

LOCAL KNOWLEDGE ARTICLES MAPPING IN UNIVERSITAS PADJADJARAN JOURNALS

Gelina Sima Margaretha¹, Wina Erwina², Elnovani Lusiana³

¹Program Studi Perpustakaan dan Sains Informasi, Universitas Padjadjaran

Jl. Raya Bandung – Sumedang Km. 21, Jatinangor, Sumedang, West Java, 45365

E-mail: ¹Gelinasima@gmail.com ²Wina.erwina@unpad.ac.id ³Elnovanilusiana@gmail.com

Abstract

This research discusses the bibliometric mapping of local knowledge articles in Universitas Padjadjaran through the journal Universitas Padjadjaran using VOSviewer software. The method used in this research is quantitative with bibliometric analysis using co-words. The database used as research material is 503 local knowledge articles with various search keywords. The results of this research are the development of the number of local knowledge articles in Universitas Padjadjaran which has increased since 2001-2020. West Java is the region that has the highest number of local knowledge articles. The most popular topics are culture and local wisdom.

Keywords: *Bibliometrics, Co-words, VOSviewer, Local Knowledge.*

PREFACE

Knowledge will always evolve as time goes by. Cultures of every countries can gain more exposure with the development of information and globalization. The culture itself is a unique value with characteristics that differ from others. This is the reason as to why do indigenous knowledge exists in the first place. This knowledge has become the largest cultural wealth source that has a great chance to develop. The development does not apply only to modern knowledge, but knowledge that originate from our ancestors also have potential values. Indigenous knowledge can be researched and developed so it is able to give new ideas to existing knowledge disciplines.

Local knowledge system or indigenous knowledge or local wisdom is a concept about phenomenon in local communities and came from the mindsets of the communities which then can be seen and felt. Indigenous knowledge has a broad scope that covers many aspects of life. Among those are regarding nature, things, flora, fauna, and events that occurred in the past. The relationship between humans and nature then becomes a bond that gives humans experiences and knowledge. Often these experiences are delivered orally which results in the lack of scientific explanations. The understanding that we obtain then become what we call as indigenous knowledge.

According to the dictionary, local wisdom consists of two words: wisdom and local.

Generally, local wisdom can be defined as a form of local ideas which is full of wisdom, virtuous values and is followed by the member of the community. In anthropology, Sartini (2004) local genius, a form of indigenous knowledge. Local genius can be defined as a cultural identity of a nation that allows them to absorb and manage foreign cultures according to their own characters. Moendardjito stated that cultural elements have the potential to be a local genius because it has proven to last until today. The characteristics are listed below: (Sartini, 2004)

1. Existing culture is able to withstand the influence of foreign culture;
2. Existing culture is able to accommodate foreign culture elements;
3. Local culture is able to integrate foreign culture elements into its own;
4. Existing culture has the ability to control;
5. Local culture is able to give directions for cultural growth.

As stated by Soh and Omar (2012) in Nurislaaminingsih, Erwina, & Rohman (2019), indigenous knowledge is the ability of a group of individuals, that contains some sort of wisdom, belief, and lessons that applies in certain communities. In general, this knowledge is passed on by the ancestors through oral delivery. The form also varies, ranging from folklore, rituals, legends, traditional songs, to customary law. Indigenous knowledge is a combination of every

skills and expertise that were obtained through parents, customary chiefs, and also elders of the community. This knowledge is continuous and usually there are still lack of knowledge documentation. Indigenous knowledge then become an asset for local communities. Indigenous knowledge encompasses many aspects of life, one of which is culture. According to Kartawinata (2011) The concept of culture is something that is close to the lives in a community. Anthropologists stated that culture holds a complex meaning including knowledge, beliefs, art, tradition, law, morals, etc. With that being said, the knowledge capacity that every individuals hold have are different compared to what other communities have. This is caused by the fact that this knowledge exists orally and sustainable, hence the differences study process, environment and experience of each group. (Suparlan, 2005)

Indigenous Knowledge is a concept that is implemented by every community in their day-to-day lives. This knowledge is the guidance of rulemaking, law, economy, and others so that it becomes a complete order in community life. The presence of this knowledge has become a unique characteristic that belongs to each community. Therefore, differences in perspectives of each community towards indigenous knowledge is common and is not a problem. In the contrary, this is a strength that makes it a more interesting subject to be studied because it creates new knowledge.

