

A Comparison Study on Molecular Interaction of an Acidic Organophosphoric Extractant with Substituted Aromatic Hydrocarbon (*p*-xylene/toluene) at 303.15K

Biswajit Dalai^{1,*}, Prativa Kar², Sarat Kumar Dash³, Saroj Kumar Singh⁴

¹ Department of Physics, School of Science, GIET University, Gunupur, Odisha – 765022, India; biswajit@giuet.edu (B.D.)

² Department of Chemistry, School of Science, GIET University, Gunupur, Odisha – 765022, India; prativakar@giuet.edu (P.K.);

³ Department of Physics, Regional Institute of Education (NCERT), Bhubaneswar, Odisha– 751022, India; skdash@yahoo.com (S.K.D.);

⁴ Institute of Minerals and Materials Technology (CSIR), Bhubaneswar, Odisha – 751013, India; sarojsingh@gmail.com (S.K.S.);

* Correspondence: biswajit@giuet.edu;

Scopus Author ID 35368227700

Received: 15.09.2020; Revised: 7.10.2020; Accepted: 8.10.2020; Published: 12.10.2020

Abstract: In the present study, the excess molar volume (V^E) and the deviations in intermolecular free length (ΔL_f), isentropic compressibility ($\Delta\beta_s$), acoustic impedance (ΔZ), and ultrasonic velocity (ΔU) were calculated using the experimentally measured values of density (ρ) and ultrasonic velocity (U) of binary mixtures of an acidic organophosphoric extractant (DEHPA) with two substituted aromatic hydrocarbons, i.e., *p*-xylene and toluene at 303.15K and atmospheric pressure, 0.1MPa over the entire composition range of DEHPA. The results of both binary mixtures have been presented graphically and compared in terms of molecular interaction between unlike molecules of the mixtures, which outcome may be applied in the solvent extraction process.

Keywords: density; ultrasonic velocity; excess/deviation properties; molecular interactions.

© 2020 by the authors. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Ultrasonic and volumetric properties of binary organic liquid mixtures have been investigated by a number of researchers [1-3] over the last several decades. Such studies have great relevance in many areas of theoretical and applied fields on solvent extraction. The interaction parameters such as excess molar volume (V^E) and the deviations in isentropic compressibility ($\Delta\beta_s$), intermolecular free length (ΔL_f), acoustic impedance (ΔZ), and ultrasonic velocity (ΔU) were calculated using the experimentally measured values of density (ρ) and ultrasonic velocity (U), are of considerable interest in understanding the inter- and intramolecular interactions in liquid mixtures [4-6]. The acidic organophosphoric extractant, di-(2-ethyl hexyl) phosphoric acid (DEHPA) is widely used as an extractant [7, 8] for the extraction of actinides, lanthanides, and other valuable metals, viz. zinc, cobalt, copper, lead, beryllium, etc. In continuation of our earlier work [9-11], we propose to extend our investigation to make a comparison study on molecular interaction between two substituted aromatic hydrocarbons (*p*-xylene and toluene) with DEHPA, which could be used as a better modifier with DEHPA for solvent extraction process.

शैक्षिक मंथन

(द्विभाषी मासिक)

शैक्षिक क्षेत्र की प्रतिनिधि पत्रिका

वर्ष : 13 अंक : 8 1 मार्च 2021

फाल्गुन, विक्रम संवत् 2077

संस्थापक
स्व. मुकुन्दराव कुलकर्णी

परामर्श
के.नरहरि
डॉ. विमल प्रसाद अग्रवाल
जगदीश प्रसाद सिंघल
शिवानन्द सिन्दनकेरा

सम्पादक
डॉ. राजेन्द्र शर्मा

सह सम्पादक
भरत शर्मा

संपादक मंडल
प्रो. नन्दकिशोर पाण्डेय
डॉ. एस.पी. सिंह
डॉ. ओमप्रकाश पारीक
डॉ. शिवशरण कौशिक

प्रबन्ध सम्पादक
महेन्द्र कपूर

व्यवस्थापक
वज्ररंग प्रसाद मजेजी

प्रेषण प्रभारी : नौरंग सहाय

कार्यालय प्रभारी :
आलोक चतुर्वेदी : 8619926481

प्रकाशकीय कार्यालय
82, पटेल कॉलोनी, सरदार पटेल मार्ग,
जयपुर (राजस्थान) 302001
दूरभाष : 9414040403

दिल्ली व्यूरो :
शैक्षिक महासंघ सदन, 606/13,
कृष्णा गली नं.9, मौजपुर, दिल्ली-110053
दूरभाष : 011-22914799

E-mail :
shaikshikmanthan@gmail.com
Visit us at :
www.shaikshikmanthan.com

एक प्रति ₹ 25/- वार्षिक शुल्क ₹ 250/-
आजीवन (दस वर्ष) ₹ 2000/-

पृष्ठ संयोजन : सागर कम्प्यूटर, जयपुर

शैक्षिक मंथन मासिक में प्रकाशित
सामग्री से संपादक मण्डल का सहमत
होना आवश्यक नहीं है तथा चित्रों का
प्रतीकात्मक प्रयोग किया गया है।

कौशल विकास और शिक्षा

□ प्रो. प्रकाश चंद्र अग्रवाल

हमारा भारत देश जनसंख्या की दृष्टि से संपन्न व युवा देश है। यहाँ लगभग 36.5 करोड़ युवा हैं तथा देश की 62 प्रतिशत आबादी (15-59 वर्ष की) कार्यशील जनसंख्या में शामिल है। परंतु दुर्भाग्य से बेरोजगारी का घुन इन युवाओं में लगा हुआ



है, जिसको दूर करने का प्रयास अनेक सरकारी योजनाओं द्वारा स्वतंत्रता प्राप्ति के बाद से ही किया जाता रहा है, जिनका प्रभाव नगण्य रहा। परंतु वर्तमान में भारत सरकार द्वारा इस पर गहन विचार कर कई आवश्यक कदम उठाए गए हैं।

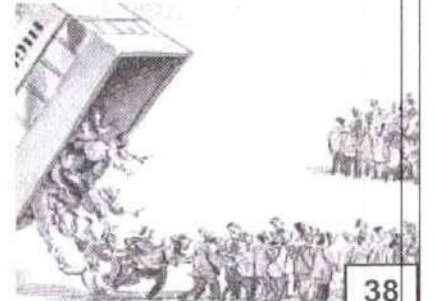
अनुक्रम

- | | |
|---|-----------------------------|
| 4. सम्पादकीय | - डॉ. राजेन्द्र शर्मा |
| 8. शिक्षा से ही रोजगार संभव | - कमल मिश्रा |
| 11. आत्मनिर्भर भारत का सेतुबन्ध-राष्ट्रीय शिक्षा नीति | - प्रो. शैलेश कुमार मिश्रा |
| 14. कौशल विकास के लिए अपर्याप्त से पर्याप्त प्रयास | - डॉ. राजेश जाँगीड़ |
| 17. रोजगार कौशल और छात्रों की मानसिकता | - डॉ. तक्षशिला मोटधरे |
| 19. भारत में ऑनलाइन शिक्षा की व्यवस्था | - प्रो. सतीश कुमार |
| 21. बेरोजगारी की समस्या और समाधान | - डॉ. पप्पू लाल गुप्ता |
| 23. स्वदेशी अर्थात् आर्थिक आत्मनिर्भरता | - प्रो. आर.सी. अग्रवाल |
| 25. अंधेरे के भटकाव में अवसरों का उषःकाल | - प्रो. कौमुदी क्षीरसागर |
| 28. बेरोजगारी की समस्या और समाधान | - डॉ. अंजली चंद्रकांत पांडे |
| 30. रोजगार के विविध क्षेत्र एवं शिक्षा | - डॉ. अरूण कुमार रघुवंशी |
| 34. आत्मनिर्भर भारत योजना | - डॉ. रणजीत सिंह बुडानिया |
| 36. Remedies to fill in Industry & Academia... | - Prof. Prathamesh Bobhate |
| 40. Skill Development Plans and Employment... | - Dr. Swati Sherekar |

Problems of Unemployment and its Solutions

□ Prof. Binod Kumar Kanaugia

The types of unemployment may vary across different places including seasonal, disguised, vulnerable, technological, frictional, structural, cyclical etc. but the prominent reasons include mismatch of skills and education levels of the labour force and the needs of the job requirements along with the rapidly rising population. Although, the literacy rates have risen in the last few decades, but there still remains a fundamental flaw in the education system in India.



शैक्षिक मंथन (मासिक) 1 मार्च 2021

3

प्राचार्य/PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर/Bhubaneswar-751004



कौशल विकास और शिक्षा



प्रो. प्रकाश चंद्र अग्रवाल

प्राचार्य
क्षेत्रीय शिक्षा संस्थान,
भुवनेश्वर (ओडिशा)

जिस प्रकार काष्ठ में लगी दीमक, शरीर में लगा क्षय रोग, काष्ठ और शरीर को जर्जर कर धीरे-धीरे खत्म कर देता है उसी प्रकार युवा पीढ़ी का बेरोजगार होना उनको धीरे-धीरे क्षय करके पतन की ओर अग्रसर करता है, यह गेहूँ में लगे घुन की तरह होता है।

हमारा भारत देश जनसंख्या की दृष्टि से संपन्न व युवा देश है। यहाँ लगभग 36.5 करोड़ युवा हैं तथा देश की 62 प्रतिशत आबादी (15-59 वर्ष की) कार्यशील जनसंख्या में शामिल है। परंतु दुर्भाग्य से बेरोजगारी का घुन इन युवाओं में लगा हुआ है, जिसको दूर करने का प्रयास अनेक सरकारी योजनाओं द्वारा स्वतंत्रता प्राप्ति के बाद से ही किया जाता

रहा है, जिनका प्रभाव नगण्य रहा। परंतु वर्तमान में भारत सरकार द्वारा इस पर गहन विचार कर कई आवश्यक कदम उठाए गए हैं। राष्ट्रीय शिक्षा नीति 2020 के रूप में भी ये गंभीर प्रयास हमारे सामने हैं।

अभी तक शिक्षा का मुख्य फोकस (उद्देश्य) डिग्रीधारी बनाने और उसके माध्यम से सरकारी नौकरियों की प्राप्ति पर था। पाठ्यक्रमों में रोजगारपरक व कौशल्युक्त पाठ्यक्रमों का अभाव एवम शिक्षा का कौशल और प्रशिक्षण से जुड़ाव नहीं था। जिसका परिणाम डिग्रीधारी अकुशल युवकों की संख्या में वृद्धि के रूप में देखा जा सकता है।

माननीय प्रधानमंत्री जी की सोच इस दिशा में काबिले तारीफ है, उन्होंने देश के युवाओं व उनके भविष्य को सँवारने व सजाने हेतु देश को राष्ट्रीय कौशल विकास योजना दी तथा देश में 2014 में कौशल विकास और उद्यमिता मंत्रालय की स्थापना की। इस योजना के अंतर्गत उद्योगों की माँग को देखते हुए एक परिणामोन्मुखी प्रशिक्षण के लिए रूपरेखा

तैयार करना और स्थायी आजीविका के लिए युवाओं को प्रशिक्षण देना गैर संगठित क्षेत्र (जैसे निर्माण क्षेत्र) में कौशल विकास के लिए क्षमता का निर्माण करना और इन पहचाने गए क्षेत्रों में श्रमिकों के कौशल हेतु मार्ग प्रशस्त करना। इसके मुख्य उद्देश्य है। इसमें पारंपरिक तरीके के सभी व्यवसायों जैसे- बड़ई, मोची, वेल्डर, लुहार राजमिस्त्री, नर्स, दर्जी, बुनकर आदि के लिए प्रशिक्षण एवं मार्गदर्शन दिया जाना अपेक्षित है साथ ही नए क्षेत्रों जैसे रियल स्टेट निर्माण, ट्रांसपोर्टेशन, वस्त्र, धातु उद्योग, आभूषण, डिजाइनिंग, बैंकिंग, पर्यटन आदि क्षेत्रों को शामिल कर उसके लिए कौशल युक्त युवा तैयार करना है।

इस योजना द्वारा ट्रेनिंग के साथ-साथ स्वयं का व्यवसाय लगाने हेतु आर्थिक सहायता और नौकरी चाहने वालों को रोजगार मेलों के माध्यम से नौकरी दिलवाने में सहायता की जाएगी। सस्ती दर पर ऋण सुविधा उपलब्ध होगी। इस प्रकार देखा जाए तो कौशल विकास

शैक्षिक मंथन

(द्विभाषी मासिक)

शैक्षिक क्षेत्र की प्रतिनिधि पत्रिका

वर्ष : 14 अंक : 3 1 अक्टूबर 2021

आश्विन, विक्रम संवत् 2078

संस्थापक
स्व. मुकुन्दराव कुलकर्णी

परामर्श
के.नरहरि
डॉ. विमल प्रसाद अग्रवाल
जगदीश प्रसाद सिंघल
शिवानन्द सिन्दनकेरा

सम्पादक
डॉ. राजेन्द्र शर्मा

सह सम्पादक
भरत शर्मा

संपादक मंडल
प्रो. नन्द किशोर पाण्डेय
डॉ. एस.पी. सिंह
डॉ. ओमप्रकाश पारीक
डॉ. शिवशरण कौशिक

प्रबन्ध सम्पादक
महेन्द्र कपूर

व्यवस्थापक
बजरंग प्रसाद मजेजी

प्रेषण प्रभारी : नौरंग सहाय

कार्यालय प्रभारी :
आलोक चतुर्वेदी : 8619926481

प्रकाशकीय कार्यालय
82, पटेल कॉलोनी, सरदार पटेल मार्ग,
जयपुर (राजस्थान) 302001
दूरभाष : 9414040403

