

CONFLUX

JOURNAL OF EDUCATION

ISSN 2320-9305 (PRINT) ISSN 2347-5706 (ONLINE)

A PEER REVIEWED JOURNAL PUBLISHED SINCE 2013

VOLUME 12

ISSUE 2

JUNE 2024

cjoe.naspublishers.com

INDEX

Sl.	Title	Page
1	Integration of ICT in Teacher Training Institutions: A Transformation in the Paradigm of Teacher Education Aamir Majeed and Prof. Syedah Fawzia Nadeem	6-15
2	Awareness on Utilization of Community Resources in Teaching Chemistry at Secondary School Level A.Devi and Dr.T.Kanakaraj	16-24
3	Teachers Professional Development and Job Satisfaction Ashish Kumar	25-30
4	Teacher’s Professional Development in Online Social Networking Sites Cathrine Asha S. and Dr. Blessing Mary	31-39
5	Life Style and Attitude towards Sustainable Development Goals among Prospective Teachers at Secondary Level Sreevidya R. and Dr. Mubi K. Mohamed Ali	40-57
6	Socio-emotional Skills among Secondary School Students of Standard Nine in terms of Gender and Demographic Location of Udupi District Rose Kiran Pinto	58-71
7	Blended Learning: A Vision for the Future Dr. Fatma Gausiya	72-87
8	A Study on Perception of Student Teachers on Professional Development Dr. Manju N.D	88-103
9	Emerging Need of Blended Learning Dr. Pratibha Khare	104-115

11	Role of Fourth Industrial Revolution and Education 4.0 on Sustainable Development in Education Dr. Seema Gopinath	116-124
12	Efficacy of Indigenous Rhymes in Developing Student Engagement and Motivation Dr. Prithi Venkatesh, Ms. Sreevidya MS, Ms. Nisha A, Mr .Srinivasa R	125-139
13	Transforming Education: Evaluating The Implementation and Effects of the 2020 Education Policy Dr. Veena Khilnani	140-146
14	Educational Significance of Inclusion in Reducing Juvenile Delinquency-Need for Multi-dimensional Approach Dr.C.B.Vikram	147-165
15	From Exclusion to Excellence: Overcoming Obstacles to Inclusion in Schools Dr. Rajeshwari Garg	166-176
16	Impact of Artificial Intelligence Enabled Technological Pedagogical Implications in Higher Education Dr.S.Ammami, Dr.M.Anita, Ananya	177-186
17	The Effect of Artificial Intelligence on Research Methodology Dr. Taiyaba Nazli	187-194
18	Empowering Educators: Navigating Continuous Professional Development In Alignment With NEP 2020 In India. Jagirdar Lubna Batool and Dr. Syed Azaz Ali	195-206
19	Inevitability of Assessment and Feedback Strategies in the Teaching- Learning Continuum Jasmine. J	207-214
20	Vital Role of Teachers, Parents and Students as a Joint Venture in Inclusive Education Mrs. Jyothi H.D.	215-221

21	Humour as an Effective Teaching Strategy Madan Kumar	222-229
22	Significance of Inclusive Education in Fostering Social Justice in India Mamta and Nivedita	230-243
23	An Investigation of the Gender Disparity in the Teaching Abilities of Trainee Teachers Mrs. Mirza Humaira Batul	244-256
24	Enhancing Learning of Students through Formative Feedback in Higher Education Monal	257-267
25	Exploring the Preparedness for LMS among Teacher Educators and B.Ed. Students in the Current Education Scenario Dr.M.Ponnambaleswari and Aswathy C.K.	268-281
26	The Family Environment Promotes Student Engagement and Motivation N. Revathy and Dr. A. Blessing Mary	282-285
27	Transformative Education Reforms: Catalyzing Social Justice in India Pooja and Nivedita	286-294
28	Exploring Participatory Pedagogy for Cultivating Inclusivity in Classroom Prabhleen Saini	295-307
29	Transforming Education: A Journey Towards Transgender Inclusion Prakasha C.	308-320
30	Impact of Competency Based Education on Learning Outcomes Prashasti Singh and Dr. Kalpana Thakur	321-333

31	An Introduction of Inclusive Education Rajesh Kumar Pathak	334-343
32	E- learning: Impact on Psychosocial Competence Ms. Rajwinder Kaur and Dr. Gagandeep Kaur	344-353
33	Computer-Based Programmes to Improve Communication with Children with Special Needs: Cerebral Palsy Ramesh	354-363
34	Nurturing Students Engagement: An Educator’s Role in Fostering Autonomy, Competence, and Relatedness in Teaching-Learning Process Saroj Rani	364-388
35	Life Style and Attitude towards Sustainable Development Goals among Prospective Teachers at Secondary Level Sreevidya R. and Dr. Mubi K. Mohamed Ali	389-405
36	Perception of Pre-service Teachers towards Blended Learning in Teaching-learning Process Ghazala Parveen	406-429

