# DETERMINATION OF THE AFFILIATED DEVELOPMENT DEGREE OF SCIENCE, RESEARCH AND TECHNOLOGY MINISTRY UNIVERSITIES IN TERMS OF SPORTS SPACE

**[1]Aiuob Heydari, [2]Seyyed Mohammad Kashef, [2]Mir Hasan SeyyedAmeri, and [3]Mohammad PourMahmood Aghababa**

*[1]Management and Planning PhD student in Physical Education, Urmia University, Iran*
*[2]Department of Physical Education and Sport Sciences, Urmia University, Iran*
*[3]Faculty of Electrical Engineering, Urmia University of Technology, Iran*

*Original scientific paper*

**Abstract**
*A feature of third World countries is severe focus or imbalances, this feature is included of disabled policies of polar growth , as a result of this policy, all the features and power concentration focus in one or more regions and other marginal areas act as marginal. To apply balance and shape adequate and homogeneous spaces, the proposed regional planning has been considered and the first step of regional planning is different socio-economic and cultural areas inequalities knowledge. The purpose of this research is to determine the affiliated Development Degree of Science, Research and Technology Ministry Universities in terms of Sports spaces.The research is descriptive and analytical procedure. The population is the schools of ten districts of Science, Research and Technology Ministry (96 universities). The required data includes physical education and sports indicators and data related to studied documents of the universities was produced by division of construction projects and department of Physical Education and Sport Ministry of Science, Research and Technology and the amounts mentioned in the budget law of 2016 country and the numerical taxonomy method of operation was used to determine the degree of development physical education and sports in terms of physical spaces. The results of the study showed that among all universities, Tafresh University, in terms of physical spaces, located in central province having 2153 students and 6300 square meters of indoor sports hall, swimming pool and available ancillary spaces and under construction has enjoyed among all universities and 15 university without having even one square meter of physical spaces are among the most disadvantaged universities.*

***Key words:*** *regional planning, numerical taxonomy, the degree of development, sport places of universities.*

## Introduction

The essential role of sport in various aspects of human life has led all countries seriously to plan to invest in different sports. Developing countries, requires planning and identifying the resources of their country to strengthen the economic infrastructure and dependency and fix existing imbalances, more than any other time. Certainly the most important factors in the growth and development of a country in order to achieve progress is to know the planning status of different areas respectively. Access to facilities and zoning issues correctly are categories which managers to achieve priority goals for their purposes.

Therefore, detailed studies are to determine the level of requirements. By classification of regions level, reveals spatial, social, cultural and economic divisions. Investment and operation of the sport and physical education follow health and vitality, physical, psychological, intellectual and promotion of national pride and solidarity. The development projects in the country's economic system and budgeting is very important and every year, we spend the bulk of national income to invest in development projects and infrastructure in it. The budget allocation is very important in any organization, especially if you are aware of the fact that the budget is limited and organizations have implemented several projects in mind. Ministry of science, research and technology also is not an exception and with a number of large projects in the field of physical education, tried to take the best decisions on the allocation of its funds in addition to taking into account budgetary constraints, the priorities of the Ministry of Science, Research and Technology will also be considered. Physical education units have been organized in 31 provinces, 10 regions and 96 universities (Table 1). They are all full and meaningful reviewed and analyzed and with determining the degree of development of sports facilities and areas and comparing them with each other, provided fair distribution of resources to all universities in proportion to the sporting facilities and spaces.

Given that sport places are the bed enforcement of activities and sports programs, the quantity and quality of the implementation of training and sports competitions and sports competitions and development has a direct impact among different segments of society, Officials and sports administrators need to anticipate and design and manufacture of sport places for youth (1). This paper aims to investigate and analyze the wealthy (degree of development) of ten districts of Physical Education of the Ministry of Science, Research and Technology of sports and physical education. Of the 28 provinces in Iran in 2005, only one province, Semnan, was in 0.495 with the degree of development of sport facilities and physical

education, Semnan and Zanjan in 2006, were included with respect to the degree of development of 0.712 and 0.755 respectively. In this period, Isfahan, Kohgiluyeh and Boyer-Ahmad, Kerman and Sistan-Baluchistan have been as underdeveloped province in terms of the enjoyment of sports and physical education (2). Most indices are introduced to evaluate the development of social indicators of Fars province have been sport – culture which indicates the acceptance of the nature of sports development as a socio - cultural administrators of province. Public participation in sport has been focused as a principle in planning and the road passes from the development of the community. Too much emphasis on the social aspects - cultural and economic neglect of exercise which has been priority as an investment in most countries is other results of this research.