दिल्ली ब्यूरो :
शैक्षिक महासंघ सदन, 606/13,
कृष्णा गली नं.9, मौजपुर, दिल्ली-110053
दूरभाष : 011-22914799

E-mail :
shaikshikmanthan@gmail.com
Visit us at :
www.shaikshikmanthan.com

एक प्रति ₹ 25/- वार्षिक शुल्क ₹ 250/-
आजीवन (दस वर्ष) ₹ 2000/-

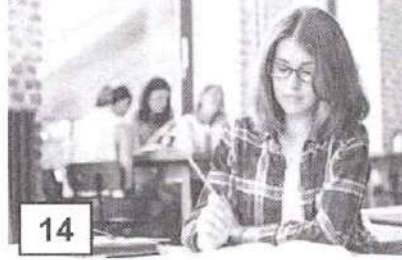
पृष्ठ संयोजन : सागर कम्प्यूटर, जयपुर

शैक्षिक मंथन मासिक में प्रकाशित
सामग्री से संपादक मण्डल का सहमत
होना आवश्यक नहीं है तथा चित्रों का
प्रतीकात्मक प्रयोग किया गया है।

अध्यापक शिक्षा से अपेक्षाएँ

□ प्रो. सुदेश कुमार शर्मा

अध्यापक शिक्षा की गतिशील अवधारणात्मक सहमति के बावजूद अध्यापक शिक्षा की अधिकांश प्रणालियाँ व प्रतिमान स्थायी अवधारणाओं के अनुसार संगठित किये गये हैं। अध्यापक शिक्षा सुधार मुख्यतः प्रारम्भिक अध्यापक शिक्षा तक ही केन्द्रित रहे हैं। अध्यापक शिक्षा को सचमुच एक मुक्त व गतिशील प्रणाली निर्मित करने में कई समस्याएँ हैं, जिनमें कभी कभी



अध्यापक शिक्षा व अध्यापन व्यवसाय के पुराने सम्प्रत्ययों का धराशायी होना भी समाविष्ट है। ऐसी स्थिति में अध्यापक शिक्षा के सुधार पर परिष्कार हेतु तत्सम्बन्धी मुख्य विषयों का विवचेन कर सम्भावित विकल्पों पर चर्चा परमावश्यक है।

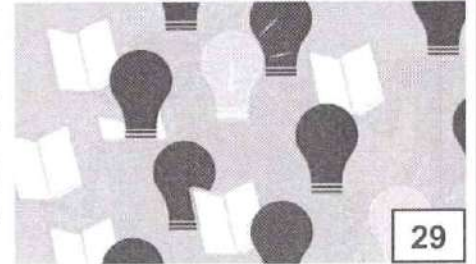
अनुक्रम

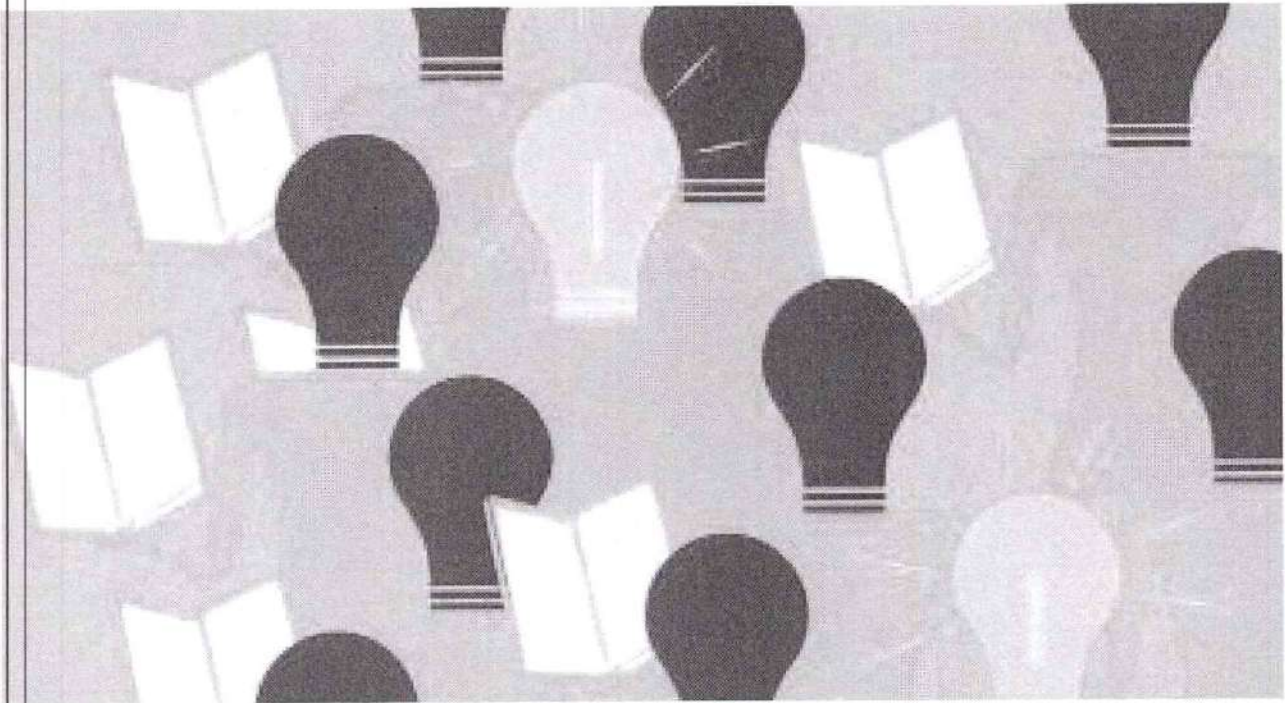
- | | |
|---|--------------------------|
| 3. सम्पादकीय | - डॉ. राजेन्द्र शर्मा |
| 4. शिक्षक शिक्षा की अवधारणा व लक्ष्य | - डॉ. यदु शर्मा |
| 6. शिक्षक शिक्षा में प्रवेश प्रक्रिया | - डॉ. सुमन बाला |
| 11. शिक्षक शिक्षा और राष्ट्रीय शिक्षा नीति 2020 ... | - डॉ. शान्तेष कुमार सिंह |
| 19. शिक्षा नीति के परिपेक्ष्य में शिक्षक शिक्षा | - डॉ. मनीष कुमार |
| 21. शिक्षक शिक्षा के समक्ष वर्तमान समस्याएँ | - श्रीमती भारती दशोरा |
| 23. शिक्षक शिक्षा और शिक्षक की भूमिका | - डॉ. राजीव कुमार सिंह |
| 25. शिक्षक शिक्षा की वर्तमान स्थिति - अपेक्षित परिवर्तन | - डॉ. बबीता सोलंकी |
| 27. अध्यापक शिक्षा में गुणात्मक सुधार की चुनौतियाँ... | - डॉ. मीनू अग्रवाल |
| 34. Challenges to Teacher Education in | - Rakesh Singh |
| 36. The Teacher is the backbone of the society - | Dr. Mukhtyar Singh |
| 38. Integrated Teacher Education Programme... | Prof. R. G. Kothari |
| 40. भारतीय संस्कृति में प्रश्नों की परम्परा | - डॉ. ईश्वर परिड़ा |

Regional Institutes of Education : An Overview of Six Decades of Excellence

□ Prof. P. C. Agarwal

Quality has many parameters. RIEs reflect it in all its endeavours. Apart from smooth conduction of the courses mentioned above, regular revision of syllabus as per NCTE Regulations is also undertaken. RIEs are working as nodal centres in the region for the furtherance of policies and programmes in the region. Faculty contributes to all NCERT programmes and activities such as curricular studies, reforms and developments, textual material development, exemplar problem books, lab manuals, supplementary material development, development of learning outcomes, assessment tools, techniques, alternative academic calendar and PRAGYATA guidelines during the COVID-19 pandemic.





Regional Institutes of Education : An Overview of Six Decades of Excellence



Prof. P. C. Agarwal

Principal
Regional Institute of
Education NCERT,
Bhubaneswar (Odisha)

Education was one of the most critical areas to be focused on and redefined as per our requirements after independence to realize national goals. Initially, the concentration was on higher education, and University Education Commission (1948-49) was set up in 1948 to sketch an overall roadmap for higher education. However, in the upcoming years, it was realized that the need was to overhaul the school education system. Therefore, a work plan was visualized in the form of Secondary Education Commission (SEC) in 1952. In 1953 SEC recommended the need to establish multipurpose schools

with a variety of diversified courses/programmes to suit the different abilities and cater to the students' varying interests, aptitudes, and talents. The plan was to increase enrolment in secondary schools and link education of this stage to the needs of the country as had been endorsed by CAME in 1954. Thus, the initiative to open multipurpose schools or escalate existing schools as per the new norms began.

Meanwhile, to develop a holistic view of education in the country, the National Council of Educational Research & Training (NCERT) was established in 1961. The Ministry of Education merged seven institutions established after independence; namely, Central Institute of Education (1947), the Central Bureau of Textbook Research (1954), the Central Bureau of Educational and Vocational Guidance (1954),

Directorate of Extension Programme for Secondary Education (1958) (erstwhile All India Council for Secondary Education, established in 1955), the National Institute of Basic Education (1956), the National Fundamental Education Centre (1956) and the National Institute of Audio-visual Education (1959) and thus, NCERT was formed and registered as a society under the Societies Registration Act (Act XXI of 1860) and started working as an autonomous body to assist and advise the Central and State Governments on policies and programmes for qualitative improvement in school education.

By the year 1961, the country realized the need for quality teaching resources to equip multipurpose schools. The Ministry of Education, Government of India, further decided to establish four Regional Colleges of Education in

Agarwal
माधव/PRINCIPAL
क्षेत्रीय शिक्षा संस्थान

Regional Institute of Education
भुवनेश्वर / Bhubaneswar 751005

विजयादशमी की हार्दिक शुभकामनाएँ

वर्ष : 14 • अंक : 3 • पृष्ठ : 44 • जयपुर

www.shaikshikmanthan.com



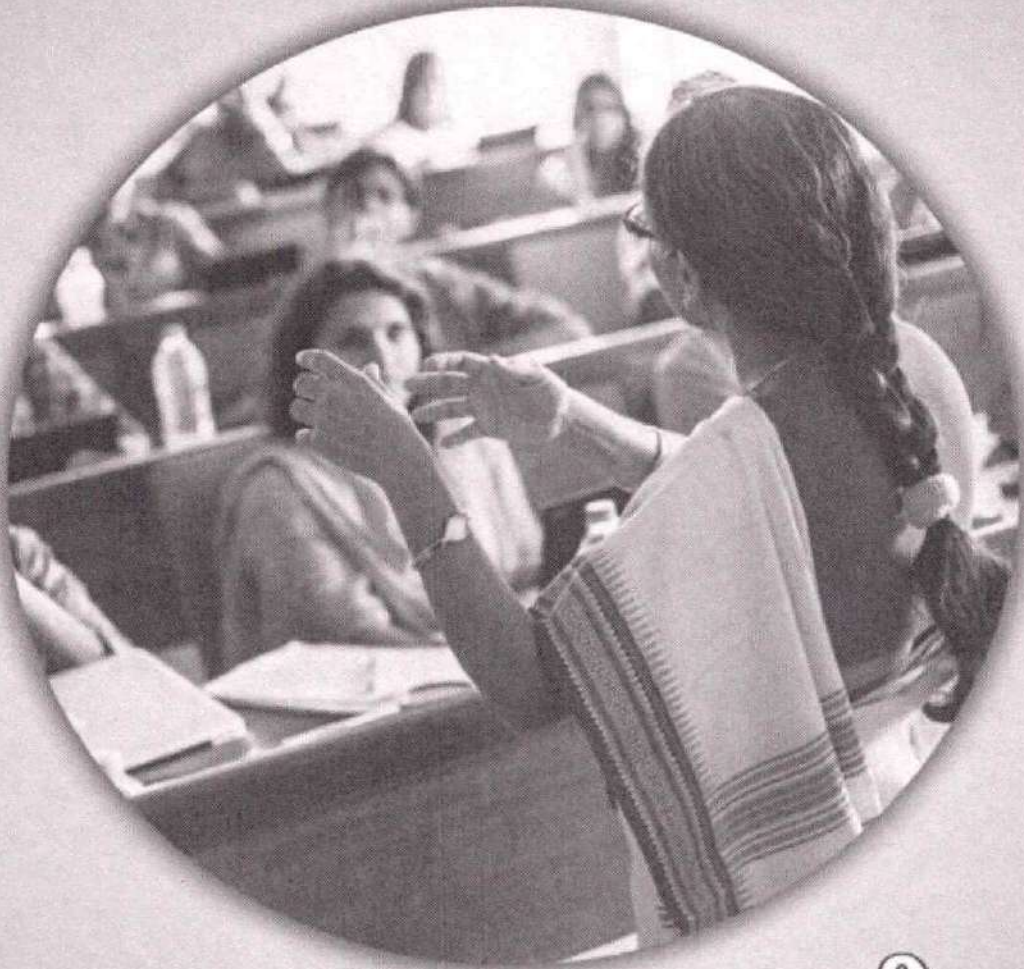
ISSN 2581- 4133

आश्विन, विक्रम संवत् 2078

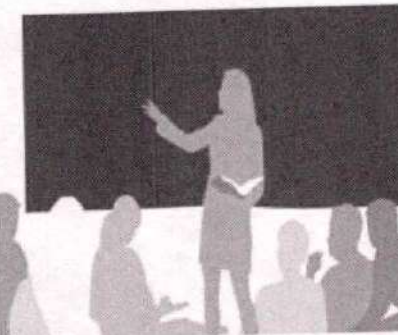
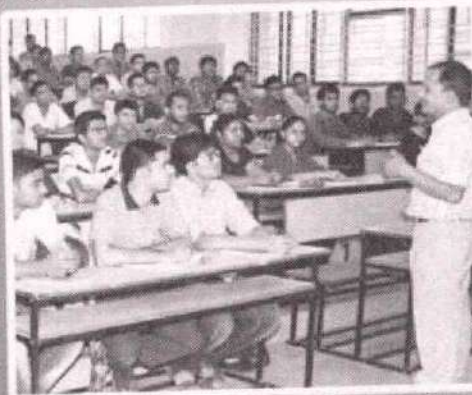
1 अक्टूबर 2021 • ₹ 25/-


शैक्षिक मंथन

शैक्षिक क्षेत्र की प्रतिनिधि पत्रिका



शिक्षक शिक्षा - एक समीक्षा



 प्राचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
751022

2021



International Level Double Blind Peer Reviewed, Refereed, Indexed Research Journal, ISSN(Print)-2250-253X, E-ISSN-2320-544X, Impact Factor-6.77(SJIF), AUGUST-2021, Vol-I, Issue-08

Month-AUGUST-2021

Vol- I

Issue- 08

Subject - EDUCATION

International Research Mirror
(International Level Double Blind
Peer Reviewed, Refereed, Indexed,
Multilingual, Interdisciplinary, Monthly
Research Journal)

ISSN (P) : 2250-253X

ISSN (E) : 2320-544X

Impact Factor : 6.77 (SJIF)

Effect of Smart Classroom on Academic Achievement of Primary School Students with Reading Difficulties

Dr. Anamika Lenka

Principal,
Jai Ma Tara B.Ed. College, Nadia, W.B.