Indigenous knowledge has a lot of characteristics. According to Ellen dan Harris in Senanayake, (2006, 87-88) explain ten characteristics as listed below:

1. Indigenous knowledge is local. It is rooted from certain regions and a series of experiences of people. As a result, if knowledge is being transferred to other region, the risk is losing its own region.
2. Indigenous knowledge is transferred orally or through imitation and demonstration. Consequentially, converting the knowledge into written form might change the content of the knowledge. However, this will make the knowledge more permanent.
3. Indigenous knowledge is a result of repeated daily activities and strengthen by new

experiences. These experiences are unique products of each generation.

4. point 1 and 3 supports further general observation, that it is more of an empirical knowledge than a theory. With certain limits, oral usage hinders the control that is needed to expand the right theoretical knowledge.
5. The form of repetition is the most important characteristic of tradition, even when new knowledge is added. Repetition will help to review and emphasize existing ideas.
6. Tradition can be considered as 'a dynamic and ever-changing without a true ending' when applied to knowledge and the main concept is negotiation. Thus, indigenous knowledge continues to be produced and reproduced, found and lost; although it is often portrayed as static.
7. Traditional knowledge is divided into a higher level compared to other type of knowledge. Thus, occasionally it is referred to as 'people's science'. However, the distribution is still segmental and socially grouped. Normally it is distributed asymmetrically in a population, according to gender and age and maintained by distribution through different individuals' recollections. Some may possibly be derived from experiences.
8. Even though real knowledge might be focused only to certain individuals and able to achieve a coherence level in rituals or other symbolic constructions, the distribution is always separated. In general, it is not discovered in one place ore one individual. This knowledge is developed in practices and interactions in which a person participates.
9. Regardless of the claim of the existence of abstract classification that covers all cultures(universally) according to non-functional criteria; in which real knowledge is located on the densest point and is able to be directly implemented, fundamentally the organization is functional.
10. Indigenous knowledge is uniquely in a broader cultural situation. Separating the technical and non-technical; rational and irrational, is quiet a complicated matter.

Seeing the indications of indigenous knowledge development, this research will look at how indigenous knowledge develop in the scope of

Universitas Padjadjaran. As a higher education institute, of course Universitas Padjadjaran responds to the advancement of knowledge direction, be it nationally or globally. Researchers are interested in finding out which of these topics are growing in Universitas Padjadjaran through the publication articles. Universitas Padjadjaran has numerous knowledge discipline focus, which means there are a lot of diversity inside. Knowledge diversity in Universitas Padjadjaran result in the need of a more accurate mapping to understand this topic. This study can be explored to bibliometric. Quantitative-bibliometric, one of which to identify the direction of research and development of knowledge in different disciplines, able to predict directions of the past, present, and future. Furthermore, to control information and communication stream. Through the Universitas Padjadjaran journal, this research will be conducted to map indigenous knowledge.

Knowledge mapping through bibliometric can be used to integrate knowledge according to the topics presented. Knowledge mapping practically has an essential role in establishment, learning and dissemination of a knowledge. The utilization can be in a form of guides of several disciplines to explore information. As for the advantages of knowledge mapping according to Sulistiyo-Basuki (2002, 1) are:

1. Knowledge mapping is used for technology management purposes, including research program definition.
2. Decisions regarding activities that involves technology.
3. Structure design based on knowledge and
4. Education and training programs.

According to Archambault (2004) bibliometrics is made out of methods for conducting quantitative analysis of a knowledge. With this broad purpose, bibliometric can be mapped into various knowledge disciplines to see the developments accurately. Moreover, considering the other purpose differences, Ishak (2005) emphasizes that bibliometric can be utilized as a descriptive study related to, authorship, and is evaluative in terms of studying the use of literature through its citation analysis.