Table 1. University of the 10 districts of the Ministry of Science, Research and Technology in the provinces.

| Region | Provinces | Number of universities |
|---|---|---|
| 1 | Tehran, Alborz | 12 |
| 2 | Mazandaran, Gilan, Iran | 9 |
| 3 | Ardabil, East Azarbaijan, West Azerbaijan, Zanjan | 11 |
| 4 | Hamedan, Central, Qazvin, Qom | 11 |
| 5 | Kurdistan, Kermanshah, Ilam, Lorestan | 6 |
| 6 | Yazd, Isfahan, Chaharmahal and Bakhtiari | 8 |
| 7 | Gulf, Bushehr, Kohgiluyeh Boyer | 8 |
| 8 | Kerman, Sistan va Baluchestan, Hormozgan | 10 |
| 9 | Khorasan Razavi, Khorasan, South Khorasan, Semnan | 15 |
| 10 | Khuzestan | 6 |

There are four components of the index of "availability and access" the ultimate indicator, indicates that Fars province was still a lack of space per capita sports and development projects, which is one of the important concerns of managers (3). According to a survey carried out by the researcher, there has not been fulfilled a similar study to determine the degree of development in the field of sports and physical education, But studies of development in other areas such as education, housing, healthcare, communications, economic, social and political, welfare, infrastructure and industry, culture and information has investigated disparities in development of the regions studied seems to indicate those components. Taking into account of 11 indicators of communications (fixed phone penetration, mobile penetration, Internet penetration, etc.) and analyze the degree of development of the provinces, Tehran province is in the highest degree of development.

The province with the degree of development of 0.2355 is far from the rest of the provinces. Most provinces in terms of communication are not in a good situation (4). Based on the genetic algorithm of application optimized allocation of human resources in companies that have limited human resources, found in such companies using the most efficient method for allocating human resources is essential and vital, because it makes it less labor costs, shorten the duration of activity and will ultimately better management (5). Applying numerical taxonomy, Morris and Topsis and uses of 36 indicators in five departments, health care, cultural, social, economic and municipal utilities, is marked 5 regions of Rasht ratings and the level of development of each separately. The results indicated that facilities and services are concentrated in the city center. The inequality in five districts has been seen with a significant difference so that the analysis of all three zones one and two are more favorable, but zone five is the most deprived area (6).

International investigation in order to obtain a few specific indicators to measure the development of sports shows that the appropriate criteria for each community, some studies should be based on the community's cultural background and social and economic conditions. Bahita and Ray (2004) have studied to "determine the level of 380 development blocks in 32 districts of India in 2001,"using 23 indicators by factor analysis and numerical taxonomy. Based on the results, 56 developed blocks, 156 relatively developed blocks and, 116 less-developed blocks and 52 underdeveloped blocks have been identified and proposals is presented for the development of these areas (7).

According to Sholnkorf (2012) "Sport for development" program provides holistic but flexible framework that is considered cultural heterogeneity and diversity programs, while implementation forms, assessment and planning ahead helps to encourage development projects. A review of works on the assessment of development in various fields including sports reflects the concern of researchers to achieve a clear understanding of the development situation in this area.

In most of these studies lack of equal opportunities in resources, the planning system center-oriented and utilizes a model of development "center - periphery" have caused significant heterogeneity among the regions closer to the centers of power and centers. In addition, in order to improve and develop sports and physical education in universities of 10 areas of Ministry of Science, Research and Technology is necessary to prioritize the allocation of resources, changed from developed regions to regions of lower and disadvantaged areas or planning in this section, to be set based on the natural, social, cultural and talents and interests of the student population in each area. This investment seems necessary in sport for all students to consider a student who has and requires less cost.

## Materials and methods

Method of this research is a descriptive one that means by collecting the documents and information and statistics. In this study, descriptive and inferential statistical methods and numerical taxonomy rating model was used to identify inequalities. To classify different taxonomic analysis applied sciences was used. Specific type of numerical taxonomy was proposed in 1763 by Adanson. In this thesis an earlier developed method was developed by a group of mathematicians Polish in the early 1950s and in 1968 has been used as a means of classification and degree of development between different nations by Professor Zygmunt Hellwing the Higher School of Economics Worclaw was introduced in UNESCO,.