ABSTRACT

"The study aimed to see the impact of smart classroom on the academic achievement and reading skills of students with reading difficulties. A sample of 120 primary school students was selected purposively Nadia District, West Bengal out of 120 students, 60 students were selected from the experimental group and the rest 60 students were selected for the control group. The researcher gave a 27 day intervention program to the student of the experimental group and measured the efficiency of the smart classrooms after the treatment. The findings of the present research revealed that the smart classroom system has a significant impact on the academic achievement as well as reading skills of the students."

6

International Research Mirror

Impact Factor : 6.77(SJIF)

Self Attested

Anamika Lenka
Principal
माध्यमिक शिक्षा संस्थान
Regional Institute of Education
Bhubaneswar-751022



Sustaining Learning Through Hybrid Pedagogy During Covid-19

Dr. Samir kumar lenka , Head, School of Education, Maharaja Sriram Chandra Bhanjadeo University, Mayurbhanj, Odisha, India samirlenka@gmail.com

Dr. Anamika Lenka, Principal, Joy Maa tara B Ed College, Nadia, West Bengal, India Email-lenkaanamika@gmail.com

ABSTRACT

The COVID-19 Pandemic has created the largest disruption of education systems at all levels of learning. The crisis is exacerbating pre-existing education disparities by reducing the opportunities for many of the most vulnerable children, youth and adults those living in poor or rural areas girls, refugees, person with disabilities and forcibly displaced persons to continue their learning. In order to mitigate the potentially devastating consequences of COVID-19 Pandemic, Governments and Stakeholders immediately took some policy responses which include Flipped classroom, Blended learning, Video-conferencing, e-learning, vast use of Google and You tube platforms. And in Odisha as most of the schools belong to rural areas, it has become a new challenge for the Government as well as the educators to make e-learning accessible for all. This emerging shift to technology based learning divided Odisha into two parts; one is literate Odisha and another is illiterate Odisha. Number of schemes and policies are of no work as there are students for whom getting internet access is a dream. Hence there is a need to bridge this gap by limiting online duration of learning in a sustainable way. The paper highlights Hybrid Pedagogy accessible to all in this COVID-19 outbreak. This gives us an opportunity to refine existing classroom for post pandemic situations.

Keywords: Sustaining learning, Hybrid Pedagogy and COVID-19.

INTRODUCTION

The COVID-19 pandemic also known as the Corona Virus pandemic is an ongoing global pandemic which was first identified in December 2019 in Wuhan, China (WHO, 2020). The World Health Organization declared the outbreak a Public Health Emergency of International concern on 30th January, 2020 and a Pandemic on 11th March, 2020. Since the COVID-19 pandemic has disrupted the normal life style of people across the globe, the virtual world has come to the rescue.

Education is a global common good and primary driver of progress across 17 SDGs as a bed rock of just equal, inclusive, peaceful societies. When education systems collapse,



ISSN Print: 2394-7500

ISSN Online: 2394-5869

Impact Factor: 8.4

IJAR 2021; 7(3): 99-102

www.allresearchjournal.com

Received: 11-01-2021

Accepted: 15-02-2021

Dr. Anamika Lenka

Principal, Joy Maa Tara B.Ed
College, Nadia, West Bengal,
India

Impact of teaching through simulated condition to modify behaviour among science stream pupil teachers

Dr. Anamika Lenka

Abstract

The purpose of the study is to find out the effectiveness of teaching through simulated teaching to modify behaviour among pupil teachers belonging to science discipline. A sample of 100 pupil teachers studying in the different B.Ed colleges affiliated to Kurukshetra University as selected by using random sampling method. As a tool Flander Interaction analysis Category (FIAC) were used. The lack of confidence in class of pupil teachers is removed of simulation teaching and students get full confidence of teaching in class room situations. The defects in present teaching process as well as content were removed under simulated conditions. The skill of lecturing in an appropriate manner was increased. The skill of writing on blackboard was neat as far as possible individually and appropriate use of space on blackboard was increased undoubtedly under simulated conditions. The effect of questioning skill of B. Ed pupil teacher was notable. The skill of narration and illustrations was increased in B.Ed. pupil teachers under simulated conditions.

Keywords: simulated condition, behaviour modification, pupil-teachers

Introduction

Teachers are the backbone of the country. Their contribution to the nation is just remarkable if they are using the appropriate method of teaching to modify the behaviour of the students. Teachers must be acquainted and informed about day to day development so that they must be able to use their advanced knowledge and skills in the class. Though the quality education highly depends upon the teachers, we have to prepare good teacher for our schools. Hence, we need a number of good teacher training colleges to produce quality teachers for schools. The important aspects of the education and training of teachers is the development of their teaching skills to make effective teachers.

In India, an old and traditional teaching practice programme has become a permanent feature and in present time that has totally failed and become ineffective. The student-teachers who come to training department to become an efficient teacher, as far as may be possible, but it is an open secret that instead of becoming a good teacher, he/she becomes maladjusted in the actual school situation.

Objectives of Study

1. To find out the effect of simulated conditions on modification of teaching behaviour.
2. To find the effect of simulated conditions on teaching behavior of science pupil teachers.

Hypotheses of Study

1. Simulated conditions will be more effective on modification of teaching behaviour than present system of B.Ed. pupil teachers.
2. The modification of behaviour of science teachers under simulated teaching process is superior than the process of present system.

Methods

In the present study the investigator used Flanders ten categories system of interaction analysis as a tool. In present Study the investigator used Percentage, Mean, S.D., F-test & t-test to analysis and interpretation of data.

Corresponding Author:

Dr. Anamika Lenka

Principal, Joy Maa Tara B.Ed
College, Nadia, West Bengal,
India

Anamika Lenka

Principal
Regional Institute of Education
Bhubaneswar



USING SIMULATED CONDITIONS TO MODIFY BEHAVIOUR AMONG PUPIL TEACHERS

Dr. Anamika Lenka

Principal, Joy Maa Tara B.Ed College, Nadia WB.

Abstract

The objectives of the study were to measure the effectiveness of simulated conditions on behavior modification of pupil teachers of social Study. For this purpose the investigator selected 100 pupil teachers from Govt. aided Colleges affiliated to Kurukshetra University, Haryana by using random cum purposive sampling method. As a tool FIACS were used. The collected data were process by applying suitable statistical techniques i.e. mean, S.D. 'F' test & t-test are used. The result of the study reveals that. The lack of confidence in class is removed by simulation teaching and students get full confidence of teaching in class room situations. The defects in present teaching process as well as content were removed under simulated conditions.

Keywords: Simulated Condition, Behaviour Modification, Pupil Teachers.

Introduction

The general belief is that pupil-teachers as compared to the students of other professional courses like Medicine, Engineering, etc. appear to be less intelligent and less confident. They also seem to be intellectually and academically poor in our country. It may be because of the fact that entry to the Engineering and Medical courses is difficult as compared to B. Ed. courses. Owing to an inadequate number of engineering and medical institution and comparatively large number of B. Ed. colleges (Gupta, 1972, Bhatnagar, 1979-80, Association of Indian Universities, 1981- 82). In Haryana region we have more than 150 B. Ed. Colleges but engineering college ratio is very small as compare to this number.

Objectives of Study

1. To find out the effect of simulated conditions in modification of teaching behavior.
2. To find out the effect of simulated conditions on teaching behaviour of social study.

Hypothesis of Study

1. Simulated conditions will be more effective in modification of teaching behaviour than present system of B.Ed. pupil teachers.
2. The effect of simulated conditions on modification of teaching behaviour of social studies teachers is better than present practice programme.

Methodology

In the present study investigator used flander's ten categories system of interaction analysis as a tool. In present study the investigator used Percentage, Mean, S.D., analysis and interpretation of data. As per need and nature of the study the investigator used experimental method. In the present study investigator consider population all the B.Ed. pupil teachers of kurukshetra University, Haryana. The present sample of study was random cum – purposive sample. 100 Social Study pupils teachers were taken from Government aided colleges for the study. Then 50 pupil teachers of social study made as control group and 50 social study teachers taken as experimental group to compare the results.



वंचित तथा सुविधा प्राप्त विद्यार्थियों की शैक्षिक आकांक्षा का तुलनात्मक अध्ययन

डॉ अनामिका लिंगा

प्रिंसिपल, जय मां तारा B-Ed कॉलेज, वेस्ट बंगाल

प्रस्तावना

मनुष्य वंशानुक्रम और वातावरण की संयुक्त संतति होता है। इन दोनों के आधार पर ही उसकी प्रतिक्रियाएं होती हैं। उसकी आकांक्षाएं और उपलब्धियां इसकी प्रतिक्रिया का अंग होती हैं। व्यक्ति का वातावरण समस्त बाह्य शक्तियों, प्रभावों और परिस्थितियों का सामूहिक रूप होता है। जिस व्यक्ति को अपनी विकास के लिए जितनी अधिक सुविधाएं प्राप्त होती हैं, हम मानते हैं कि उसका विकासात्मक वातावरण उतना ही अधिक सकारात्मक है।

हमारा संपूर्ण सामाजिक परिवेश ऐसा है जहां कहीं तो सुविधाओं का अतिरेक है और कहीं मूलभूत सुविधाओं का भी अभाव है। समाज का एक वर्ग सभी सुविधाओं से युक्त है, वहीं दूसरा वर्ग आवश्यक सुविधाओं से भी वंचित है। सुविधा संपन्नता और विपन्नता का यही अंतर शिक्षा जगत में भी दिखाई देता है। वस्तुतः सुविधाओं का यह दोहरापन विद्यार्थियों की शैक्षिक आकांक्षाओं के प्रति दयनीय भाव विद्यार्थी में विकसित करते हैं।

अध्ययन की आवश्यकता

भारत एक प्रजातांत्रिक देश है जहां सभी को समानता तथा भेद रहित सामाजिक व्यवस्था का संवैधानिक अधिकार प्राप्त है परंतु सुविधाओं के आवंटन में असमानता स्वाधीनता के लगभग सात दशक बीत जाने के बाद भी प्रत्येक क्षेत्र में दिखाई पड़ती है। शिक्षा के क्षेत्र में यह असमानता अधिक गंभीर परिणामों का सूत्रपात करती है, क्योंकि शिक्षा का क्षेत्र वह क्षेत्र है जो सामाजिक पुनर्निर्माण और सुदृढ़ता के लिए आधार भूमि तैयार करता है। व्यक्तित्व के निर्माण, सम्यक व्यक्तित्व के निर्माण, उपलब्धियों, आकांक्षाओं, संप्रत्ययों आदि का निर्माण शिक्षा के द्वारा ही हो पाता है। अति आवश्यक हो जाता है कि बालक को अपने विकास के लिए शैक्षिक सुविधाएं मिलें। परंतु सामाजिक व्यवस्था में लगे घुन ने उससे इस कदर खोखला कर दिया है कि विद्यार्थियों को प्राप्त सुविधाओं में समुंद्र और

ओस की बूंद सा अंतर स्पष्ट दिखाई देने लगा है। निश्चित रूप से यह एक भयावह स्थिति है और सामाजिक पतन और विविधीकरण का प्रारंभिक संकेत भी। सुविधाओं का असंतुलन जहां एक ओर जिनमें क्षमताएं हैं उनके लिए विकास की चाह का मरुस्थल है वहीं दूसरी ओर सुविधा संपन्न और क्षमता विपन्ना विद्यार्थियों के हितार्थ में अपव्यय है।

प्रस्तुत अध्ययन से पूर्व भी आईजीनिक और कुक्सन(1970), दबे और दबे (1971), बालमाट और नरेला नरोला (1973), जैन एवं शाह (1974), नायर (1978), सिंह (1979), रिडेल (1980), प्रिंस (1981), तथा वर्मा एवं शर्मा (1988) इत्यादि ने शैक्षिक आकांक्षा का पारिवारिक पृष्ठभूमि के संदर्भ में अध्ययन किया और बताया कि पारिवारिक पृष्ठभूमि व्यक्ति के लक्ष्य, आकांक्षा तथा उपलब्धि सभी को प्रभावित करती है।

यह आवश्यक होता है कि हम यह जानने का प्रयास करें कि सुविधा पोषित और सुविधा वंचित विद्यार्थियों की शैक्षिक आकांक्षाओं पर सुविधाओं का क्या प्रभाव पड़ता है, ताकि उन नकारात्मक प्रभावों को जो कि विद्यार्थी के शैक्षिक विकास को ऋणआत्मक रूप से प्रभावित करते हैं को जानकर उनके लिए निदानात्मक उपाय सुझाए जा सकें। ऐसा करके ही हम शिक्षा को एक समेकित विकासात्मक प्रक्रिया के रूप में स्थापित कर सकते हैं।

उद्देश्य

प्रस्तुत अध्ययन के प्रमुख उद्देश्य निम्न वत हैं—

- 1- वंचित तथा सुविधा प्राप्त छात्र एवं छात्राओं की शैक्षिक आकांक्षा का तुलनात्मक अध्ययन करना
- 2- वंचित तथा सुविधा प्राप्त छात्रों की शैक्षिक आकांक्षा का तुलनात्मक अध्ययन करना
- 3- वंचित तथा सुविधा प्राप्त छात्राओं की शैक्षिक आकांक्षा का तुलनात्मक अध्ययन करना

Research Analysis and Evaluation

Impact Factor-6.315(SJIF) RNI-RAJBIL-2009/30097

Anamika Linga



ATTITUDE OF TEACHERS TOWARDS EDUCATIONAL INNOVATIONS

Dr. Anamika Lenka

Principal, Joy Ma Tara B. Ed College, Nadia, West Bengal, India.

