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SPECIAL ISSUE - The 500th Anniversary of Conversion of St. Ignatius of Loyola

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Social Competence of Preschoolers	Mathematics Anxiety and Numerical Ability	Intelligent Quotient and Academic Stress	Online Learning and Academic Anxiety	Enriching E-Learning
Organizational Climate of Teacher Education Institutions	Self-Efficacy, Academic Achievement and Social Media Usage	Package for the Mothers of Children with Sensory Processing Disorder	Handling Students with Learning Disabilities	Scientometric in Research output
Life Skills and Technology	Career Guidance Programme for Grade IX Students	Attitude of Teachers towards Educational Media	Attitudinal Change towards Present Examination	Academic Honesty Scale
Professional Ethics of Teachers	Sustaining School Education	Teachers' Pedagogical Beliefs	E - Content Package and Achievement in Tamil Poetry	Social Media Usage Scale
TQM in Teacher Education Institutions	Budding Teachers and Social Media	ICT and Livelihoods of Students	Emotional Intelligence and Academic Achievement	Concept Mapping and Achievement in Zoology
Rebuilding Examination System	Teaching Strategies and Reflective Thinking	Brain Based Learning and Learning Vivacity	Violence against Children	Mobilization and Retention of Disadvantaged Girls for Education
Women Awareness through Kanyasulkam Prakalpa	Yoga: An Educational Tool	Soft Power in India's Foreign Policy		



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Dear Readers!

Greetings from the team of RRE.

It is our joy to bring out this eighth special issue while we reflect the completion of the celebration of 500th year of the conversion of St. Ignatius of Loyola. Ignatius of Loyola, S.J., venerated as Saint in the Catholic Church, was a Spanish Catholic priest and theologian; along with two of his friends, founded the religious order of the Society of Jesus, and became its first Superior General, in Paris in 1541. The members of the Society, known as Jesuits, are best known for their significant role in education, theology, missionary work and publishing, with a strong emphasis on social justice and human rights. They run many prestigious secondary schools and universities around the world and publish leading intellectual journals. St. Xavier's College of Education, one of the Jesuit institutions of Madurai Province of India is known for its service to the Society through its formation of prospective teachers.

SXCE began its teacher education service in 1950 and today equipped with autonomy, it has created a new curriculum, relevant to the times and pivotal to the development of students. For an effective transaction in the classroom, the three elements namely, the content, the pedagogy and the interactive group of the teacher and students are to be focused. Though the elements of content and interaction of the participants are essential, the pedagogy ultimately influences the outcomes of the transaction. The olden days had witnessed the methods of lecturing and dictations, but today, the learners are very much concerned about the use of modern technology and innovations.

Which means, the teacher educators as well as students have to update themselves with recent discoveries of technology that are very much learner-centred. The place of ICT, especially the virtual reality not only at the time of corona season, but even during the normal times should be recognized. A lot of apprehension is expressed about the readiness of the teacher educators in using the modern technology in transacting the content with students. Regular in-service programmes and training schedules are to be prepared and organised; later, the uninterrupted usage of interactive boards and other facilities are to be encouraged among the faculty followed by the prospective teachers. Coupled with sincere monitoring and usage of ICT, the teaching community will not only be acknowledge for its involvement in the new methodology but also the intensity of commitment for the sake of students which enhance the image of the institution. Let the teaching community take a promise to frequently use the technology so that the future teaching community may be really resourceful. We wish every faculty the best of luck and thank our staff for bringing this special issue on time.

Continue to write to us about the elements to be rectified and we keenly await your encouraging word. Your feedbacks are also welcome in written format about the various articles in our journal so that this journal remains as the excellent one. My special thanks to our Prof. Dr. Antonyraj and his assistant N. Rajkumar for their unending effort to make this special issue appear on the desks of every library.

Thanking you in anticipation...

In service
Editorial Board



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SCIENTOMETRIC DIMENSION OF RESEARCH OUTPUT ON
VIRTUAL LEARNING ENVIRONMENT: A SCOPUS BASED
EVALUATION OF TWO DECADES

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ABSTRACT

The virtual learning environment has gained momentum in recent days, especially during the pandemic period. Most learners are in virtual learning mode these days. This paper identifies the research productivity in the field of the virtual learning environment by the faculty of social sciences, as indexed in the Scopus database from 2000 to 2019. Out of the 6923 articles considered for the analysis, 3419 publications (49.38 percent) are journal articles. The journal "Computers and Education" published 226 articles (3.26 percent) and Castro, M contributed 23 articles as the most prolific source and author respectively. The United States of America contributed 1627 articles (23.50 percent). The Open University of the USA published 69 articles and topped the most productive institutions' table. It is suggested to extend more funds to the young researchers to contribute papers in the most talked-about field of the day 'Virtual Learning Environment'.