## Results

In order to determine the degree of development of universities in 10 areas of Ministry of Sciences, Research and technology, 4 indices indoor sports hall area and side spaces (available - under construction) and indoor pool area and side spaces (available - under construction) was used. As well as to determine the most disadvantaged and most enjoyed four prominent universities in terms of physical space, Numerical taxonomy method was used, the most relevant results listed in the table below.

Table 2 .Ranking of the 10 area University of the Ministry of Science, Research and Technology.

| Ranking | University | degree of development | Ideal example | Symbol of development size |
|---|---|---|---|---|
| 1 | Tafresh | 0.16613 | 127.512 | 21.183 |
| 2 | Agriculture and Natural Resources | 0.21032 | 127.512 | 26.818 |
| 3 | Shahr e Kord | 0.22828 | 127.512 | 29.108 |
| 4 | Shiraz | 0.24039 | 127.512 | 30.653 |
| 5 | Qom | 0.25039 | 127.512 | 31.928 |
| 6 | Art | 0.26055 | 127.512 | 33.223 |
| 7 | Elam | 0.27121 | 127.512 | 34.583 |
| 8 | Fasa | 0.27153 | 127.512 | 34.623 |
| 9 | Industrial Sirjan | 0.27390 | 127.512 | 34.925 |
| 10 | Kosar | 0.28322 | 127.512 | 36.114 |
| 11 | Esfahan | 0.28829 | 127.512 | 36.761 |
| 12 | Teacher training | 0.29124 | 127.512 | 37.137 |
| 13 | Khorramshahr Marine Science and Technology | 0.29350 | 127.512 | 37.425 |
| 14 | Zanjan | 0.29415 | 127.512 | 37.508 |
| 15 | Graduate Studies in Basic Sciences | 0.29574 | 127.512 | 37.710 |
| 16 | Imam Reza (AS) | 0.29734 | 127.512 | 37.914 |
| 17 | Industrial Jondi Shapur | 0.30305 | 127.512 | 38.643 |
| 18 | Persian gulf | 0.30398 | 127.512 | 38.761 |
| 19 | Sahand | 0.30450 | 127.512 | 38.827 |
| 20 | Yasouj | 0.30974 | 127.512 | 39.496 |
| 21 | Amir Kabir | 0.31303 | 127.512 | 39.915 |
| 22 |  | 0.31331 | 127.512 | 39.951 |
| 23 | Ayatollah Haeri Maybod | 0.31333 | 127.512 | 39.953 |
| 24 | Hormozgan | 0.31478 | 127.512 | 40.138 |
| 25 | Vali-e-Asr Rafsanjan | 0.31483 | 127.512 | 40.144 |
| 26 | Zabul | 0.31979 | 127.512 | 40.777 |
| 27 | Agricultural Sciences and Natural Resources, Gorgan | 0.32074 | 127.512 | 40.898 |
| Ranking | University | degree of development | Ideal example | Symbol of development size |
| 28 | Kharazmi | 0.32741 | 127.512 | 41.749 |
| 29 | Sistan & Baluchestan | 0.32809 | 127.512 | 41.835 |
| 30 | Ahwaz Shahid Chamran | 0.32988 | 127.512 | 42.064 |
| 31 | Shiraz | 0.33040 | 127.512 | 42.130 |
| 32 | Gonbad Kavus | 0.33046 | 127.512 | 42.138 |
| 33 | Shahrood | 0.33079 | 127.512 | 42.180 |
| 34 | Arak | 0.33087 | 127.512 | 42.190 |
| 35 | Garmsar | 0.33122 | 127.512 | 42.235 |
| 36 | Imam Khomeini International | 0.33151 | 127.512 | 42.271 |
| 37 | Mazandaran Fanavari | 0.33193 | 127.512 | 42.325 |
| 38 | Hakim Sabzvari | 0.33431 | 127.512 | 42.629 |
| 39 | Ayyatolah Burujerdi | 0.33437 | 127.512 | 42.636 |
| 40 | Tehran | 0.33440 | 127.512 | 42.640 |
| 41 | Chahbahar Marine Science | 0.33553 | 127.512 | 42.784 |
| 42 | Birjand | 0.33565 | 127.512 | 42.799 |
| 43 | Sharif | 0.33599 | 127.512 | 42.843 |
| 44 | Maragheh | 0.33786 | 127.512 | 43.081 |
| 45 | Mazandaran | 0.33856 | 127.512 | 43.171 |
| 46 | Golestan | 0.33947 | 127.512 | 43.286 |
| 47 | Kurdestan | 0.33947 | 127.512 | 43.287 |