The world 'innovation', according to the Oxford Dictionary means the introduction of novelist, the alteration of what is established a novel practice and the change in established method. Generally, in the field of education to be creative is to create something new, which markedly deviates from traditional practices which have been followed since a long time to impart education at different levels. Schools, being miniature society, participate in educational reforms and social transformation. The problems of the society are essentially the progress of the school and as such schools are required to teach new skills, develop new insights and approaches to the solution of the social problem which a nation faces, in order to develop better adjustment ability in the future citizen of the nation so that they may satisfactorily meet the challenges of a developing society.

NEED AND IMPORTANCE OF THE SOCIETY:

Introduction of innovations is very essential in our traditional system of instruction to meet the challenges of the present day society. It has been unfortunate in the past that classroom teachers were not involved in innovations. The result of non involvement of classroom teachers had been the failure of all innovations, which we introduce in our educational system. So far as the success of any innovations concerned, the classroom teachers should be involved.

They should actively participate to make the introduction of an innovation a success. The attitude of teachers or the Headmasters of the school towards innovations determines the acceptance or rejection. If the teachers and the Head of Institution develop a positive attitude toward innovation, it is very easy to introduce innovations in educational institutions. The teachers are the architects of the educational system. Hence in this study an attempt has been made to find out the attitude of teachers towards educational innovations.

OBJECTIVES OF THE STUDY:

The study has the following objectives:

- To find out the attitude of teacher towards educational innovations.
- To find out whether there are any significant differences between male and female teachers in their attitude toward educational innovations.
- To find out whether there are significant differences between teachers working in private and government schools in their attitude towards educational innovation.
- To find out whether are significant differences between teachers working in rural and urban schools in their attitude towards educational innovations.
- To find out whether there are significant differences between teachers teaching various subjects in their attitude towards educational innovations.

METHOD OF STUDY:

The Normative Survey Method has been used. The present study is aimed at finding out the effect of the independent variables, namely gender type of school, locality of the school and subject taught by the teachers on dependant variable the attitude towards educational innovations of the higher secondary school teachers.

TOOLS USED:

In the present study O.S. Rathore's Attitude Towards Educational Innovation scale was used.

SAMPLE OF THE STUDY:

Attitude Scale Towards Educational Innovations has been administered to a random sample of 150 teachers working in a higher secondary schools at Cuttack district in Odisha.

STATISTICAL ANALYSIS:

The data has been analysed with the help of Descriptive Analysis and Differential Analysis.

ANALYSIS AND DATA INTERPRETATION:

The Mean score of attitude towards educational innovations is found to be 75.28. The Mean score is higher than the mid score of 36. So, it can be concluded that the attitude of teachers towards educational innovations is high.

The 't' value of the Mean attitude towards educational innovations scores of male and female teachers is found to be 0.81, which is not significant at 0.05 level (Table 1). It is concluded that the difference between the Mean attitude towards educational innovations scores of male and female teachers is not significant.

Table 1: Comparison of the Mean attitudes towards educational innovation scores of male and female teachers

Sub-Sample	Number	Mean	Standard deviation	't' value	Level of Significance
Male	75	74.61	11.35	0.81	Not Significant at 0.05 level
Female	75	75.95	8.38		

The 't' value of the Mean attitude towards educational innovations scores of teachers working in government and rural schools is found to be 0.15 which is not significant at 0.05 level (Table 2). It is concluded that the difference between the Mean attitude towards educational innovations score of teachers working in government and private schools is not significant.

Table 2: Comparison of the Mean attitude towards educational innovations scores of teachers working in government and private schools

Sub-Sample	Number	Mean	Standard deviation	't' value	Level of Significance at 0.05 level
Government	95	75.19	10.00	0.15	Not Significant
Private	55	75.43	9.99		

The 't' value of the Mean attitude towards educational innovations scores of teachers working in urban and rural schools is found to be 1.71, which is not significant at 0.05 level (Table 3). It is concluded that the difference between the Mean attitude towards educational innovations scores of teachers working in urban and rural school is not significant.

Table 3: Comparison of the Mean attitude towards innovations in education scores of teachers working in urban and rural schools

Sub-Sample	Number	Mean	Standard deviation	't' value	Level of Significance at 0.05 level
Rural	59	73.56	9.99	1.71	Not Significant
Urban	91	76.39	9.84		

It is clear from table 4 for that the 'F' ratio is not significant at 0.05 levels. It is concluded that the teachers teaching in different subjects do not differ significantly in their attitude towards educational innovations.

Table 4: 'F' Ratio for subject thought and attitude towards innovation in education

Source	D.F.	Sum of Squares	Mean Squares	'F' Ratio
Between groups	2	101.86	50.93	0.51
Within groups	147	14702.37	100.01	
Total	149	14804.24		

2021

ASSESSMENT OF TRAINEE TEACHER'S ATTITUDE TOWARDSTEACHING

Dr ANAMIKA LENKAPrincipal, Joy Ma Tara B. Ed College
Nadia, West Bengal, Pin-741153, India.**Dr SAMIR KUMAR LENKA**Head, School of Education, Maharaja Sriram Chandra Bhanjdeo Uninversity,
Baripada Mayurbhanja, Odisha - 757003, India.**Abstract**

Teachers' proficiency depends on the attitude he/she possesses for the profession. The positive attitude helps teacher to develop a conducive learner friendly environment in the classroom. This also casts a fruitful effect on learning of the students. Attitude being a social construct is influenced by many factors like gender, social strata, age, stream of education and previous experience of the job. The present study aimed to assess the attitude of prospective teacher trainees towards the teaching profession. Hence, the researcher selected 76 samples from IASE, Cuttack, Odisha following Purposive sampling method and the teacher trainees' attitude was assessed by using the attitude scale developed by Ahluwalia, S.P (2007). The finding of the study reveals that the relationship between the attitudes towards teaching and performance in B.Ed. Entrance examination was more corrected and the study proved that there is a bond between their attitude and examination performance as well as acquiring knowledge and skills.

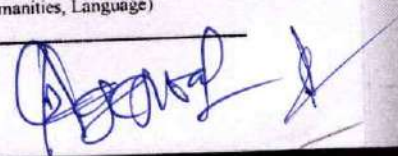
Introduction

Education gives us comfortable and dignified life. It is responsible for the holistic development of the individual and society. Education means to lead out hidden talent of a child. It is an activity which helps students in attaining needed information, ability, attitude, perception. The

quality of a nation depends upon the quality of its citizens. The quality of the citizens depends upon the quality of education system and the quality of the education depends upon the combined efforts of planners, educationalists and administration, however, the most significant factor is the quality of the teachers. It means excellent and efficient teachers can change the fate of the nation.

Education plays a key role in the development of a nation. World over has realized that no country can progress without the qualitative development of its human capital. Education plays a key role in the development of human resources. (The National Curriculum framework for School Education, NCFSE - 2000) published by NCERT, in line with the broad parameters of the National Policy on Education (NPE-1986, 1992) emphasized mainly on the improvement of quality of education. One of the factors identified as contributing to the improvement of quality of education is competent and dedicated teachers.

Education is imparted by teachers. If the teacher is capable, energetic, mentally healthy and having positive attitude, it is well and good for the school. The teacher's role and responsibilities have found extension outside the classroom. The implementation of educational policies, transaction of curricula and spreading awareness are the main areas which keep teacher in forefront.





ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 8.4
IJAR 2021; 7(8): 347-349
www.allresearchjournal.com
Received: 17-06-2021
Accepted: 19-07-2021

Dr. SK Lenka
Head, School of Education
Maharaja Sriram Chandra
Bhanjadesi University
Baripada, Mayurbhanj,
Odisha, India

Dr. Anamika Lenka
Principal, Joy Matara B. Ed
College Nadia, West Bengal,
India

A study of self- concept in relation to ego-strength of partially sighted and blind students

Dr. SK Lenka and Dr. Anamika Lenka

Abstract

The Objective of the study was to measure the relationship between the self-concept and ego strength of blind and partially sighted students. For this purpose, the investigator selected 40 Blind Students and 40 partially sighted students from Lucknow (UP). Two kinds of tools, namely self-concept scale (Ahluwalia) and ego-strength scale (Hasan) were used. The collected data were processed by applying suitable statistical techniques 'r' and 't' test. 'r' used to find out the relationship between self-concept and ego strength and 't' test used to measure the differences between self-concept and ego-strength of blind and partially sighted students. The result of the study reveals that the relationship between self-concept and ego strength was positive and there was significant difference among the Blind Students and partially sighted students in relation to their self-concept and ego-strength.

Keywords: self-concept, relation, ego strength, partially sighted students, suitable statistical techniques

Introduction

Students with special needs may have a feeling of insecurity because of their various psychosocial and physical factors including disability such as blindness, hearing impairment and/or any type of disability. Review of literatures reveal that number of psycho-social factors influence health concept level of school students e.g. behavior, School status, anxiety, population etc. Visually impairment may affect psycho-social dimensions including ego strength and self-concept with reference to students with partially sighted and blind. It would be interesting to find out whether the partially sighted and blind students differ significantly in terms of their ego-strength and self-concept level or not. Such a study will be helpful in better understanding of students with blind and partially sighted. Keeping this fact in mind, the investigator conducts the present study.

Objectives of the study

The main objectives of the study were

1. To study the relation of self-concept with the ego- strength of blind and partially sighted students.
2. To study the difference between self-concept of partially sighted and Blind Students.
3. To study the difference between ego- strength of partially sighted and Blind Students.
4. To study the self-concept and ego-strength of Blind Students.
5. To study the self-concept with ego -strength of partially sighted students.

Hypothesis

Keeping in view the above objectives the investigator has formulated the following hypothesis for a study

1. There is a positive relationship between self-concept and ego- strength of students with blind and partially sighted students.
2. Blind students have lower self-concept than partially sighted students.
3. Blind Students have lower ego- strength than partially sighted students.
4. There is a significant difference between the self-concept of partially sighted and Blind Students.
5. There is a significant difference between the ego-strength of partially sighted and blind students.

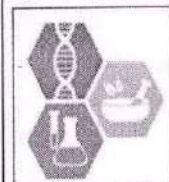
Corresponding Author:
Dr. SK Lenka
Head, School of Education
Maharaja Sriram Chandra
Bhanjadesi University
Baripada, Mayurbhanj,
Odisha, India

Awareness and Opinion of Elementary Teachers Towards Constitutional Values

Dr. Samir Kumar Lenka • Dr. Anamika Lenka,

Abstract

Human beings, though they belong to animal kingdom, are qualitatively distinct from animals due to the possession of valuation character. This feature of valuation separates humans from rest of the species. Value not only judges the human actions but also binds the individual too collectively. Every social formation, however primitive it may be, fosters its own value system. This value system governs human activities and acts as the frame of reference to activities of its members. Family, school, communities, religion, political institutions are the sources of values. The constitution of India provides some values such as- co-operation, tolerance, justice, liberty, equality, fraternity, unity in diversity, sacrifice, pluralism, forgiveness, empathy, patriotism, democratic outlook etc. Awareness of Value Education is very much necessary for children at grassroots level. These values are helping them to become a democratic citizen of India. The National Curriculum Framework (NCF, 2005), strongly advocates values like cooperation, respect for human rights, tolerance, justice, responsible citizenship, diversity, reverence towards democracy and peaceful conflict resolution. Teachers are the ultimate instruments of change. Kesici (2008) also suggests that a democratic teacher should hold democratic values in high esteem and adopt appropriate teaching methods in accordance with those values. Unless teachers are aware of the Constitutional Values, they cannot inculcate values awareness among the students. Thus, the present study is entitled as "Awareness and opinion of Elementary teachers towards Constitutional values" is an attempt to explore the awareness and opinion of elementary teacher regarding constitutional values.