Through bibliometric, can be explored further. The result of bibliometric is none other than illustration or pattern about the author, subject

usage as a keyword, an also citation. Bibliometric is also able to illustrate the collaboration between authors that are tackling similar topics. This study is very useful for authors because numerous indigenous knowledge themed topics can be found. The problem is none of them include the term 'indigenous knowledge' in the title nor the abstract of the study. This makes it less easy for those who seek information. Because it is a unique knowledge, the titles that are written by lecturers come in many variations. There are titles that directly mention the subject and object without generalizing it into indigenous knowledge nor traditional knowledge. With a mapping system using bibliometric, similar keywords of those studies can be discovered.

This study will be focused on co-words analysis. According to Qin He (1999) Co-words is a method which purpose is to analyze document by utilizing words pattern in corpus texts to identify the link between issues in a knowledge discipline found written in texts. Indexed according to co-occurrence item frequency, such as inclusion index and closeness index which then will be used to measure the strength of the correlation between each item.

Topic mapping with co-words analysis can be done through VOSViewer software. VOSViewer is a computer program that is useful to create, visualize, and explore bibliometric data network scientific map. VOSViewer can be used for analyzing every kind of bibliometric network data type, for instances publication quotes, author collaborations, and repeated emergence in scientific terms. VOSviewer offers visualization in mapping form and grouping depending on the chosen units. (Eck & Waltman, 2016)

Networks that create bibliometric patterns can be in the form of documents derived from journals, articles, and newspapers. Then those networks will be built based on quotations, bibliography relations, co-citation, or co-authorship relationship. VOSviewer is also able to visualizes important terms from scientific literatures. Based on that visualization, colors and distance that show up represent meanings that can be communicated. VOSviewer is available for download at www.vosviewer.com. As for the

usage of VOSViewer is to construct and visualize bibliometric networks. With results from VOSViewer, descriptive illustration of the outcome of research conducted in Universitas Padjadjaran through Universitas Padjadjaran journal.

Based on the explanation above, the problem formulation of this research is How Bibliometric Mapping with VOSviewer Indigenous Knowledge Articles in jurnal.unpad.ac.id. Therefore, the purposes of this research are: 1.) Discovering the growth rate of the amount of indigenous knowledge articles in Universitas Padjadjaran journal based on year of publication; 2.) Knowing the total amount of indigenous-knowledge-related articles in Universitas Padjadjaran journal based on region distribution; 3.) Knowing the frequency of local knowledge articles publication in the journals of Universitas Padjadjaran journal; 4.) Discovering the map of local knowledge articles based on keywords.

RESEARCH METHOD

This research is using bibliometric method with quantitative approach. Bibliometric research in quantitative research is an application of mathematics, calculation, and statistical analysis method. Bibliometric research as told by Connaway & Powell (2010) is *bibliometric research, especially if quantitative, involves the application of mathematical formulas and considerable counting and statistical analysis. Bibliometric analysis have greatly benefited from the availability of computerized bibliographic database, citation indexes and statistical programs*. Bibliometric analysis greatly benefitted for the availability of computerized bibliographic database, quotation index, and statistic programs.

The population of this research is 112 publication journals accessed from UNPAD website of numerous knowledge disciplines. Based on category, those journals are publication from various faculties, which are Faculty of Communication Science, Faculty of Economics and Business, Pharmacy, Law, Social and Political Sciences, Medicine, Dentistry, Nursing, Mathematics and Natural Sciences, Agriculture, Animal Husbandry,

Geological Engineering, and Agricultural Industrial Technology. These journals have thousands of publication articles, written in different writing formats.

Data accumulation is done through Universitas Padjadjaran journal using several keywords tribe, culture: *suku* (tribe), *budaya*, *tradisional* (traditional culture), local wisdom, local knowledge, *pengetahuan lokal* (local knowledge) and *kearifan lokal* (local wisdom). Based on the search results it is found that there are 503 indigenous knowledge article titles from 53 journals from 2001 until March 2020.