| | | | | |
|---|---|---|---|---|
| 48 | Damghan | 0.33998 | 127.512 | 43.352 |
| 49 | Tabriz | 0.34012 | 127.512 | 43.369 |
| 50 | Ferdowsi | 0.34037 | 127.512 | 43.401 |
| 51 | Art of Isfahan | 0.34060 | 127.512 | 43.431 |
| 52 | Gui an | 0.34130 | 127.512 | 43.520 |
| 53 | Semnan | 0.34194 | 127.512 | 43.601 |
| 54 | Elm ve Sanat | 0.34220 | 127.512 | 43.635 |
| 55 | Urmia | 0.34256 | 127.512 | 43.681 |
| Ranking | University | degree of development | Ideal example | Symbol of development size |
| 56 | Kashan | 0.34256 | 127.512 | 43.699 |
| 57 | Bu Ali | 0.34271 | 127.512 | 43.739 |
| 58 | Allame tabatabae'i | 0.34302 | 127.512 | 43.778 |
| 59 | Industrial of Isfahan | 0.34332 | 127.512 | 43.872 |
| 60 | Alzahra | 0.34406 | 127.512 | 43.885 |
| 61 | Shahid Madani | 0.34416 | 127.512 | 43.899 |
| 62 | Behbahan Khatamol Anbia Industrial | 0.34427 | 127.512 | 43.944 |
| 63 | Tabriz Islamic Art | 0.34463 | 127.512 | 43.951 |
| 64 | Tehran - Agriculture and Natural Resources | 0.34468 | 127.512 | 44.000 |
| 65 | Razi | 0.34507 | 127.512 | 44.035 |
| 66 | Jiroft | 0.34534 | 127.512 | 44.120 |
| 67 | Industrial of Babol | 0.34601 | 127.512 | 44.199 |
| 68 | Malayer | 0.34663 | 127.512 | 44.230 |
| 69 | Ardakan | 0.34687 | 127.512 | 44.303 |
| 70 | Birjand | 0.34744 | 127.512 | 44.367 |
| 71 | Hoveizeh Industrial | 0.34794 | 127.512 | 44.415 |
| 72 | Shahid Beheshti | 0.34832 | 127.512 | 44.428 |
| 73 | Birjand Industrial | 0.34842 | 127.512 | 44.504 |
| 74 | Yazd | 0.34902 | 127.512 | 44.569 |
| 75 | Khajeh Nasireddin Tusi Industrial | 0.34953 | 127.512 | 44.628 |
| 76 | Lorestan | 0.34999 | 127.512 | 44.652 |
| 77 | Sari Agriculture | 0.35018 | 127.512 | 44.811 |
| 78 | Mohaghegh Ardabili | 0.35143 | 127.512 | 44.919 |
| 79 | Velayat IranShahr | 0.35227 | 127.512 | 45.120 |
| 80 | Farzanegan of Semnan | 0.35385 | 127.512 | 45.189 |
| 81 | Art of Shiraz | 0.35439 | 127.512 | 45.257 |
| 82 | Kerman Shahid Bahonar | 0.35492 | 127.512 | 45.267 |
| 83 | Bonab | 0.35500 | 127.512 | 45.269 |
| Ranking | University | degree of development | Ideal example | Symbol of development size |
| 84 | Amol Fanavari Novin | 0.35502 | 127.512 | 45.287 |
| 85 | Advanced Graduate Studies in Industrial and Advanced Technology | 0.35516 | 127.512 | 45.305 |
| 86 | Ghaenat Bozorgmehr | 0.35530 | 127.512 | 45.308 |
| 87 | Nishabur | 0.35532 | 127.512 | 45.311 |
| 88 | Seyed Jamal AsadAbadi | 0.35535 | 127.512 | 45.315 |
| 89 | Industrial of Hamadan | 0.35538 | 127.512 | 45.315 |
| 90 | Industrial of Kermanshah | 0.35538 | 127.512 | 45.315 |
| 91 | Salman Farsi of Kazrun | 0.35538 | 127.512 | 45.321 |
| 92 | Industrial of Qom | 0.35543 | 127.512 | 45.321 |
| 93 | Torbat Heidariyeh | 0.35543 | 127.512 | 45.324 |
| 94 | Industrial of Urmia | 0.35545 | 127.512 | 45.325 |
| 95 | Jahrom | 0.35546 | 127.512 | 45.325 |
| 96 | Ghuchan Fanavari Novin | 0.35546 | 127.512 | 43.681 |