E-ISSN: 2278-4136

P-ISSN: 2349-3234

www.phytojournal.com

JPP 2021; 10(4): 103-110

Received: 10-05-2021

Accepted: 16-06-2021

Priyamvada

Department of Education in
Science and Mathematics
(DESM) Regional Institute of
Education, Bhubaneswar,
Odisha, India

Preeti Mishra

Department of Education in
Science and Mathematics
(DESM) Regional Institute of
Education, Bhubaneswar,
Odisha, India

Anita Sha

Department of Education in
Science and Mathematics
(DESM) Regional Institute of
Education, Bhubaneswar,
Odisha, India

Animesh Kumar Mohapatra

Department of Education in
Science and Mathematics
(DESM) Regional Institute of
Education, Bhubaneswar,
Odisha, India

Corresponding Author:

Animesh Kumar Mohapatra

Department of Education in
Science and Mathematics
(DESM) Regional Institute of
Education, Bhubaneswar,
Odisha, India

Evaluation of antidiabetic and antioxidant activities of *Achyranthes aspera* leaf extracts: An *in vitro* study

Priyamvada, Preeti Mishra, Anita Sha and Animesh Kumar Mohapatra

Abstract

The present investigation aimed to screen the phytochemicals in the methanolic and petroleum ether leaf extracts of *Achyranthes aspera* and evaluate their antidiabetic and antioxidant activities by using an *in vitro* model. Phytochemical screening of the extracts revealed the presence of alkaloids, tannins, saponins, flavonoids, terpenoids, phenols and steroids. The results of α -amylase and α -glucosidase enzymes inhibition activities were found in a dose-dependent manner. The strongest activity was showed by methanolic fraction (55.0 \pm 0.50% for α -amylase and 53.06 \pm 0.23% for α -glucosidase inhibition at 160 μ g/ml) compared to petroleum ether extract (51.87 \pm 0.00% for α -amylase and 46.0 \pm 0.22% for α -glucosidase inhibition at 160 μ g/ml). The plant extracts were also examined for its antioxidant activities by using DPPH scavenging method. The DPPH assay exhibited significant antioxidant activity of isolated phytochemical compounds. The DPPH radical scavenging activity of the methanolic extract (68 \pm 0.44% at 250 μ g/ml) was higher than that of petroleum ether extract (63.06 \pm 0.56% at 250 μ g/ml). Thus, in conclusion this study can recommend this plant due to the presence of antioxidant components which have potential prospective for the control of diabetes and the related condition of oxidative stress. This knowledge will be helpful in exploring more potent antidiabetic principle from the natural resources for the clinical development of antidiabetic therapeutics.

Keywords: Diabetes mellitus, antidiabetic, antioxidant, hyperglycemia, postprandial blood glucose, insulin, α -amylase, α -glucosidase

Introduction

Diabetes mellitus is a leading cause of morbidity and mortality worldwide and a major economic burden. It is a chronic metabolic disorder manifested by hyperglycemia in which blood sugar levels are elevated either because of the insufficient production of insulin from the β -cells of pancreas or inactivity of body cells to respond the insulin properly [1]. About 90% of all cases of diabetes in developed and developing countries are non-insulin-dependent diabetes mellitus, also known as type-2 diabetes (T2D), or adult-onset diabetes [2, 3]. Persons with diabetes have lipid disorders and an increased risk of coronary heart disease, peripheral vascular disease and cerebrovascular disease.

In the process of digestion of food in the alimentary canal, α -amylase catalyses the hydrolysis of α -1,4-glycosidic linkages of starch and glycogen and α -glucosidase further breaks down the disaccharides into simple sugars making it available for intestinal absorption. The α -glucosidase enzyme catalyzes the cleavage of glycosidic bond and subsequently liberates glucose from the non-reducing end of the oligosaccharide chain [4]. The postprandial blood glucose levels have been found to play an important role in the onset and developing complications of T2D [5]. The postprandial rise in blood glucose level is associated with the activity of α -amylase and α -glucosidase enzymes in the small intestine [6]. The reduction of the activities of these two enzymes could play a role in managing postprandial hyperglycemia by slowing down the digestion of starch and extending intestinal carbohydrate holding time. This would result in decrease in the rate of glucose absorption and a subsequent reduction in the rate of increase of postprandial blood glucose. This could be a promising therapeutic strategy for the control of T2D, and forms the basis of many current clinical antidiabetic agents [7-9].

In diabetes, chronic hyperglycemia is associated with dyslipidemia, increased oxidative stress and consequently an alteration within the body's antioxidant defense system [10]. There is increasing proof that complications associated with diabetes are related to oxidative stress induced by the generation of free radicals. The antioxidant defense system protects the cells against free radicals. Once formation of free radicals overtakes the antioxidant defense system, the free radicals begin attacking the cells leading to several physiological disorders including diabetes.



Impact of ICT Integrated Pedagogy on Children's Comprehension and Learning Outcomes in Science at Upper Primary Level

Deepshikha¹, Ramakant Mohalik¹ and Animesh Kumar Mohapatra^{1*}

¹Department of Education in Science and Mathematics and Department of Education, Regional Institute of Education (NCERT), Bhubaneswar -751022, Odisha, India.

Authors' contributions

This work was carried out in collaboration between all authors. Author AKM designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author RM managed the analyses of the study. Author Deepshikha managed the literature searches. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJESS/2021/v15i130367

Editor(s):

(1) Dr. M. Camino Escolar-Llamazares, University of Burgos, Spain.

Reviewers:

(1) Aravind B. R., Vellore Institute of Technology, India.

(2) Ghaouar Nesrine, Badji Mokhtar Annaba University, Algeria.

(3) Indah Suciati, Alkhairaat University, Indonesia.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/65097>

Original Research Article

Received 29 November 2020

Accepted 01 February 2021

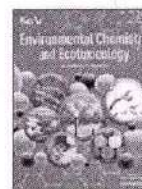
Published 17 February 2021

ABSTRACT

This study investigated the impact of ICT integrated pedagogy on learning outcomes in science of upper primary students. A quasi-experimental (Pre-tests and post-tests with control group) research design was adopted to conduct the study. One hundred and twenty five class VIII children were the participants. The experimental group was taught with the help of ICT integrated pedagogy whereas the control group was taught by traditional chalk and talk pedagogy. The data were analyzed using descriptive and inferential statistics. The results indicated a statistically significant difference in comprehension and learning outcomes of a science topic i.e. Cell: Structure and Function of experimental group and control groups. Children of the experimental group had better learning outcomes in science than control groups. This trend was also reflected in personal interviews. Therefore, it is suggested that ICT integrated pedagogy ought to be employed in the teaching of science at the upper primary level to enhance conceptual understanding and learning outcomes in the subject.

*Corresponding author: Email: akmncert@gmail.com;


Regional Institute of Education
Bhubaneswar - 751022



Environmentally relevant concentrations of Cadmium impair morpho-physiological development and metamorphosis in *Polypedates maculatus* (Anura, Rhacophoridae) tadpoles

Srikant Ojha, Anirban Roy^{1,*}, Animesh Kr. Mohapatra

Department of Education in Science and Mathematics (DESM), Regional Institute of Education (NCERT), Bhubaneswar 751022, Odisha, India

ARTICLE INFO

Article history:

Received 1 October 2020

Received in revised form 24 March 2021

Accepted 25 March 2021

Available online 31 March 2021

Keyword:

Cadmium

LC₅₀

Metamorphosis

Polypedates maculatus

Toxicity

Tumours

ABSTRACT

Cadmium (Cd) poisoning has been globally reported causing detrimental health issues with severe toxic effects on certain physiological systems. Here the effects of different concentrations of Cadmium were assessed on the metamorphosis and development of common Indian tree frogs (*Polypedates maculatus*, Gray 1830). The tadpoles were exposed to environmentally relevant concentrations (up to 0.7 mg/l) of Cd in dechlorinated water from the larval stage to adulthood. Survival, growth traits (body length and body mass), external deformities and movement were some of the morpho-physiological characters compared between control and experimental samples. Followed by the determination of acute toxicity (median lethal concentration–LC₅₀– after 24 h (5.603 mg/l) and 48 h (4.811 mg/l) of exposure), impacts associated with chronic toxicity of Cd to the tadpoles were inspected. The study showed multiple physiological deformities in the tadpoles chronically exposed to 0.5 and 0.7 mg/l Cd that included morphological malformations, pale skin colour, insipid motility, delayed metamorphosis and even high mortality. In addition to that, the tadpoles treated with 0.5 and 0.7 mg/l Cd showed significantly lesser growth traits than the controls over the study period. The paper aims to contribute in increasing ecotoxicological knowledge of an anuran species from which there is not much information of this type. Given the wide geographical distribution of the study species, it can serve as a bio-indicator of cadmium contamination, considering its applicability across a large swath of aquatic ecosystems in the Indian subcontinent.

1. Introduction

Human activities leading to the accumulation of heavy metals in the ecological habitats is causing an unprecedented decline in the global population of aquatic organisms at an alarming rate [1,2]. Among all aquatic organisms, amphibians have shown a high vulnerability to exposure to heavy metals [3,4].

Amphibians possess permeable skins, free of epidermal outgrowths, and shell less (non-amniotic) eggs, thus being directly exposed to external pollutants present in their habitats [5–7]. Behavioral studies with tadpoles suggest that they chiefly consume detritus, periphyton and soft leaves, and are often associated with the benthic habitat from which they tend to accumulate metals in their bodies [8,9]. Several toxicological studies have reported the lethal impacts of heavy metals on amphibians, cadmium toxicity being

one of them. James et al. [10] reported that cadmium contamination can cause high mortality and delayed metamorphosis in two anurans, *Bufo americanus* and *Rana sphenoccephala*. Chronic exposure of cadmium caused disruption in the activities of adrenal glands in an urodelan *Triturus carnifex* [11]. In a similar study by Patar et al. [12], it was concluded that cadmium toxicity in water can affect the life history traits and cause DNA damage in *Rana limnocharis*. In a recent study, it was inferred that cadmium accumulation in *Xenopus laevis* is highest in kidneys followed by sex organs and muscles, thus indicating physiological stress in affected individuals [13]. In another study, it was observed that cadmium exposure disturbed the internal microbial community in *Rana chensinensis* [14].

Cadmium (Cd) is one of the PBTs (persistent, bioaccumulative and toxic) chemicals recognized as primary toxicant, found at low concentrations in natural water [15]. Anthropogenic activities like lead mining and

* Corresponding author.

E-mail addresses: anirbanroy247@gmail.com, anirban.roy@atree.org (A. Roy).

¹ Present Address: Ashoka Trust for Research in Ecology and the Environment, PO Royal Enclave, Srirampura, Jakkur, Bengaluru- 560,064, India.



Production and hosting by Elsevier on behalf of KeAi

Agarwal
Regional Institute of Education
Bhubaneswar

EFFECT OF INNOVATIVE USE OF TECHNOLOGY ON CLASS PERFORMANCE OF STUDENTS

Ms. Vandana Sharma

Rose 502, Omaxe Green Valley Faridabad.

Abstract

The most important tool of effective teaching learning process is teaching techniques. The use of innovation and digital equipment in the teaching processes has made learning process very simple, easy and student friendly. Digital innovation has revolutionized the instructional strategies for a sustainable development. Student teachers of today will become qualified teachers tomorrow and the demand for present time is that they should be trained with not only traditional learning methods but also trained them with new digital instructional techniques. Explain the differences between traditional learning methods and innovative techniques and bring awareness of new technique is the aim of our study. The purpose of this exercise is to invigilate the outcomes of Digital instructional strategies on the performance of the teacher's students. This experiment was conducted on teaching subject mathematics of class 7th student of a well-occupied govt. school. A sample of 50 students was selected randomly out of 100 students of class 7th in a school. Two groups of 25 students each were made. Pre-test was given to both the groups and the results were recorded. One group was taken as a control group, which was taught the teacher who used conventional method of teaching and the other group was experimental group taught by innovative digital teaching techniques, a post-test was conducted.

Keywords: teaching techniques, teaching learning process, experimental group, pre-test, post test.

"The art of teaching is the art of assisting discovery"—Mark Van Doren

Introduction:

Today's Society is Information Centered Society and the Information and Communication Revolution combined all the people of the world together. This change on the world stage has meant the educationists need to reorganize the entire education process and place the innovation in education. Before the advent of the digital age the teachers were dependent on books and libraries only for reading and teaching. But in current time Technical development has begun a new age of information revolution and education dissemination. Through pressing a button you can gain knowledge about anything, in such a way to calm the curiosity of the children and to make them aware of the new dimension of knowledge is the biggest challenge for today's teachers

Need of Study

Today in most of the school's, the classroom teaching is not limited to Chalk -n- Talk methods. Here the emphasis is given to the interaction between the teacher and students. With the use of digital technology, hard-to-hard subject matter can be explained to students in a simple and interesting form. The innovative techniques included educational videos; power point presentations, movie screening, online lecture, e learning and online training are being included in classroom teaching. Twentieth century is recognizing by revolution in communication technologies. The advancement of information technology change entire teaching learning process and its affected students as well as teacher too. In

today's time, professional competitiveness of teachers is increasing continuously, all the school wants skilled teachers and because of the increasing responsibilities of the teachers in the changing environment getting a good job opportunity is become difficult that's why knowledge of the innovative digital instructional strategy of student teachers is essential for their personal and professional growth.

Some Innovative Digital Instructional Strategies and Their Effect of Students Learning Process

- **Educational Videos** Use of educational videos during classroom has improved engagement level of students. Visual content enhance memory and students ability to retain new information. Relevant videos keep student more alert, motivated and focused on particular topic.
- **Mobile Learning:** Mobile learning and BYOD are becoming popular in digital classroom. It enable students to engage with their Multiple device like Tablet, Laptops, smart phones expand the boundaries of learning own comfort.
- **E-Books and Digital Content:** E-Books and Digital Content are enormous for teachers. They are cheaper than the text books and can be updated regularly to provide updated content.