Awareness on Utilization of Community Resources in Teaching Chemistry at Secondary

School Level

A.Devi
Ph.D. Research Scholar
V.O.C College of Education
Thoothukudi

Dr.T.Kanakaraj
Principal
V.O.C College of Education
Thoothukudi

Abstract

The main objective of the study was to find out whether there is any significant relationship between utilization of community resources in teaching chemistry and students' achievement. The investigator has adopted the survey method. The population of the present study includes all the high and higher secondary school chemistry handling teachers of Thoothukudi district. Four tools were developed by the investigators were used to study the variables. Percentage analysis, t-test, and correlation analysis were used for analysis of data. The major findings were that, the secondary level chemistry teachers have moderate level of awareness on availability of community resources, there is significant difference between Tamil and English medium school secondary level chemistry teachers in their utilization of health resources, there is significant relationship between utilization of chemical resources.

Introduction

Science is an accumulated and systematized learning in general usage restricted to natural phenomenon. The progress of science is marked by not only an accumulation of fact, but also the emergence of scientific method and of the scientific attitude. Chemistry is an important branch of science. Chemistry is, useful in understanding the changes taking place in the constituents of the environment and the resulting advantages. The study in chemistry in modern times has been greatly facilitated because of effective inter-linking of numerous facts and principles established from it.

Rationale of the Study

The Kothari commission (1964-1966) states, “If science is poorly taught and badly learnt, it is little more than burdening the mind with dead information and it could degenerate even into new superstitions”. The latest slogan in education in all the progressive countries is “let us study the community, use the community, serve the community and involve the community in the educational process”. Community resources and experiences can enrich science instruction. Indeed, there are many who feel that there is an unacceptable gap now between the chemistry that is taught in many students and the chemistry that is being pursued, whether it is academic, industrial or environmental. Imagination and creativity in using community resources can help students connect school chemistry with applications in the community, as well as helping students better learn to basic concepts.

Statement of the Problem

Awareness on Utilization of Community Resources in teaching Chemistry at Secondary School level.

Objectives of the Study

1. To find out the level of utilization of community resources in teaching chemistry by the secondary level chemistry teachers.
2. To find out whether there is any significant difference between Tamil and English medium school secondary level chemistry teachers in their Utilization of health resources, energy resources, chemical resources, human resources, environmental resources, scientific attitude and community resources in teaching chemistry by the secondary level chemistry teachers.
3. To find out whether there is any significant relationship between utilization of health resources, energy resources, chemical resources, human resources, environmental resources, scientific attitude and community resources by the secondary level chemistry teachers in teaching chemistry and achievement of their standard X students in chemistry.

Hypotheses of the Study

1. The level of utilization of community resources in teaching chemistry by the secondary level chemistry teachers is moderate.
2. There is no significant difference between Tamil and English medium school secondary level chemistry teachers in their Utilization of health resources, energy resources, chemical resources, human resources, environmental resources, scientific attitude and community resources in teaching chemistry by the secondary level chemistry teachers.
3. There is no significant relationship between utilization of health resources, energy resources, chemical resources, human resources, environmental resources, scientific

attitude and community resources by the secondary level chemistry teachers in teaching chemistry and achievement of their standard X students in chemistry.

Methodology of the Study

The investigator has adopted the survey method for the present study. The population of the study consists of all secondary school chemistry teachers in Thoothukudi district. The sample consists of 200 secondary level chemistry teachers. Multistage random sampling technique was used. A checklist and a questionnaire were used to find the awareness on availability and utilization of community resources respectively. The investigators constructed and validated the tools. Percentage analysis, t-test and Pearson correlation coefficient were used for the present study.

Analysis of the Data

Table 1

Level of Utilization of Community Resources of the Secondary Level Chemistry Teachers

Community Resources and its Dimensions	Low		Moderate		High	
	No.	%	No.	%	No.	%
Health Resources	32	16.0	144	72.0	24	12.0
Energy Resources	40	20.0	134	67.0	26	13.0
Chemical Resources	44	22.0	126	63.0	30	15.0

Environmental Resources	45	22.5	120	60.0	35	17.5
Human Resources	48	24.0	132	66.0	20	10.0
Scientific Attitude	44	22.0	136	68.0	20	10.0
Community Resources	38	19.0	135	67.5	27	13.5

It is inferred from the above table that 72.0 %, 67.0%, 63.0%, 60.0 %, 66.0%, 68.0% and 67.5% of secondary level chemistry teachers have moderate level of utilization of health resources, energy resources, chemical resources, environmental resources, human resources, scientific attitude and community resources respectively.