During data analysis process, firstly data is turned into database using Microsoft Office and arranged according Scopus dataset arrangement. Some of the contents of this dataset are authors, title, year, source title, cited by, link, affiliations, author with affiliations, abstract, index keyword, document type, dan source. For analysis process and obtaining research map, the accumulated database is exported in CSV (Comma Separated Value) file. The exported database is then processed and analyzed using VOSViewer software program to visualize indigenous knowledge articles bibliometric results using co-words analysis. VOSViewer analysis generates three types of visualization. In co-words analysis, the generated visualization is density visualization.

As for statistical analysis, the description that is used in this research is an attempt to present data in histogram, ogive, etc. Descriptive statistic is used to analyze data by describing or illustrating data without any intention on drawing a conclusion or making a generalization (Sugiyono, 2016). The statistical data of this research will show the growth of indigenous knowledge articles based on year of publication, region distribution, and the journals in which those articles are published in.

RESULT AND DISCUSSION

This sub-chapter is using descriptive statistical analysis to see the distribution frequency of data accumulated on this research. Those data are calculated with frequency and the result came in percentage. In order to calculate

percentage from frequency the following formula is used:

$$P = \frac{f}{n} \times 100\%$$

Explanation:

n= the sum of occurrence

f= data frequency

Indigenous Knowledge Articles Based on Year of Publication

Result from searching in Universitas Padjadjaran journal indicates an increase in indigenous knowledge research during 2001-2020. Significant increase is seen between 2011-2015. Details are given in Table 1 and Figure 1.

No	Year	f	%
1	2001-2005	9	1,8
2	2006-2010	26	5,1
3	2011-2015	101	20,1
4	2016-2020	367	73
TOTAL		503	100

Table 1. Total Amount of Indigenous Knowledge Publication Articles

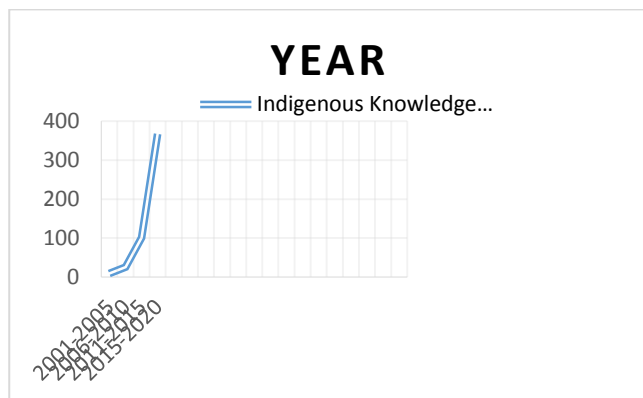


Figure 1. Graph of The Number of Indigenous Knowledge Articles

The year category used in this research is based on the data that writer retrieved from Universitas Padjadjaran journal. Indigenous knowledge articles are arranged using database so that the data show up from latest (March 2020) to least (2001). For the duration of that period, 503 indigenous knowledge articles are found. Writer divided the period into five years. Throughout the first five years there are 9 indigenous knowledge articles (1,8%), during the second period (2006-2010) there are 26 indigenous knowledge articles (5,1%), then in 2011-2015 there are 201

indigenous knowledge articles (20,1), in the last period (2016-2020) there is an increase in the number of indigenous knowledge articles publication, reaching 367 articles (73%).

Indigenous knowledge articles that were processed by year of publication can also describe or show the growth of indigenous knowledge topic in Universitas Padjadjaran. As seen on Figure 1 in which from 2001 until 2020 there is an increase of indigenous knowledge topic publication. It is also shown that a significant increase began since the last five years, from 2016 until March 2020, with a total of 367 articles. This growth of numbers might be influenced by Universitas Padjadjaran's policy of giving professors who are going to write scientific papers an incentive. Indigenous knowledge certainly can serve as an alternative on writing a scientific paper subject, because of the phenomenon happening today. For example, culture has become an appeal for researchers since it is related to interpretation of events that occur daily. The same goes with the development of traditional medicine testing. Of course, this phenomenon can be further researched with the help of science, technology, etc. Indigenous knowledge is one of the most interesting subjects as it requires continuous experiments and observations.