[Signature]
[Signature]
प्रचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022

International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2022; 9(1): 88-93
© 2022 IJPESH
www.kheljournal.com
Received: 09-11-2021
Accepted: 11-12-2021

Sharmin Akhtar
ICCR Research Scholar,
Department of Sports Science,
Punjab University Patiala,
Punjab, India

Dibendu Kr. Bej
Faculty, Department of Physical
Education, Army Public School,
Barrackpore Cantonment, West
Bengal, India

Relationship between kinematic parameters of standing throw and ball velocity of female handball players

Sharmin Akhtar and Dibendu Kr. Bej

DOI: <https://doi.org/10.22271/kheljournal.2022.v9.i1b.2344>

Abstract

Purpose: The standing throw is the most applied throwing technique in team handball (Wagner *et al.*, 2008); therefore, the purpose of our study was: to establish the relationships between kinematic parameters and ball velocity at release (shooting performance), a key performance factor.

Methods: Overall, 10 junior female state level (west Bengal) players from the Guskara College handball coaching camp were analyzed by using two standard camcorders. Ball velocity was assessed in standing throw (St) from 7 m penalty spot. Kinovea 0.8.27 motion analysis software was used to access the kinematic data. IBM SPSS Statistics 25 was used for statistical calculation. Pearson correlation coefficient was used to determine the correlation between variables. The level of Significance was set at $p < 0.05$.

Results: A high degree linear positive association has been found in stride length ($r = 0.665^*$), relative Centre of Gravity height at ball release ($r = 0.701^*$), angle of knee joint of the front foot ($r = 0.655^*$), and the hip angle at ball release ($r = 0.714^*$) with the initial ball velocity of standing throw. Whereas a negative association has been observed in the following parameters i.e., ball holding duration, the relative height of the ball at release, and Angle of wrist joint at ball release. Elite level junior female handball players show an average ball velocity i.e., 12.75 m/s with a flexed hip joint where the observed mean hip angle was 143.4° . The relative C of G height (mean 94.02 ± 5.59 cm) from the ground at ball release has a great impact on initial ball velocity that ultimately results in throwing performance in handball. Due to the high release point, a negative association was found with throwing performance. For greater ball speed an athlete requires a hyperextended wrist angle with a moderate ball holding time, prior to releasing too much swing of ball throwing arm or too less swing leads negatively to the throwing performance.

Conclusions: The initial ball velocity was the most important in handball shooting performance in which players need to be using the best angles during the performance, particularly the elbow, hip, knee, and wrist joint angle. On the other hand, the body's C of G height at release, stride length, and maximum release height of the ball should have a positive impact and association to achieve the best result from the game.

Keywords: Biomechanics, kinematic analysis, ball velocity, throwing accuracy

Introduction

In Olympic Games, team handball is played at a professional level between several countries. Recently, handball has received increased attention in research studies, especially in biomechanics (Plummer, H. A.; Oliver, G.D. 2017) [9]. In order to determine the essential processes for developing handball players, kinematic factors contribute to the ball's velocity. Between the top and lesser performance levels, Wagner, Buchecker, Von Duvillard, and Muller (2010) [22] observed a substantial difference in ball velocity, body height, and weight. Men's field handball was first presented at the 1936 Summer Olympic Games in Berlin, but it was quickly abandoned. Field handball was a showcase sport at the 1952 Olympic games. Men's (indoor) handball was inaugurated in the 1972 Summer Olympics in Munich, Germany. At the 1976 Summer Olympic Games in Montreal, women's handball was presented for the first time.

"Biomechanics measurement allows for precise, quantifiable examination of technical features, which then becomes a benchmark of a training program and seems to be a factor in effective training design, particularly if it concerns to detect the degree of performance expertise and assessing it as part of an athlete's personal growth process, as well as adopting

Corresponding Author:
Sharmin Akhtar
ICCR Research Scholar,
Department of Sports Science,
Punjab University Patiala,
Punjab, India

25.08/22

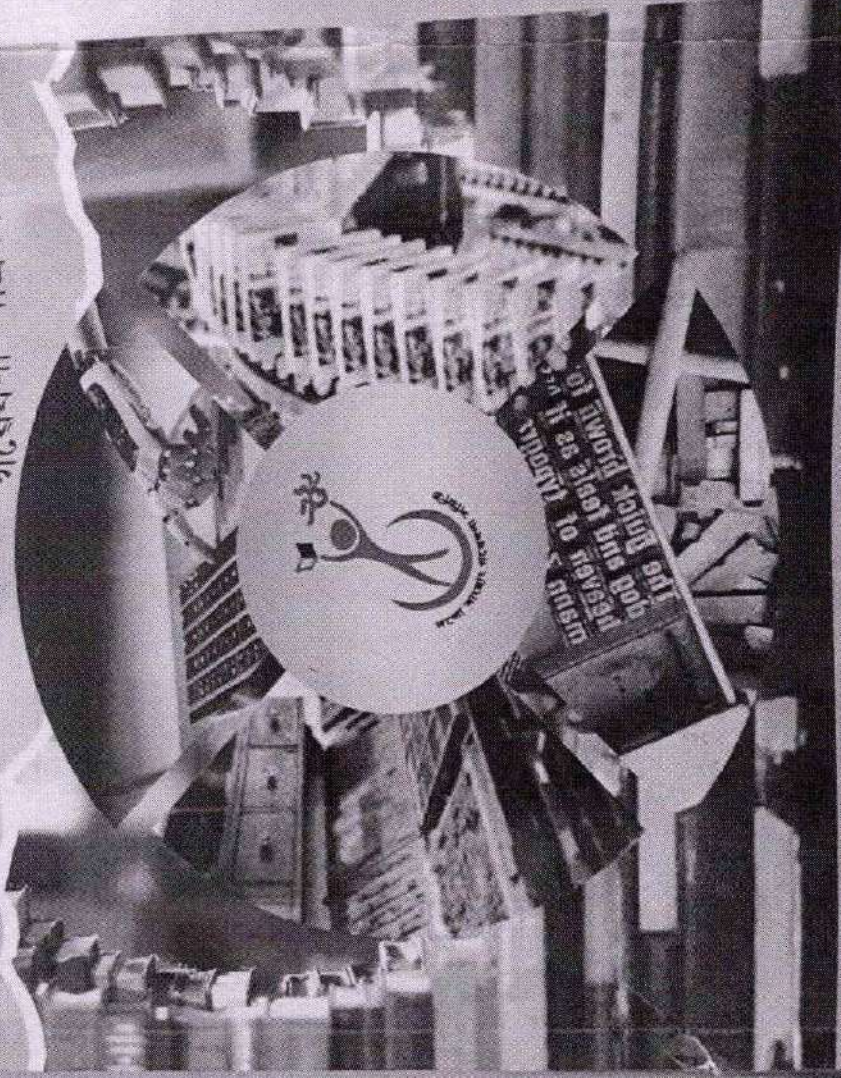
Principal
Regional Institute of Education
Bhubaneswar-751022

ISSN: 2347-2180

Dogo Rangsang Research Journal
(A Bilingual Research Journal, Indexed in UGC-Care list)
Vol-11, Issue-11 No.02 November 2021

DOGORANGSANG
Research Journal

দগো বাংছাং
গবেষণা পত্রিকা



CHIEF EDITOR (HON.): মুখ্য সম্পাদক (অবৈতনিক):
Dr. Upen Rabha Hakacham ড° উপেন বাড়া হাকচাম
EDITORS (HON.): সম্পাদকদ্বয় (অবৈতনিক):
Dr. Lalit Chandra Rabha ড° ললিত চন্দ্র বাড়া
Dr. Neeva Rani Phukan ড° নিভা বাণী ফুকন

Upasana Ray

Regional Institute
of
Education
Bhutan
Thimphu

2021

Upasana Ray

Phonon Dynamics and Acoustic and Thermodynamic Properties of $\text{Pt}_{57.5}\text{Cu}_{14.7}\text{Ni}_{5.3}\text{P}_{22.5}$ Bulk Metallic Glass

R. R. Koireng^{1,2*}, P. C. Agarwal³, A. Gokhroo¹

¹Samrat Prithviraj Chauhan Government College, Ajmer-305001, Rajasthan, India

²National Institute of Education (NCERT), New Delhi-110016, India

³Regional Institute of Education (NCERT), Bhubaneswar-751022, Odisha, India

Received 2 June 2020, accepted in final revised form 29 September 2020

Abstract

The phonon dispersion curves for $\text{Pt}_{57.5}\text{Cu}_{14.7}\text{Ni}_{5.3}\text{P}_{22.5}$ bulk metallic glass (BMG) are computed employing various dielectric screenings using the simple model given by Bhatia and Singh. The force constants β and δ for computing the dispersion curves are calculated from the elastic constants i.e. bulk modulus (B) and shear modulus (G) along with the calculated value of force constant κ_e of the material of the glass for the first time. The results of the phonon dispersion curves show appropriate behavior in the long wavelength region in detail for both the longitudinal and transverse modes and give insight regarding the acoustic and thermal properties of the BMG. The transverse sound velocity and the longitudinal velocities with various dielectric screening are calculated from the dispersion curves in the long wavelength region. The corresponding thermodynamic property (Debye temperature) is calculated for different dielectric screenings. The theoretical results predicted are in a good agreement with the reported data in the literature for the $\text{Pt}_{57.5}\text{Cu}_{14.7}\text{Ni}_{5.3}\text{P}_{22.5}$ BMG and may be used for correlating other properties.

Keywords: Bulk metallic glass; Phonon dispersion; Dielectric screening; Elastic constant.

© 2021 JSR Publications. ISSN: 2070-0237 (Print); 2070-0245 (Online). All rights reserved.
doi: <http://dx.doi.org/10.3329/jsr.v13i1.47327> J. Sci. Res. 13 (1), 21-29 (2021)

1. Introduction

Bulk metallic glasses have emerged with attractive mechanical and thermal properties having a wide range of technological applications [1,2]. The understanding of phonon dynamics and micro-structural configuration of metallic glasses is essential for understanding their acoustic, elastic and thermal properties [2–7]. Experimentally, neutron scattering has been used to study the phonon frequencies of metallic glasses [8,9]. The theoretically computed phonon dispersion curves both for longitudinal and transverse modes have also been reported by computer simulation and recursion techniques [8-13]

* Corresponding author: karenkrr@gmail.com


प्राचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर/Bhubaneswar-751022

Terahertz surface plasmons propagation in semiconducting parallel plates waveguide configuration

ROOPKIRANPREET KAUR^{1,2}, MAIDUL ISLAM^{3(a)}, P. C. AGARWAL⁴, SUKHDEEP KAUR^{1(b)} and GAGAN KUMAR⁵

¹ Guru Nanak Dev University - Amritsar, 143008, Punjab, India

² S. L. Bawa DAV College - Butala, Gurdaspur, 143505, Punjab, India

³ Department of Physics, The Assam Royal Global University - Guwahati 781035, Assam, India

⁴ Regional Institute of Education - Bhubaneswar 751022, India

⁵ Department of Physics, Indian Institute of Technology Guwahati - Guwahati 781039, Assam, India

received 18 December 2020; accepted in final form 12 April 2021
published online 15 July 2021

Abstract – In this study we theoretically and numerically demonstrated a 3-D plasmonic terahertz waveguide made up of two parallel plates of semiconductor sandwiching a thin region of vacuum/air. The semiconductor can reveal conductive properties at the THz regime, making it an appropriate replacement for structured metallic surfaces in plasmonic devices. The proposed waveguide configuration not only offers an extra degree of freedom to tailor the propagation of THz wave but also promises more confinement compared to the planar waveguide configuration. The dispersion relations of the terahertz surface plasmon polaritons as they propagate in the proposed configuration is calculated using the Drude model. It is observed that the dispersion behavior of the modes is altered by the carrier densities of the plates and the separation between them. We also numerically analyze the terahertz surface waves propagation in the proposed geometry and examine terahertz surface modes behavior in conjunction with the theory. For the tapered configuration, we observed that the transmission amplitude increases as the tapering angle increases for the same input width. The present study could be significant in the construction of terahertz active and passive devices that may utilize semiconductors instead of metals.

Copyright © 2021 EPLA

Introduction. – Terahertz waves, also known as sub-millimetre radiations, have drawn a significant attention in the scientific community in the last two decades [1,2]. With the advancement in the laser technology, several techniques have evolved for the generation and detection of terahertz waves with frequencies ranging from 0.1 THz to 10 THz. THz radiations have great potential for the communication purpose due to their ability in transferring information at much more speed as compared to other available communication systems [3,4]. In order to make communication devices a reality at terahertz frequencies, the efficient guiding of radiations is very crucial. In this context, various wave guiding techniques have been developed with a focus on obtaining the best possible confinement and the lowest loss. These techniques include dielectric fibres [5], coaxial lines [6], parallel plate configuration [7], corrugated wave guides [8], metal wires [9], etc. Among these techniques, the parallel plate

waveguide geometry (PPWG) in which two plates are separated by a medium, has been widely explored by the researchers [10,11] as it offers huge prospectives in many applications such as material characterization [12], THz imaging [13], THz sensing [14], etc.

