

A Research on the Hotspots of Kindergarten Regional Activities Based on an Analysis of Common Keywords

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Abstract: *In order to know about the hot spots and trends of kindergarten regional activities in the past 20 years, and provide a better direction for the study of kindergarten regional activities, using Bicom and SPSS software, this essay makes Keyword co-word analysis, cluster analysis and multi-dimensional scale analysis on 1869 articles which were queried from China Knowledge Network from 2000-2020. The results show that the research hot spots of regional activities in China in the past 20 years mainly focus on the problems and countermeasures of regional activities in kindergartens; the material placement, environmental creation and guiding strategies in regional activities; the organization of regional activities and the development of children's ability.*

Keywords: *common keywords analysis; kindergarten regional activities; hot research*

1. Introduction

Kindergarten regional activity is an important and unique form of activity organization for kindergartens. Their full and reasonable development is essential to the overall development of children and the cultivation of various interests, and it also plays an irreplaceable role in improving the overall quality of children. ^[1] Nowadays, as kindergartens pay more and more attention to the importance of regional activities, kindergartens will set up regional space under reasonable conditions. Therefore, the effective development of regional activities has increasingly become the research objects of teachers.. Moreover, with the renewal of the concept, the government and education departments have also issued some policy support. At the same time, kindergartens, teachers, and parents have promoted the rapid development of kindergarten regional activities in recent years. Therefore, in order to have a clearer understanding of the domestic research in the field of regional activities in kindergartens in the past two decades, to further understand the research hot spots of regional activities in kindergartens, to further explore the development direction of regional activities research, and to clarify the development momentum, it is necessary to make a keyword co-word analysis on the research literature of regional activities in recent 20 years.

2. Data sources and research methods

2.1 Literature statistics

Entered the China Academic Journals Online Publishing General Database, the period of the periodical was limited to 2000-2020, and the content search conditions were keywords "Kindergarten Regional Activities", in these search control conditions, A total of 2858 documents were retrieved. In the search control conditions, the year of master and doctoral papers was limited to 2000-2020, and a total of 128 documents were retrieved. Among the 2986 articles, 1117 non-research articles such as duplicate publications, conference notices, person introductions, no authors or keywords, etc. were removed, and a total of 1869 effective papers were obtained. Through detailed data analysis of each year, we can clearly see that before 2010, there were few documents on regional activities. Since 2011, the number of research documents on regional activities has increased significantly, reaching a maximum of 597 articles in 2020. Therefore, after 2010, researchers have paid more attention to kindergarten regional activities, so their research has increased.

2.2 Research tools

Bicom co-word analysis software and SPSS22.0 are used as the main research tools.

2.3 Research progress

First, 40 keywords with word frequency greater than 6 are extracted as the main keywords. Second, establish a common word frequency matrix for high-frequency keywords. Third, import the co-word matrix into SPSS22.0, and use sample clustering to obtain a cluster tree diagram of 40 keywords. Fourth, use SPSS22.0 to analyze the multi-dimensional scale of the co-word matrix and to draw a map of keyword knowledge. Finally, combine clustering and knowledge map content to explain and analyze.

3. Research results and analysis

3.1 High-frequency keywords and analysis

For the statistical analysis of the word frequency of high-frequency keywords, we can more intuitively understand the concentrated hotspots and trends in the research field. Through the keyword statistics of 1869 articles, 1054 keywords are obtained. By analyzing the top 40 keywords, it can be concluded that the total frequency of the top 40 high-frequency keywords in the regional activity research is 1011 times, accounting for 42.748% of the total frequency of keywords. For the "high-frequency" operation of keywords, the keywords whose cumulative frequency reaches about 40% of the total frequency can be intercepted as high-frequency keywords.^[2] Among them, the frequency of the top 13 keywords are all greater than 20, and the top 13 hotspots are: regional activities (344), children (61), operating materials (52), material placement (44), game activities (38), activity area (34), preschool teachers (25), teacher-child interaction (22), educational goals (22), guidance strategies (22), educational guidelines (21) teacher guidance (21), independent learning (20). This result preliminarily shows that the activities in the kindergarten area mostly focus on material placement in the activity area, children's game activities, teacher-child interaction, teacher guidance, and children's autonomous learning. However, this is only a simple statistics of high-frequency keywords, and it is difficult to find the substantial connections between these high-frequency keywords. Therefore, it is necessary to deeply explore the connections between these high-frequency keywords through these keyword co-occurrence technologies.