Indigenous Knowledge articles Based on Region

No.	INDONESIA ARCHIPELAGO	TOTAL/f	%
1	Sumatera	42	8,3
2	Java	318	63,2
3	Sulawesi	12	2,4
4	Borneo	9	1,8
5	Maluku Islands	13	2,6
6	Nusa Tenggara Islands	14	2,8
7	Papua	6	1,2
8	others.	89	17,7
TOTAL		503	100

Tabel 2. Indigenous knowledge articles based on region

The table above shows indigenous knowledge articles region distribution in Universitas Padjadjaran. The regions above are grouped by seven archipelagos in Indonesia. Each

archipelago has different number of provinces. As for others, it represents the number of indigenous knowledge articles which are written generally without information regarding specific locations and/or encompass all of Indonesia. The region with the highest number is Java with 318 articles (63,2%).

Due to the fact that Universitas Padjadjaran is located in West Java Province, this research also elaborates further on indigenous knowledge articles distribution, more specifically in West Java. This is also a result Universitas Padjadjaran's research and community service being more concentrated in West Java. Indigenous knowledge articles region distribution in Universitas Padjadjaran is showed in figure 2 below.

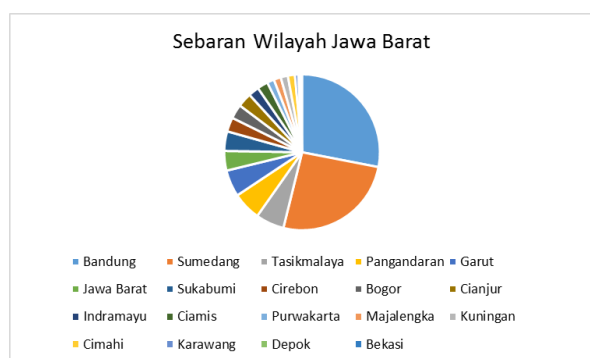


Figure 2. Indigenous Knowledge distribution Pie Chart in West Java

Based on the figure above, it can be concluded that the biggest piece is Bandung and Kab/Kota Sumedang with 76 and 70 articles each. Following is Pangandaran and Tasikmalaya with the same amount of 16 articles. Next is Garut with 15 articles, Sukabumi with 11 articles, Cirebon with 8 articles, Bogor with 8 articles and Cianjur with 8 articles. At the eleventh position is Indramayu with 8 articles, then Ciamis 6 articles, Purwakarta with 4 articles, Majalengka with 4 articles, Kuningan with 4 articles, Cimahi with 4 articles, Karawang with two articles and lastly 1 article each for Depok and Kab. Bekasi. As for the total amount of articles in West Java is 271. However, there are 11 articles discussing West Java as a whole or in general.

Indigenous Knowledge Articles Based on Journal

No.	Journal Name	Jumlah Articles
1	Journal of Social Sciences and Humanities	83
2	Journal of Community Service	51
3	Dharmakarya Journal	36
4	Farmaka Journal	35
5	Journal of Communication Sciences	28
6	Padjadjaran Journal of Law Studies	21
7	UMBARA Indonesian Journal of Anthropology	20
8	Biotika Journal	17
9	Journal of Information Science and Library Agricore: Journal of Agribusiness and Social Economics	17
10	Agriculture	15
11	Journal of Animal Husbandry	13
12	Share: social work Journal	13
13	Journal of Socioglobal	11

14	Journal of Bionature	10
15	Journal of Communication Management	10
16	Journal of Farmasetika Magazine	9
17	Journal of Public Relations Profession	8
18	Kumawula: Journal of Community Service	8
19	Research and Community Service Proceeding	8
20	Tornare: Journal of Sustainable Tourism Research	7

