communication, demonstrating the compatibility of various suppliers with the various organizational unit systems employing communication protocols and all other components of talent management practices (Yan, 2021).

Therefore, the second phase begins with an analysis of the key factors that influence how educational institutions manage their talent. These factors

are occurrences that necessitate identification, optimization, and prevention including planning, attracting, onboarding, retaining and making the transition of talents. The third phase will then involve running simulations to address any future issues (or queries) about how educational institutions are managing talent in various realistic settings. Finally, this can be accomplished through a variety of functional classifications, such as employee commitment including fair recruitment, selection, etc., followed by employee turnover based on their gender, age, intelligence, etc., and various human resource policies to improve work efficiency and professional development, etc. Additionally, employee retention and a positive work environment are the benchmarks to effectively manage talents in educational institutions (Kumar, 2021).

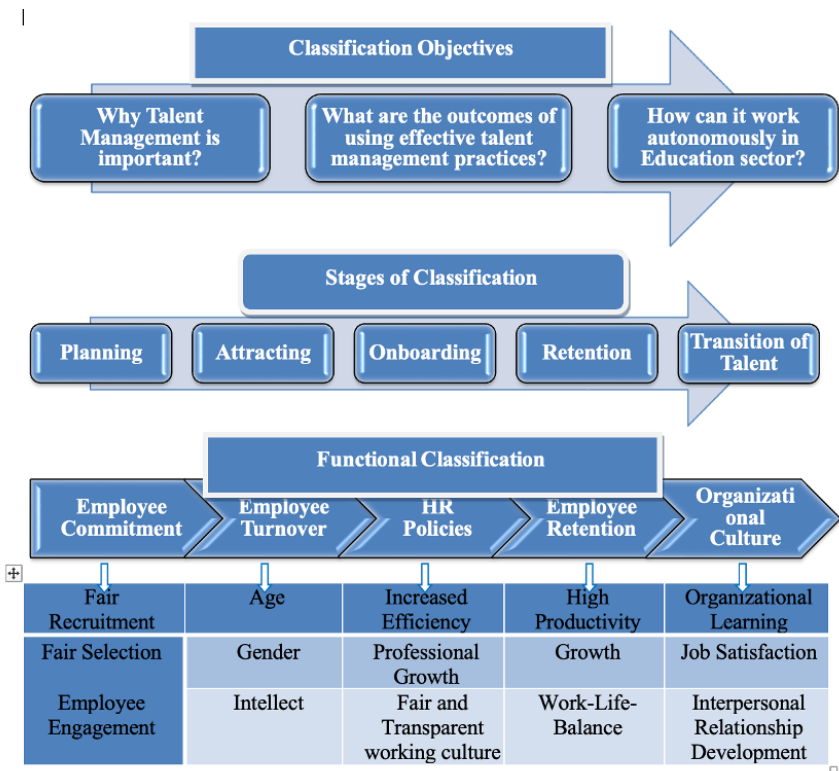


Figure 10. Framework Illustrating Multiple Talent Management Practice Deployment Stages.

## DISCUSSION AND CONCLUSIONS

In educational institutions, achieving targeted goals and objectives depends critically on professional talent management. Employee engagement, managerial competencies, organizational culture, organizational plan, employer brand, and human resource management strategy are the main determinants of talent management practices in educational institutions. Given this context, the paper has concentrated on examining the research that has already been conducted in the field of talent management in educational institutions between 2018 and 2023. The evolution and advancement of research across time have been charted in this study.

Three research questions were attempted to be addressed in the research article. In the first research inquiry, the most referred publication in this field sought to be understood. The study of citations revealed that "China" was the nation most frequently cited. China has the greatest number of articles overall, beginning in 2022, according to recent works. China has published 91 research publications in the field of Talent Management Practices in Educational Institutions, with an additional 87 in 2021 and 16 in 2020.

The second research topic looked at the journals, nations, organizations, and writers who have made significant contributions to this field of study. According to the results of the citation analysis, the "ACM International Conference Proceeding Series," which published 19 papers in 2021, was the most important publication in this field of study. With seven related publications that contributed to this domain, the Dalian Port Hospital was the most influential institution at the time. Looking at the contributions by nation reveals that China tops the list, followed by the UK. It was particularly intriguing to see how developing nations have contributed to this field of study, demonstrating the significance of talent management strategies at academic institutions in poor nations.

The regional distribution of academic institution research activities on talent management methods was the subject of the third research question. We have carried out a co-citation analysis to make sense of this. The co-citation analysis results demonstrated that the conceptual frameworks like analysis of a 3-field plot, factorial analysis, multiple keyword correspondence analysis, Visualization of the keyword co-occurrence network etc. are done for most cited keywords analysis, where students (127), information management (122), and talent training (79), have a high citation count. This suggests that these terms are important and frequently serve as a foundation for other researchers conducting research in this field (Q. Zhang, 2022).

## FUTURE RESEARCH DIRECTIONS

The places and industries that will be looked at in future research may be expanded . Even though talent management is a relatively recent research topic that has attracted the interest of both academics and practitioners, there is still a lot of need for additional study. Numerous sectors that haven't been investigated yet could be the subject of the investigation [Gallardo-Gallardo and Thunnissen \(2022\)](#). To examine the differences in how putting talent management practices into practice affects others and researchers could compare the public and private sectors ([Berman et al., 2021](#)). The researchers advise doing an additional study in the future to evaluate mentorship and other talent management tactics. There are also some recommendations made to concentrate on the relationship between gender and the methods used in human resource management. In addition, it would be better to include all additional factors affecting staff retention in future research ([P. Zhang, 2021](#)).

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