Table 3. Deprived Universities in Physical Spaces.

| | | N | Ranking |
|---|---|---|---|
| 1 | Technical Engineering of Qouchan New Technologies | 2481 | 96 |
| 2 | Jahrom | **2472** | 95 |
| 3 | Industrial Urmia | **2335** | 94 |
| 4 | Qom Industrial | **2015** | 93 |
| 5 | Torbat heidaryeh | 1973 | 92 |
| 6 | Salman Farsi Kazeroun | **1523** | 91 |
| 7 | Hamedan Industrial | **1519** | 90 |
| 8 | Industrial Kermanshah | **1493** | 89 |
| 9 | Seyyed Jamaleddin Asad Abadi | **1329** | 88 |
| 10 | Neyshabour | **1173** | 87 |
| 11 | Gaenat BozorgMehr | 1113 | 86 |
| 12 | Advanced Graduate Studies in Industrial and Advanced Technology | **740** | 85 |
| 13 | Amol New Technology | **549** | 84 |
| 14 | Art of Shiraz | **260** | 81 |
| 15 | Farzanegan Semnan | **179** | 80 |

**Conclusion**

The results of measuring of development degree of universities in the 10 districts of the Ministry of Science, Research and Technology in terms of enjoyment of physical spaces (spaces halls and swimming pools and accessories) are available as follows: afresh university in the central province having 2153 students in grades Bachelor's, Master's and Ph.D., is superior among the universities (96 University), in terms of physical space referred to university and 5100 square meters of physical space, sports hall and additional available spaces and under construction and 1200 square meter pool and ancillary spaces.

And universities in order of priority set forth in table 4 with the number of students without having even one square meter of physical space including gym and pool areas are the most deprived universities of the Ministry of Science. It is proposed to distribute development credits of physical education department of the Ministry of Science, Research and Technology every year based on the results of the research done, so within the next few years all universities according to the number of students in the areas of sport and physical spaces and have gradually eliminated the disparities.

**References**

Kashef, S.M. (2015). Management of sports facilities and space, the morning of the book, the second edition.

Sadeghi Arani, Z. & Mir Ghafuri, Seyed Habibollah. (2010). "Analysis of the development level of sports during the 85 provinces of Iran in 1384". Research in Sport Sciences, No. 24, pp. 120-103.

Ismaili, A., Atqya, N. & Javadipoor, M. (2014). Index and the process of evaluating the development of sports in Fars province. New approches in Sport Management, Volume 2, Issue 6, Fall 2014, pp: 32. 23.

Assad, Masjedi, Naser, Tutunchi, Jalil & Tabatabai, Z. (2016). Check the degree of development of the provinces in the communications sector with numerical taxonomy method. Paper at an economic conference - economic empowerment behavior modification. Shiraz.

Yousefi, M., Anwari, M., & Noferesti, M. (2015). A model for optimal allocation of human resources capacity using genetic algorithms. Articles on key topics in Management Sciences and Accounting Conference. Gorgan.

Daneh Nezafat, AR & Molaei Hashjin, N. (2016). Comparative Rasht development of urban areas using multi-attribute assessment methods. Human settlements planning studies, the eleventh year, No. 34, Spring 2016, pp. 16-1.

Monfaredian Sarvestani, Mohsen. (2007). Rating different parts of the city of Shiraz in terms of the degree of development, Master Thesis, University of Isfahan.

Hekmatnia, Hassan Mousavi, & Mir Najaf (2006). The use of models in geography with an emphasis on urban and regional planning, New Publications.

*Received: December 20, 2017*
*Accepted: December 20, 2021*
*Corresponding author:*
*Corresponding Author*
*Aiuob Heydari*
*Management and Planning PhD student*
*Physical Education, Urmia University, Iran*
*Email: aiuob.heydari@gmail.com*