3.2 Ochiai coefficient similarity matrix of high-frequency keywords (partial)

In order to obtain a data structure that meets the requirements of scale analysis, the above 40 high-frequency keywords are analyzed by BICOMB co-word analysis software to generate word matrix. Import the word-text matrix into SPSS20.0, and select the Ochiai coefficient to transform it into a 40×40 co-word similarity matrix. Use dissimilarity matrix=1-similarity matrix to obtain dissimilarity matrix. The closer the value in the dissimilarity matrix is to 1, the longer the distance between keywords is and the smaller the similarity is; the closer the value is to 0, the closer the distance between keywords is., the greater the similarity is. The order of each keyword based on the distance from the regional activities from near to far is: material placement (0.707), children (0.765), operating materials (0.768), game activities (0.805), kindergarten teacher (0.817), teacher-child interaction (0.828), Guidance strategy (0.839), educational goal (0.862), activity area (0.926). This shows that in the published literature, "regional activities" and "material placement", "children", "operation materials", "play activities", "kindergarten teachers" and "teacher-child interaction", "guidance strategy", "Education goals" and "activity areas" are often discussed in combination. A careful analysis of the coefficients in the table shows that "regional activities" and "material placement", "children", "operation materials", "game activities", and "teacher-child interaction" are often presented together (the closest distance); The results of this analysis preliminarily show that in the published research results on the regional activities of kindergartens, the release of materials in regional activities and the interaction between teachers and children in regional games are often discussed.

3.3 High-frequency keyword cluster analysis graph and analysis

Using SPSS22.0 to perform systematic clustering analysis on the Ochiai coefficient similarity matrix of high-frequency keywords, and the clustering result graph is obtained.

According to the connection of the cluster, we divide it into three research frontier classifications. For the sake of illustration, let's take category 1 as an example. At first, each keyword is a separate category. First, calculate the similarity between keywords 19 and 26, aggregate them into the same

category, and then compare them with numbers 17 and 32, aggregate into the same category, and so on, until finally merge with the 23rd and 29th into a big category. Finally, these categories (three categories) are completely combined into another larger category (regional activity research). Through the cluster analysis of the co-occurrence of high-frequency keywords in regional activities, we can objectively see the research hotspots in this field. However, it is still impossible to see the position of each research hotspot in the research of regional activities. Therefore, we need to further analyze through multi-dimensional scales.

3.4 Knowledge map and analysis of regional activity research hotspots

In order to further explore the inner relationship between keywords, SPSS20 is used to conduct multi-dimensional scale analysis on the dissimilarity matrix composed of 40 keywords, and the standardization method selects Z score. The results show that the fitting effect is good, Stress=0.180, RSQ=0.884, which can better reflect the connection status between various keywords. The dissimilarity matrix is then used to analyze ALSCAL with SPSS20.0's multi-dimensional scale and combined with the results of cluster analysis, the knowledge map of regional activity research is drawn. In this strategic map, the closer the keyword relationship is, the closer the relationship between the circles they represent. Generally, in the four quadrants of strategic coordinates, the first image belongs to the research hotspot. The second quadrant has room for further development, the third quadrant is on the edge of the entire research network, and the fourth quadrant is on the edge of the overall work research. Through the analysis of the map, it can be concluded that the research hotspots of regional activities mainly have 3 major thematic areas: problems and countermeasures of regional activities in kindergartens (domain 1), material placement in regional activities, environmental creation and guidance strategies (domain 2), The organization of regional activities and the development of children's abilities (field three).

The first domain is mainly about the problems and countermeasures of children's regional activities. It contains 4 keywords, namely: learning regional activities, problems, countermeasures, and kindergarten. The points in this area are mainly distributed in the first quadrant. It can be seen that the problems and solutions in the activities of kindergartens are the hotspots of research. These keywords reflect that there are some problems in the current regional activities, such as unreasonable regional creation and material delivery, weak organizational and guidance ability of teachers, and large numbers of classes in small spaces. In order to solve these problems, kindergartens should strengthen teachers' teaching and research on the setting and development of regional activities, give full play to the advantages of the integration of all-round educational resources such as kindergartens, communities, and parents, effectively improve teachers' professional quality and teaching ability, and strengthen teachers in training, so as to ensure the effective development of regional activities. In addition, in terms of regional activity guidance, teachers should grasp the characteristics and laws of children's physical and mental development, and set up areas and activities that children love to see according to the general age characteristics of children, so as to further integrate theory and practice, and give full play to the effectiveness of teacher guidance in the region^[3]; In terms of evaluation, teachers should fully respect children's dominant status, achieve a combination of direct evaluation and indirect evaluation, process evaluation and result evaluation, and give full play to the actual effects of evaluation on the basis of full observation to effectively resolve areas problems in the development of activities.