Table 2

Difference between Tamil and English Medium School Secondary Level Chemistry Teachers in Utilization of Community Resources and Its Dimensions

Community Resources and its Dimensions	Medium of Instruction	Mean	SD	N	Calculated 't' value	Table Value at 5% level	Remark
Health Resources	Tamil	11.07	2.74	132	2.35	1.96	S
	English	11.96	2.42	68			
Energy Resources	Tamil	14.44	3.42	132	0.80	1.96	NS

	English	14.84	3.28	68			
Chemical Resources	Tamil	28.39	6.09	132	1.60	1.96	NS
	English	29.76	5.60	68			
Environmental Resources	Tamil	11.61	2.82	132	1.62	1.96	NS
	English	12.25	2.57	68			
Human Resources	Tamil	15.09	3.53	132	1.16	1.96	NS
	English	15.69	3.43	68			
Scientific Attitude	Tamil	10.39	2.49	132	0.20	1.96	NS
	English	10.32	2.32	68			
Community Resources	Tamil	90.98	15.69	132	1.71	1.96	NS
	English	94.82	14.73	68			

Since the calculated 't' value is greater than the table value at 5% level of significance, there is significant difference between Tamil and English medium school secondary level chemistry teachers in their utilization of health resources. Hence, the null hypothesis is rejected. But, there is no significant difference between Tamil and English medium secondary level chemistry teachers in their utilization of chemical resources, energy resources, human resources, environmental resources, scientific resources and community resources. Hence, the null hypothesis is accepted.

Table 3

Relationship between Awareness On Utilization Of Community Resources Of The Secondary Level Chemistry Teachers And Achievement Of Their Standard X Students In Chemistry

Availability of Community Resources	N	Calculated value of 'r'	Table value of 'r'	Remarks at 5% level
Health Resources		0.088		NS
Energy Resources		0.075		NS
Chemical Resources		0.169		S
Human Resources	200	0.009	0.138	NS
Environmental Resources		0.015		NS
Scientific Attitude		-0.009		NS
Community resources		0.101		NS

It is inferred from the above table that there is significant relationship between utilization of chemical of the secondary level chemistry teachers in teaching chemistry and achievement of their standard X students in chemistry. But there is no significant relationship between utilization of health resources, energy resources, chemical resources, human resources, environmental resources, scientific attitude and community resources of the secondary level chemistry teachers in teaching chemistry and achievement of their standard X students in chemistry.

Findings of the Study

1. The level of utilization of health resources, energy resources, chemical resources, environmental resources, human resources, scientific attitude and community resources is moderate.

2. There is significant difference between Tamil and English medium school secondary level chemistry teachers in their utilization of health resources. Hence, the null hypothesis is rejected. But, there is no significant difference between Tamil and English medium secondary level chemistry teachers in their utilization of chemical resources, energy resources, human resources, environmental resources, scientific resources and community resources. Hence, the null hypothesis is accepted.
3. There is significant relationship between utilization of chemical of the secondary level chemistry teachers in teaching chemistry and achievement of their standard X students in chemistry. But there is no significant relationship between utilization of health resources, energy resources, chemical resources, human resources, environmental resources, scientific attitude and community resources of the secondary level chemistry teachers in teaching chemistry and achievement of their standard X students in chemistry.

Conclusion

From this study it is clearly understood that, teachers should use community resources regularly in the classroom. So, chemistry teachers should develop their knowledge and adopt techniques of utilization of community resources to enhance the student's achievement.

References

- Aggarwal, J. C. (2008). Educational Reforms in India. Delhi: Shirpa Publications.
- Best, J. W., & Khan, J. V. (1992). Research in Education. New Delhi: PHI Learning Private Limited.
- Dash, B. N. (2008). Teaching of Science. Delhi: Dominant Publishers and Distributors.

Kothari, C. R. (2008). *Research Methodology, Methods and Techniques*. New Delhi: New Age International Pvt. Ltd.

Novelty Journals. (n.d.). *Availability and Utilization of Instructional Materials for Effective Teaching and Learning of Basic Science in Secondary Schools*. *International Journal of Research in Education and Science (IJRES)*, 1(1), 45-56. Retrieved from <https://www.noveltyjournals.com/upload/paper/Availability%20and%20Utilization%20of%20Instructional-1072.pdf>

Vaidya, N. (1968). *Problem Solving in Science*. Madras: S. Chand & Co.

Wadding, D. L. (1984). *Teaching School Chemistry*. New Delhi: Sterling Publishers Private Limited.