Keywords : *Virtual Learning Environment, Research productivity, Scientometrics, Productive Institutions, Prolific Authors.*

Introduction

The Virtual learning environment is the current trend study in education. The innovative ideas in educational technology have created new teaching and learning tools in a Virtual learning environment like a virtual classroom, virtual reality, and flipped classroom. The Virtual learning environment provides the experimental ideas of the curriculum. Students easily understand science, mathematics, and biology through a virtual learning environment. The Teachers provide the pictures, lessons, videos, audio, and practical examples of the subject in the virtual learning environment. In these Google online days, the concept of blackboard teaching decreases. This paper focuses on the scientometric study of the research publications related to the virtual learning environment. This study explores the growth and development of the publications on "virtual learning environment" as indexed in the Scopus database and contributed by the Social Sciences faculty.

Definition of Scientometric Study

The term scientometric was coined in 1969 by the Russian scientists Nalimov and Mulechenko. The main aim of the scientometric study is to provide a

quantitative analysis of the keyword, author productivity, affiliating institutions, and journals. In the last two decades, library and information science professionals published more number of papers in scientometrics. The Scientometric study provides the visibility of the publications in the specific field, authors' collaboration, affiliations, and sponsoring institutions.

Significance of the Study

The role virtual learning environment is the most wanted one for all higher education institutions and provides the facilities in physical and virtual modes. In recent years highly utilized these VLE based activities

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have and a number of articles written by researchers in the field of social sciences. This time is the correct time for analyzing the output of Virtual Learning Environment topics in and around the world. So that his study identified the output of articles in the Virtual Learning Environment over the past two decades.

Literature Review

Constantinos Coursaris and Wietske Van Osch (2014) conducted a search productivity analysis and citation analysis of people, institutions, and countries supported 610 peer-reviewed social media articles published in journals and conference proceedings between October 2004 and December 2011. The results show that: the social media domain displays limited diversity and is still heavily influenced by practitioners. The paper raises two fundamental challenges facing the social media domain and its future advancement, namely the shortage of educational maturity and therefore the Matthew Effect. This paper identified foundational research areas, theoretical perspectives from a range of social science disciplines, and potential research questions that evoke the involvement of current peripheral actors to support the advancement of the social media domain into new, broader, and more pertinent territory.

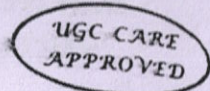
Raja and Murugan (2015) presented a bibliometric analysis of the 'Journal of Research and Reflections on Education' from 2004 to 2013 (Ten Years). The pattern of a variety of articles published, number of authors, contribution, number of studies associated with the geographic jurisdiction, the quantity of pages contribution, number of references cited within the articles, designation wise authors contribution, and topics covered in the journal were studied. The highest number of articles was (31) published in the year 2006. 60.76% of the articles (161 articles) are contributed by double authors. 71.94% of the authors are from colleges and universities. 83.39% of the articles (221) are state-level studies. 15.85% of the articles (42) covered the area of "teaching skills".

Objectives for the Study

The following objectives are framed for the study:

1. To carry out the subject-wise analysis of global VLE Research output
2. To investigate the various sources of VLE research output

3. To examine the types of documents found in VLE research output
4. To explore the contributions of different countries in VLE research output
5. To understand the most productive authors in VLE research output and
6. To understand the most productive institutions in VLE research output



Methodology

This study analyzed the results extracted from the Scopus database. The required data for the present study is the bibliographical records on the virtual learning environments downloaded from the Scopus database from 2000 to 2019. Out of 13362 articles published, only 6923 articles published in the subject area 'Social Sciences' were included in the analysis.

Data Analysis and Interpretation

Table 1
Forms of Publications

Document Type	No. of Documents	Percentage
Article	3419	49.38
Conference Paper	2286	33.02
Book Chapter	769	11.1
Review	177	2.55
Conference Review	153	2.21
Book	88	1.27
Editorial	18	0.26
Short Survey	6	0.08
Note	3	0.04
Erratum	2	0.02
Letter	1	0.01
Retracted	1	0.01
Total	6923	100

Table 1 reveal that the research output on virtual learning environment by the social scientists cover most of the forms of publications. . Out of the 6923 publications, 3419 publications (49 percent) journals articles, followed by 2286 publications (33 percent) are conference papers, 769 publications (11 percent) are book chapters. 177 publications (2.5 percent) are

reviews and 153 publications (2 percent) are conference reviews while there are 88 books. Other forms of publications like editorials, short surveys, notes, errata, letters, and retracted publications were found to be less than 20. Thus, journal articles, conference papers, and book chapters are the most preferred communication medium among the researchers in the 'Virtual Learning environment'.