Table 3. Indigenous Knowledge Articles Based on Journal

No.	Faculty	Journal Name
1	Communication Sciences	Journal of Communication Sciences
		Journal of Information Science and Library
		Journal of Communication Management
		Journal of Farmasetika Magazine
2	Law	Padjadjaran Journal of Law Studies
3	Social and Political Sciences	UMBARA Indonesian Journal of Anthropology
		Share: Social work Journal
		Research and Community Service Proceeding
		Jurnal Socioglobal
		Kumawula: Journal of Community Service
4	Pharmacy	Farmaka Journal
		Journal of Farmasetika Magazine
5	Mathematics and Natural Sciences	Biotika Journal
6	Animal Husbandry	Journal of Animal Husbandry
7	Agriculture	Agricore: Journal of Agribusiness and Social Economics
8	Others	Journal of Bionatura
		Journal of Community Service
		Tornare: Journal of Sustainable Tourism Research
		Journal of Social Sciences and Humanities
		Dharmakarya Journal

Tabel 4. Journals grouped by knowledge discipline

It is shown in table 4 that seven knowledge disciplines have the highest amount of indigenous knowledge articles in Universitas Padjadjaran Journal. As for others category are publications which aren't in the scope of Universitas Padjadjaran scope. Journal of Bionatura, Journal of

Community Service, Journal of Social Sciences and Humanities, and Dharmakarya Journal published by Universitas Padjadjaran through Directorate of Academic Resources and Central Library of UNPAD. Whilst Tornare: Journal of Sustainable

Tourism Research adalah is published by Universitas Padjadjaran post-graduate school.

Co-Word Map Density Visualization

The following is a visualization of indigenous knowledge articles map in Universitas Padjadjaran, composed of 45 clusters.

Cluster 1 are Pharmacological Activities, Antioxidants, Arjasari Village, Emping, Corn, Jubika, Sustainability, Profits, Herbal Medicine, Income, Wound Healing, Potential, Appropriate Technology; Cluster 2, namely Sundanese Culture, Explicit, Identity, Commodification, Knowledge Management, Social Media, Motivation, Marketing, Knowledge, Attitudes, Tacit.; Cluster 3, namely CSR, ethnography, gender, participation, government, community development, borders, perspectives, mining, change, vegetable pesticides; Cluster 4, are Anticancer, Cirebon, Diabetes, Education, Herbal, Personal Identity, Herbal Medicine, Traditional Medicine, Adolescents, Medicinal Plants; Cluster 5, are Interethnic, Cultivation, Ecotourism, Fish, Tourism Communication, Mangrove, Pangandaran, Processed Products, Promotion of Communication Strategy; Cluster 6 are Tourism Villages, Bamboo Crafts, Community, Nagari, Regional Autonomy, Training, Community Empowerment, Local Potential, Arts .; Cluster 7 are Ethnobotany, Medical Plants, Development, Local Knowledge, Traditional Medicine, Socialization, Bone Fracture Therapist, Medicinal Plants, Tourism .; Cluster 8 are Business, Economics, Ethnobiology, Indigenous Peoples' Rights, Environment, Development, Organic Fertilizer, Natural Resources, Traditions; Cluster 9 are Sundanese Language, Fairy Tales, Character, National Character, Health, Society, Education, Elementary School;

Cluster 10 are Bandung, Geopark, West Java, Policy, Poverty, Model, Tourism, Resilience; Cluster 11 are Mekargalih Village, Traditional Village, Local Wisdom, Food Security, Indigenous Communities, Empowerment, Alternative Medicine, Behavioral Communication; Cluster 12, namely Anthropology, Culture, Indonesia, Culture, Women, Sundanese, Television; Cluster 13 are Indonesian Culture, Sundanese Ethnic, Ethnographic Communication, Intercultural Communication, Padang, Communication Patterns;

Cluster 14 are Ideology, Islam, Medicine, Social Change, Suryalaya *Pesantren*, Transformation; Cluster 15 are Adok Nickname, Diversity, Message Platform, Reputation, Siger;

Cluster 16 are Power and Communication, Meaning, Politics, Texts; Cluster 17 are Folklore, Intellectual Property Rights, Legal Protection; Cluster 18 are Ethnopharmaceutical, Cikondar Traditional Village, Wild Medicinal Plants; Cluster 19 are Institutions, Product Systems, Social; Cluster 20 are Fortification, Kerupuk; Cluster 21 are Innovation, Interpretation; Cluster 22 are Cancer, Chemotherapy; Cluster 23 are Growth, Productivity; Clusters 24 are Conflict Resolution, Traditional;