In order to exploit the guided wave properties of parallel plate configuration, one needs to understand about the number of modes supported by the configuration and their propagation properties. The number of modes can be broadly determined based upon the separation between the plates, however their properties depend upon the polarisation of the incoming wave with respect to the parallel plates. Due to opposite signs of the effective permittivities of metal and dielectric, one can also exploit the coupling between the incoming electromagnetic field and free electrons of the metal at the interface [15]. This phenomenon is useful for the excitation of surface plasmon polaritons (SPPs) at the interface of metal and dielectric/air. In order to excite the SPPs, the input beam is polarized perpendicular to the plate surface which results in the transverse magnetic (TM)

^(a)E-mail: maidul.alig@gmail.com, mislam@rgu.ac (corresponding author)

^(b)E-mail: sukhdeep.iitd@gmail.com

Inclusion in Schools

Perspectives and Possibilities

Editors

Yukti Sharma • Haneet Gandhi

Book
Chapter
*

प्रमुख/PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022

Inclusion in Schools

Pedagogy for Diversity

A Pursuit of Inclusivity

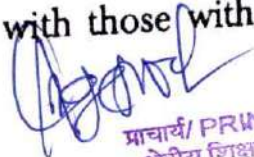
Gowramma

Inclusion is an ideology calling for the active, intentional, and ongoing engagement with diversity in the curriculum, in the co-curriculum, and in communities (intellectual, social, cultural, geographical) with which individuals might connect in ways that increase awareness, content knowledge, cognitive sophistication, and empathic understanding of the complex ways individuals interact within systems and institutions (Albertine, 2011). The focus of the ideology is the 'individual' transformation. The term pedagogy indicates the process of facilitating learning by taking into consideration the theories of learning and the needs and interest of individual students. Thus, pedagogy by its meaning itself is sensitive to the 'learner' and is concerned with process of learning. In this process of learning, what is being learnt, who is learning, and environment created for this process are the three fundamental features to be explored. Thus knowledge, learner and teacher emerge in the forefront of any discussion on pedagogy.

Knowledge

Knowledge for a learner in a classroom is an individual construction through the physical environment of the class. More so, looking at the learner through the socio-cultural lens as to how the concept presented could be interpreted by the learner is the concern in the elementary school classroom. Examining how teacher implement inquiry within the cultural context of their local situation, how tools, language and social organizations are used by the teacher determine the process of knowledge construction of the learner.

Can knowledge be equated to the content of the learning process? Does knowledge affect the process of learning and get affected by the process? It is very clear that it is impossible to have a view of learning without implying a view of knowledge. Knowledge and learning are intertwined in a constructive process at two levels Rogoff (1995). The first is at the level of the interactions that learners have with each other and with those with more

प्राचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022

2021 * 2021

NP

Becoming Inclusive Teachers: Perspectives of Pre-service Teachers of Regional Institute of Education, Bhubaneswar on Inclusive Education

Manoj Kumar Swain¹, Laxmidhar Behera^{2*}, Amlesh Kumar³ and Dhanya Krishnan⁴

¹M.Ed. Student, ²Professor, ³Research Scholar, ⁴Assistant Professor
Regional Institute of Education, NCERT, Bhubaneswar, Odisha, India

*Corresponding author: behera17@yahoo.co.in

ABSTRACT

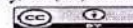
Preparing educators for inclusive education setup and improving learning outcomes of children with special needs is a major concern across the globe. The present study explored student teachers' perspectives towards inclusive education. The study explored the experiences and preparation of secondary level pre-service teachers in theory and field-based activities for inclusive education. A descriptive survey method was used for this study. The research was limited to students studying at Regional Institute of Education, Bhubaneswar a constituent unit of NCERT, India. The sample consisted 125 final-semester student teachers (8th semester student teachers from four-year integrated B.A.B.Ed., B.Sc.B.Ed. and 4th semester student teachers from 2 year B.Ed. programmes). Attitude scale and self-developed questionnaire were used for this study. The result of the study revealed that, majority of the student teachers have optimistic attitudes toward inclusive education. Majority of the pre-service teachers stated that theory and field engagement activities for inclusive education are helpful for preparing inclusive classroom teachers. But they also stated that these activities and conceptual papers are not enough for preparing inclusive classroom teachers. The study's findings have a wide range of consequences for teachers, teacher educators, and teacher education institutions as well as forthcoming research.

Keywords: Pre-service Teachers, Inclusive Education, Teacher Education Institutions

Inclusive education has become widely acknowledged as a philosophy for achieving educational fairness for all children, particularly those who have been excluded from conventional educational procedures

How to cite this article: Swain, M.K., Behera, L., Kumar, A. and Krishnan, D. (2021). Becoming Inclusive Teachers: Perspectives of Pre-service Teachers of Regional Institute of Education, Bhubaneswar on Inclusive Education. *Learning Community*, 12(01): 27-38.

Source of Support: None; **Conflict of Interest:** None



Dr.

Principal

प्राचार्य/PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर/Bhubaneswar

PERCEPTION AND PREFERENCES OF HIGH SCHOOL STUDENTS IN JAMSHEDPUR INDUSTRIAL CITY TOWARDS MODE OF LEARNING IN THE WAKE OF COVID-19

Dr. (Fr.) P. Anthony Raj
Principal,
Loyola College of Education,
Jamshedpur, Jharkhand

S.J. Dr. Elizabeth Gangmei
Associate Professor,
Regional Institute of Education,
(NCERT), Bhubaneswar,
Odisha

Rupa Gupta
Research Scholar,
Regional Institute of
Education, (NCERT),
Bhubaneswar, Odisha

Abstract

The phrase "new normal" has become a cliché. The COVID-19 pandemic has drawn our attention to numerous alternative methods of teaching, hitherto unknown and unexplored. Educational institutions have pushed their boundaries to ensure that teaching-learning continues despite the constraints of the COVID-19 pandemic. Online teaching has proved beneficial to both educational institutions as well as students. The present paper is an effort to find the availability of ICT resources, perception, skills of students, and the challenges faced by students while attending online classes. A quantitative descriptive survey method was used for the purpose of this study. The sample consisted of 360 High School Students i.e., 20 students each from classes VII, VIII, and IX from 6 Jamshedpur Industrial City Schools - 3 English and 3 Hindi Medium schools purposefully. The findings of the study revealed that the maximum number of the respondents had a smartphone (94%) followed by the availability of an internet connection (40%), whereas 25% of students cited that a laptop is available for use in their home. The study reveals that the face to face learning is preferred mode of learning for social presence, social interaction, and satisfaction; but, in contrast, online mode is a choice during Covid-19 on account of safety and security of lives. Meanwhile, statistically it is found that Hindi Medium School students have more favorable perception towards online learning than English Medium School Students. The study concludes that online teaching-learning is the best possible way to sustain academic activities during Covid-19.

Keywords: *Online Classes, High School Students, Covid-19 pandemic*

Introduction

The demands of the contemporary educational system are very different from what they were in the past. With the continual development of technology, educational institutions are now employing online education which gained momentum and made inroads into our education system. The fusion of digital technologies and the development of the Internet have prompted a change in education methodologies. Online learning is basically a form of electronic learning which delivers education through the internet instead of a conventional classroom. One of the vital shifts in education is the resultant largest "online movement" in the history of education. This and other ensuing changes allow us a glimpse into the future of education with many experts predicting it will be a new normal in learning (Chung, Subramaniam & Dass, 2020). Online learning has grown at an incredible rate due to

lack of skilled
little attention
online resources

ment as early as

ely to face the

or the successful

nal ICT policy.

sited insight for
113-116.

H., Agnes and
ner groups. In:

EFL students in

oi.org/10.1007/

iristic Scope in

and learning.

say analysis of

larly research

in educational
5(1). 374-381.
es/8767

3 July Sept 2021

23/07/22
प्रो. चार्य / PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar



AMIERJ

AARHAT MULTIDISCIPLINARY INTERNATIONAL EDUCATION RESEARCH JOURNAL
Volume-X, Issues- III

ISSN-2278-5655

May - June 2021

**STATUS OF GOVERNMENT PROGRAMME AND SCHEMES
IMPLEMENTED IN MADRASHA OF ODISHA**

Ayesha Tanwir

Researcher Scholar in Education

Regional Institute of Education, NCERT, Utkal University, Bhubaneswar

Email: tanwir.ayesha@gmail.com

&

Elizabeth Gangmei, Ph.D.

Associate Professor

Regional Institute of Education, NCERT, Bhubaneswar

Email: elizabethgangmei@gmail.com

Abstract:

The dynamics of Indian society is built on pluralism and tolerance where synergetic existence of religion, language, and cultures are formed. According to Article 29 of the constitution- Protection of Interests of Minorities (i), any section of the citizens residing in the territory of India or any part thereof having a distinct language, script or culture of its own shall have the right to conserve the same. Though the best approach to conserve, transmit the cultural heritage is through education, the progress of education varies within the minority groups. Among the minorities Muslim literacy rate is lower than the other minority group. The Muslims lag behind in most human development indicators (Sachar Committee Report, 2006). This backwardness is the main concern that draws the attention of researchers and academicians, on how various initiatives or educational schemes were taken and implemented to revitalize education of Muslim students. Thus the paper is an attempt to study the status of Muslim education vis-a-vis Government policies/schemes on Madrasa education.

Keyword: Education Literacy, Religious Minorities, Development, Madrasa, Odisha



Aarhat Publication & Aarhat Journals is licensed under a work at <https://creativecommons.org/licenses/by-nc/4.0/>

प्राचार्य/PRINCIPAL

क्षेत्रीय शिक्षा संस्थान

Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751 004

The Essence of Folklore to foster Identity of Rongmei Community

MeisuangdaiGonmei, M.Ed. Student
Regional Institute of Education, Bhubaneswar

Dr Elizabeth Gangmei, Associate Professor
Regional Institute of Education, Bhubaneswar


SmitaBorgogoi, M.Ed. Student
North-Eastern Hill University, Shillong,

Abstract

The Rongmei tribe of Manipur has a rich culture, custom and traditions and folklore plays an important role in disseminating various cultural practices, customs, traditions and values. Folklore and storytelling are mostly chosen to reflect the way of living and thinking of the people. The universal, humanistic and values of the Rongmei community are passed on through oral tradition. However, as the generations pass by, folklore seems to have become less relevant, especially within the younger generation. The young generation makes fewer efforts to bring back and preserve these rich local contents. This study analyzes the significance of the folklore in Rongmei community and attempts to identify how folklore accentuated the formation of identity both individually and community as distinct 'Rongmei People'. Narrative analysis has been used for the study and the data has been gathered through primary and secondary sources. For primary data, interview was taken through online mode wherein samples were selected purposively with a criterion of individuals who have the knowledge and experience of Rongmei folklore and the secondary data has been collected from different sources that are through audio-recordings, books, journals and e-sources etc. It was found that only selected persons were well versed with the Rongmei folklore. In addition, it is also seen that a written document on Rongmei folklore is very limited. The results indicated that the Rongmei folklore plays a significant role in developing the identity of Rongmei community and, the history of the past community life is beautifully portrayed through the folklore inculcating good values in community life. The uplifting of the community in the oral tradition makes it an essential study as to how folklores positions themselves in giving identity to a community.

Keywords: Rongmei, Folklore, identity, practices, values.

D-11


प्राचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर/ Bhubaneswar
751002

2021 *Dr Elizabeth Gangmei

Rupa Gupta, Elizabeth Gangmei & Vikramjit Singh

Upgrading Learning Process through Online Interactive STEAM Curriculum



Research

STEAM – Science, Technology, Engineering, Arts, and Mathematics – are ascertained as indispensable to future-focused knowledge and skills. Also, it will be key to India's leadership in the 21st Century. It is an integrated approach to the teaching of Science, Technology, Engineering, Arts, and Mathematics, aimed at all-round development of students' skills in critical thinking, problem-solving, creativity, innovation, communication, collaboration, and entrepreneurship. An online learning platform is a place where students learn, experiment, and commit mistakes. While it is all right to learn from one's mistakes, sometimes the mistakes are unbearable. So, teachers play a pivotal role here as they guide them to make perfect. An online interactive STEAM curriculum, with its frequent assessments and quizzes, impels students to understand concepts rather than learning by rote. By creating game-based learning modules, educators can enable students to find solutions. It is estimated that the majority of the roles within the future would require math and science skills; therefore, developing these skills from a young age will definitely be beneficial to the students as they can hone them over the years and perhaps mastered them by the time they are ready for a job. STEAM education curriculum offers the best opportunities to upgrade the learning process and make sense of the technological world in its entirety. So, we need to spend a bit of time to upgrade learning process and replace our age-old curriculum with an online interactive STEAM curriculum.

Education systems worldwide are constantly reinventing themselves in the 21st Century in an effort to keep pace with the exponential growth in digital learning and media. Technology is dramatically changing the nature of learning, training, and education, and voraciously demanding rapid sectoral and societal responses. Terms such as project-based learning, STEM/STEAM, blended learning, gamification etc. feature as the latest buzzwords in the field of learning and development. The term STEM (Science, Technology, Engineering, and Mathematics) was introduced early in the 21st Century as a way for referring to careers and/or curriculum centered around science, technology, engineering, and mathematics - swiftly growing industries in the U.S. economy. Afterward, people began to recognize that it was time to start preparing the youth to develop 21st Century skills that are a crucial part of the subsequent career. Fast forward several years, after STEM had become a buzzword in the world of

education, and a new, very similar term emerged -STEAM. The "A" in steam refers to 'Arts'. And this addition plays a vital role in how we need to prepare our youth for the future. "Integrating arts activities can decidedly enliven the curriculum content, make lesson outcomes more successful and interesting to both teachers and students, and introduce powerful and inspired creativity into the teaching-learning process." (Sousa & Pilecki, 2013). Hence, STEAM is an educational approach to learning that uses Science, Technology, Engineering, the Arts, and Mathematics as an object for guiding students' willingness to learn more and more, inter alia, critical thinking.