Top-Productive Authors

Table 2 reveals that out of the 6923 publications, the highest number of 23 articles (0.33 percent) were authored by Castro, M., 22 articles (0.31 percent) by Tsiatsos, T., 20 articles (0.28 percent) by Lan, Y.J., 18 articles (0.26 percent) by Ketelhut, D.J., 16 articles (0.23 percent) each by Dede, C, Nelson, B.C, and Wood, D., 15 articles (0.21 percent) by Gregory, S., and 14 articles (0.20 percent) each by Esche, S.K, and Jong, M.S.Y.

Table 2

Top-Productive Authors

Authors	No. of Documents	Percentage
Castro, M.	23	0.33
Tsiatsos, T.	22	0.32
Lan, Y.J.	20	0.29
Ketelhut, D.J.	18	0.26
Dede, C.	16	0.23
Nelson, B.C.	16	0.23
Wood, D.	16	0.23
Gregory, S.	15	0.22
Esche, S.K.	14	0.2
Jong, M.S.Y.	14	0.2

Table 3 states that out of the 6923 publications, 69 articles (0.99 percent) were published by the Open University of U. K, followed by 63 articles (0.91 percent) from the Universidad Nacional de Educacion a Distancia, 61 articles (0.88 percent) from the Universitat Oberta de Catalunya, 49 articles (0.70 percent) from the Arizona State University, 45 articles (0.65 percent) from the National Taiwan Normal University and 43 articles (0.62 percent) from the Curtin University. The rest of the top 10 institutions published less than 0.5 percent of records in 'Virtual learning environment' research.

Table 3

Most Productive Institutions

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Institutions	No. of Documents	Percentage
Open University, UK	69	0.1
Universidad Nacional de Educacion a Distancia	63	0.91
Universitat Oberta de Catalunya	61	0.88
Arizona State University	49	0.7
National Taiwan Normal University	45	0.65
Curtin University	43	0.62
Nanyang Technological University	38	0.55
Indiana University Bloomington	38	0.55
University of Central Florida	36	0.52
The University of Sydney	34	0.49

Table 4

Source-wise distribution of Publications

Source Title	No. of Documents	Percentage
Computers and Education	226	3.26
Proceedings Frontiers in Education Conference FIE	144	2.08
British Journal of Educational Technology	96	1.38
Educational Technology and Society	82	1.18
Computer Applications in Engineering Education	64	0.92
International Journal of Emerging Technologies in Learning	60	0.86
Turkish Online Journal of Distance Education	52	0.75
Interactive Learning Environments	51	0.73
International Journal of Engineering Education	49	0.7
Journal of Computer Assisted Learning	48	0.69

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Table 4 reveal that the journal "Computers and Education" is the most productive source with 226 articles (3.26 per cent) followed by 144 articles (2.08 per cent) published in the Proceedings Frontiers In Education Conference Fie, 96 articles (1.38 per cent) published in the British Journal of Educational Technology, 82 articles (1.18 per cent) published in the Educational Technology And Society, 64 articles (0.92 per cent) published in the Computer Applications in Engineering Education, 60 articles (0.86 per cent) published in the International Journal of Emerging Technologies in Learning, 52 articles (0.75 per cent) published in the Turkish Online Journal of Distance Education, 51 articles (0.73 per cent) published in the Interactive Learning Environments, 49 articles (0.70 per cent) published in the International Journal of Engineering Education, and 48 articles (0.69 per cent) published in the Journal of Computer Assisted Learning.

Table 5

Ten Most Productive Countries in VLE Research

Country	No. of Documents	Percentage
United States	1627	23.5
the United Kingdom	964	13.92
Spain	574	8.29
Australia	465	6.71
Brazil	271	3.91
Taiwan	243	3.51
Canada	230	3.32
Germany	191	2.76
Italy	191	2.76
China	183	2.64

Table 5 reveals that out of the 6923 publications, 1627 articles (23.50 percent) were contributed by the United States, followed by 964 articles (13.92 percent) from the United Kingdom, 574 articles (8.29 percent) from Spain, 465 articles (6.71 percent) from Australia, 271 articles (3.91 percent) from Brazil, 243 articles (3.51 percent) from Taiwan, 230 articles (3.32 percent) from Canada, 191 articles each (2.75 percent) from Germany and Italy, and 183 articles (2.64 percent) were contributed by China.

Conclusion

Out of the 6923 publications on virtual learning

environments contributed by the researchers of social sciences, most of the publications were journal articles.

The research output on VLE gradually increased over the years because more learning tools are created every day by experts in the field of learning and teaching. This study identified that one of the authors Castro, M contributed 23 articles in the virtual learning environment. The United States of America and The United Kingdom published 1627 and 964 articles respectively in the field of the virtual learning environment. Also, this study identified the journal of Computers and Education published 226 articles in the field of the virtual learning environment. Thus, it is clear that the quantum of publications in the field of virtual learning environments is gradually increasing and most nations are participating. This study recommends that the agencies should extend more funding assistance for encouraging the authors to write articles in the field of the virtual learning environment.

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