As for the total of mapping clusters are 45 clusters, in which starting from cluster 25 to cluster 45 only consists of one term. Here are the terms: agribusiness manga, baduy, local culture, cianjur, village, diversity, ethnicity, event, flavonoids, gelatin, internalization, leadership, health communication, community participation, social workers, rations, rituals, sociolinguistics, spf, strategy, and oral tradition. The occurrence of one keyword in each cluster occurs because the index keyword mapped has no connection between the documents used in the study. The multitude of clusters is also because of the lack of connection between keywords on Universitas Padjadjaran indigenous knowledge research documents.

The indigenous knowledge map based on word density or co-words in Universitas Padjadjaran Journal is shown on figure 3.

Figure 3 represent the density map of words from keywords analysis that is used in 503 indigenous knowledge articles in Universitas Padjadjaran, including related and non-related words. This density map is showing the frequency of the terms that are found in Universitas Padjadjaran Journal articles. Terms with higher appearance frequency will seem redder. The color yellow represents a relatively high density whilst green signifies the opposite.



Based on the results and conclusions described above, there are several suggestions put forward: the author recommends conducting further research on the mapping of indigenous knowledge articles at Universitas Padjadjaran. These indigenous knowledge articles include both printed and electronic journals. Then through the journal manager of Universitas Padjadjaran as a data source. Universitas Padjadjaran can conduct a socialization in West Java as an effort to provide benefits to the community regarding local

CONCLUSION

Based on the indigenous knowledge articles, the author does not deny that there are still indigenous knowledge articles that are not covered due to limited keywords so that the development of indigenous knowledge articles at Universitas Padjadjaran can still increase in terms of the number / quantity of publications.

knowledge. The Padjadjaran University Journal manager is also expected to make arrangements in the publication of indigenous knowledge articles to match the Study Program Journal or knowledge discipline available in the Padjadjaran University Journal. This categorization can make it easier for information seekers to find indigenous knowledge articles according to certain subjects / disciplines. Lastly, the collaboration between researchers and the management of the Padjadjaran University Journal in determining the selection of the right keywords, especially for research on local knowledge topics. Of course, this will require the ability to analyze the subject of documents, namely Zipf law, which can be done by students of the Library and Information Science study program.

REFERENCES

- Archambault, E. (2004). The Use of Bibliometrics in the Social Sciences and Humanities. *Sosial Science Journal*, 1.
- Eck, N. J. Van, & Waltman, L. (2016). VOSviewer Manual 1.6.11. *Manual*, (version 1.6.4), 1–28. Retrieved from <http://www.vosviewer.com/documentation/M> anual_VOSviewer_1.5.4.pdf
- He, Q. (1999). Knowledge Discovery Through Co-Word Analysis. *Library Trends*, 48(1), 133–159. <https://doi.org/x>
- Ishak. (2005). *Analisis Bibliometrika Terhadap Articles Penelitian Penyakit MalariadiIndonesia Tahun 1970 April 2004 Menggunakan Database Online PubMed*. Medan: Pustaka.
- Sartini. (2004). Menggali Kearifan Lokal Nusantara Sebuah Kajian Filsafati. *Jurnal Filsafat*, 37.
- Senanayake, S. G. J. N. (2006). Indigenous knowledge as a key to sustainable development. *Journal of Agricultural Sciences*, 2(1), 87. <https://doi.org/10.4038/jas.v2i1.8117>
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: PT. Alfabet.
- Sulistiyo-Basuki. (2002). *Bibliometrika, Sainmetrika dan Infometrika: Dalam kumpulan Makalah Kursus Bibliometrika*. Jakarta: Masyarakat Infometrika Indonesia.
- Suparlan, P. (2005). *Suku bangsa dan Hubungan Antar Sukubangsa*. Jakarta: Yayasan Pengembangan Kajian Ilmu Kepolisian.