The second domain is mainly about material placement, environmental creation and guidance strategies in regional activities, including 9 keywords: material placement, environmental creation, teacher guidance, guidance strategies, effectiveness, evaluation, rural kindergartens, etc. Domain 2 is located in the first and second quadrants, indicating that the research on material placement and guidance strategies in the region is the focus of previous research. Materials are an indispensable factor in the area, so the selection and delivery of materials directly affect the effectiveness and value of the area. In the area, children can perform activities by manipulating materials to achieve the purpose of development. Therefore, as a teacher, they should select appropriate materials for children, enrich the regional conditions, and create a scaffolding teaching environment for children to stimulate their interest, inspire their thinking, and fully satisfy their curiosity and desire for inquiry. At the same time, it should be noted that teachers should grasp the timeliness, moderation, and appropriateness when conducting regional guidance, so as to become a "catalyst" for the interaction between children and materials. In addition, the research also involves rural kindergartens and it is closer to the center, indicating that more and more attention has been paid to the development of rural kindergartens' regional activities in the past 20 years. Rural kindergartens have abundant local resources and have laid

a material foundation for the development of regional activities. Among them, the popular Anji games and Lijin games in recent years are typical representatives of the localization of regional activities.

Domain three is mainly about the organization of regional activities and the development of children's abilities, including 27 keywords such as language expression ability, operational activities, teacher-child interaction, collective activities, game activities, subjectivity, and autonomous learning. From the distribution of the three points in the field, it can be seen that these points are densely distributed, with a high degree of aggregation, which are distributed in the second, third, and fourth quadrants. The research results in this field are quite fruitful, and it is a field with relatively rich research content of regional activities. The research focus is on the organization of regional activities and the development of various aspects of children's abilities. In regional activities, it is necessary to create a relaxed and democratic atmosphere for children so that children can enjoy activities freely. At the same time, teachers should set up different types of activities in the area to enrich the form of activities, such as group activities, operation activities, and performance activities and exploratory activities. In this way, children can achieve full development in a variety of activities. It requires teachers to pay attention to all children and individual differences when setting up and developing regional activities, conduct more effective teacher-child interactions, and conduct more valuable open questions and give children timely, specific and effective feedback to promote children's independent learning and realize the value of regional activities [4] Although educational concepts and early childhood education reforms are distributed in the fourth quadrant, there is not much research. The potential is also getting more and more attention. Under the kindergarten education guidelines, kindergarten education workers must actively absorb advanced preschool education concepts, carry out effective preschool education reforms, realize the kindergarten-based and characteristic curriculum, strengthen the integration of various resources, and promote the independent construction of children's scientific experience.

4. Conclusions and prospects

To sum up, in the past 20 years, the research of kindergarten regional activities has mainly focused on the problems and countermeasures in regional activities, the distribution of materials in regional activities and the creation of the environment, the interaction between teachers and children in regional activities, and the development of children. From research findings, the development of regional activities under new educational concepts such as the individualization of regional activities, the guidance of teachers in regional activities, ecological regional activities, and mixed-age regional activities, etc., has received increasing attention, and the discussion on the concept and integration of regional activities will be further deepened in the future. Secondly, regional activities in rural kindergartens are an important resource for the development of preschool education, so we can further pay attention to the development of regional activities in rural kindergartens. Third, integrate community and family education resources so that children can promote the development of children's multiple intelligences in different regions. [5] In short, the value of regional activities is that they can meet the different interests and needs of children, promote the full development of children's personality. Infiltrating mental health education in regional activities and paying attention to children's mental health is worthy of our preschool researchers and preschool education practitioners to continue to explore and enrich, so as to achieve the unity of improving the quality of kindergarten education and teaching and the harmonious and healthy development of children's personality.

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