The scarcity of skilled in the STEAM-related field is redefining educational priority. Schools are starting STEAM-based learning programs to equip students with the talents and knowledge needed to thrive within the 21st Century. STEAM learning not only produces tomorrow's designers and engineers but also develops innovative mindsets

and therefore the ability to problem-solve, ensuring that our students become creators of technology, not just passive consumers (Whittle, 2018).

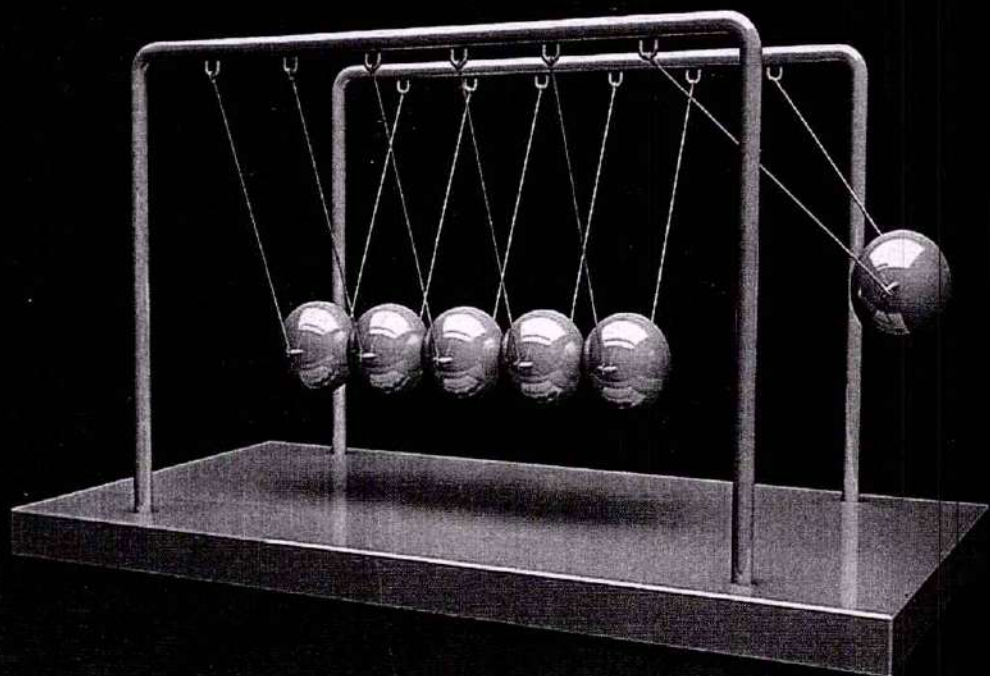
The education world continues to explore new strategies to equip students with the paramount 4C's skills i.e. Critical Thinking & Problem-Solving, Communication, Collaboration, Creativity & Innovation, and the knowledge they need to be successful innovators and creators in the 21st Century workforce; thus there has been a great emphasis on STEAM and related learning tactics as an avenue for making this happen.

Rupa Gupta is a Research Scholar, Regional Institute of Education, (NCERT), Bhubaneswar.
Dr. Elizabeth Gangmei is an Associate Professor with the same institution.
Dr. Vikramjit Singh is an Associate Professor, St. Xavier's College of Education, Patna.

2021

*

A Textbook of Oscillations and Waves



M. Goswami

S. Sahoo



Winners Wisdom
SCITECH

M. Goswami

[Signature]

Regional Inst.
Bhub.



Using SIR Model and Recurrence Formula to Predict the Spread of COVID-19 in Sambalpur: A Mathematical Study

S. Kapoor and Roushnee Naik*

*Department of Science and Mathematics, Regional Institute of Education (NCERT),
Bhubaneswar, Odisha, India*

E-mail: roushneenaik@gmail.com

**Corresponding Author*

Received 01 September 2021; Accepted 29 October 2021;
Publication 23 December 2021

Abstract

Corona Virus has spread across the globe and is creating havoc. Lockdown is being imposed worldwide depending on the number of cases. Everyone are advised to wear masks, follow social distancing, and use hand sanitizers to keep them safe. But all these precautions are not enough to curb the spread of the disease. People are still getting infected even after taking proper precautions and obeying the lockdown rule. We need to know in advance the approximate number of infected people so that we can devise better precautionary measures to curb the spread of the virus. So we use a simple SIR Model and solve it using basic differentiation and integration techniques and then use recurrence formula approach to predict the spread of COVID-19 in the city of Sambalpur of Odisha state. We compare the outcome of the model with the real time data and we arrive at the conclusion that the model is efficient in predicting the spread using the recurrence formula till the date 05/06/2021.

Keywords: COVID-19, SIR Model, recurrence formula, spread.

Journal of Graphic Era University, Vol. 9_2, 231–256.

doi: 10.13052/jgeu0975-1416.928

© 2021 River Publishers

प्राचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022



Impact of ICT Integrated Pedagogy on Children's Comprehension and Learning Outcomes in Science at Upper Primary Level

Deepshikha¹, Ramakant Mohalik¹ and Animesh Kumar Mohapatra^{1*}

¹Department of Education in Science and Mathematics and Department of Education, Regional Institute of Education (NCERT), Bhubaneswar -751022, Odisha, India.

Authors' contributions

This work was carried out in collaboration between all authors. Author AKM designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author RM managed the analyses of the study. Author Deepshikha managed the literature searches. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJESS/2021/151130367

Editor(s)

(1) Dr. M. Camino Escolar-Llamazares, University of Burgos, Spain.

Reviewers

(1) Arvind B. R., Vellore Institute of Technology, India.

(2) Ghaouar Nesrine, Badji Mokhtar Annaba University, Algeria.

(3) Indah Sucati, Alkhairaat University, Indonesia.

Complete Peer review History: <http://www.scribbr.com/review-history/65097>

Original Research Article

Received 29 November 2020

Accepted 01 February 2021

Published 17 February 2021

ABSTRACT

This study investigated the impact of ICT integrated pedagogy on learning outcomes in science of upper primary students. A quasi-experimental (Pre-tests and post-tests with control group) research design was adopted to conduct the study. One hundred and twenty five class VIII children were the participants. The experimental group was taught with the help of ICT integrated pedagogy whereas the control group was taught by traditional chalk and talk pedagogy. The data were analyzed using descriptive and inferential statistics. The results indicated a statistically significant difference in comprehension and learning outcomes of a science topic i.e. Cell: Structure and Function of experimental group and control groups. Children of the experimental group had better learning outcomes in science than control groups. This trend was also reflected in personal interviews. Therefore, it is suggested that ICT integrated pedagogy ought to be employed in the teaching of science at the upper primary level to enhance conceptual understanding and learning outcomes in the subject.

*Corresponding author: Email: akmncert@gmail.com



प्राचार्य/ PRINCIPAL

क्षेत्रीय शिक्षा संस्थान

Regional Institute of Education
भुवनेश्वर/ Bhubaneswar-751022

**LOW ATTENDANCE OF GOVERNMENT ELEMENTARY
SCHOOL STUDENTS IN JHARKHAND: VIEWS OF
TEACHERS AND HEAD TEACHERS**

Ramakanta Mohalik, Regional Institute of Education (NCERT), Bhubaneswar, India

Introduction

Elementary education is the foundation stone for all further education and future life of all individual. Realizing its importance, the Government of India has made elementary education as Fundamental Rights of all children up to 14 years since 2010. Similarly, the Government of Jharkhand state have been continuously trying to provide quality education to all the students at elementary level by implementing different programmes and policies such as Vidyalaya Chalen Abhiyan, Prayas, Khel Khel Mein, Buniyad, Buniyad Plus, Hamara Vidyalaya Adarsh Vidyalaya, Bal Samagam, Bal Sansad, Aavishkar, Mukhyamantri Vidya Lakshmi Yojna, Pahle Padhai Phir Vidai, Jharkhand Balika Awasiya Vidyalaya, Parivartan Dal etc. Despite this, elementary schools are facing many problems such as lack of physical facilities, poor school environment, lack of teaching learning materials, shortage of teachers and low attendance of students.

Low attendance among students is one of the major problems at elementary level. Researchers have different opinion on reasons of low attendance in schools. Thapa and Sarkar (2019) reported that due to livelihood pressure at home and the double burden of household chores and income-generating work along with inadequate support from school made it challenging for children to complete elementary education. The similar findings reported by (Sahin and Arseven, and Shahzada, 2016) that children of seasonal worker families are

2021

Education India



**A Quarterly Refereed Journal
of Dialogues on Education
(ISSN 2278-2435)**

Paper-27

**Factors Influencing Students' Higher
Order Thinking Skills Development**

**Dipak Bhattacharya
Prof. Ramakanta Mohalik**

(4)

Factors Influencing Students' Higher Order Thinking Skills Development

Dipak Bhattacharya⁴⁵
Prof. Ramakanta Mohalik⁴⁶

Abstract:

Higher order thinking skills include critical thinking abilities, which go beyond basic scientific experience so as to help students to accumulate knowledge and to apply solutions in order to gain potential answers in new circumstances. The development of higher order thinking skills facilitate the knowledge transfer process and strengthens the possible roles and functions of students in society. The present study was intended to determine the different factors that influencing students' higher order thinking skills development at elementary level. Investigators had used descriptive survey technique in this study. The results of the study indicated that it has three major variables such as teacher related, student related and institution related variables. All major variables are performing as influential factors for the development of higher order thinking skills among students at elementary level. The study found that teachers' knowledge about higher order thinking skills, teachers' self efficacy to implement higher order thinking skills in classroom, students' attitude to inculcate their analyzing, evaluating and creating skills and curriculum structure of the institutions are helpful to develop higher order thinking skills among students at elementary level.

Keywords: Higher order thinking skills, teacher related factors, student related factors, institution related factors.

Introduction:

The willingness of students to comprehend ideas, construct knowledge, and solve problems is a function of their capacity to learn. The 'Revised Bloom's Taxonomy' model which supports knowledge and abilities shaping across cognitive domains, including remembering, understanding, application, analysis, evaluation and creation. The concept of thinking ability can be divided into two levels, such as higher order thinking skills and lower order thinking skills. Each level is linked, so that

⁴⁵ Research Scholar, Department of Education, Regional Institute of Education, NCERT, Bhubaneswar, India. dipakbhattacharya7@gmail.com

⁴⁶ Professor of Education, Department of Education, Regional Institute of Education, NCERT, Bhubaneswar, India. Email Id of Prof. Ramakanta Mohalik: rkmohalik@riebbs.ac.in

ISSN 0377-0435 (Print)
0972-5628 (Online)

Journal of Indian Education

Volume XLVI

Number 4

February 2021

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

प्रदेशीय शिक्षा संस
क्षेत्रीय शिक्षा संस
Regional Institute of
भुवनेश्वर, Bhubanesw

Reorganisation and Merger of Schools at the Elementary level in Jharkhand Views of Stakeholders

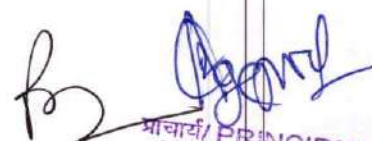
RAMAKANTA MOHALIK*

Abstract

The objective of this paper is to study the views of different stakeholders such as students, parents, teachers, Headmaster¹ is used to address a person of any gender who holds the head position in a school. Headmaster (HM) and education officers regarding problems and issues of reorganisation and merger of schools. Survey method was used with the help of Focused Group Discussion (FGD) and interview. Sample of 31 merged schools, 310 students, 74 parents, 54 teachers, and 31 HMs were selected by using multistage sampling from Jharkhand. FGD for students of merged school, interview for parents, teachers, HMs and education officers were used as tool for data collection. The collected data was processed in Excel and analysed by percent and words. The study found that— i) Majority of students did not feel good when the school got closed as they were very much attached with old school and it was near to their habitation. They have difficulty to go new school regularly. ii) Seventy-three percent of parents expressed that they felt unhappy about merger of old school as it was near and children come to school on their own. Now, parents are dropping and picking their wards from new school, which is hampering their daily work. iii) Sixty-three percent of teachers feel good as the present school was in the same campus. Old school had fewer classrooms, single teacher and it was difficult to manage all activities. iv) Education officers responded that

* Department of Education, Regional Institute of Education, NCERT, Bhubaneswar

¹ The term 'headmaster' is used to address a person of any gender who holds the head position in a school.


प्रचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751 005



Impact of ICT Integrated Pedagogy on Children's Comprehension and Learning Outcomes in Science at Upper Primary Level

Deepshikha¹, Ramakant Mohalik¹ and Animesh Kumar Mohapatra^{1*}

¹Department of Education in Science and Mathematics and Department of Education, Regional Institute of Education (NCERT), Bhubaneswar -751022, Odisha, India.

Authors' contributions

This work was carried out in collaboration between all authors. Author AKM designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author RM managed the analyses of the study. Author Deepshikha managed the literature searches. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJESS/2021/151130367

Editor(s):

(1) Dr. M. Camino Escolar-Llamazares, University of Burgos, Spain.

Reviewers:

(1) Aravind B. R., Vellore Institute of Technology, India.

(2) Ghaouar Nesrine, Badji Mokhtar Annaba University, Algeria.

(3) Indah Suciati, Alkhairat University, Indonesia.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/65097>

Original Research Article

Received 29 November 2020

Accepted 01 February 2021

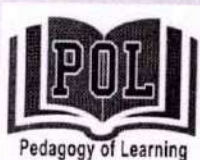
Published 17 February 2021

ABSTRACT

This study investigated the impact of ICT integrated pedagogy on learning outcomes in science of upper primary students. A quasi-experimental (Pre-tests and post-tests with control group) research design was adopted to conduct the study. One hundred and twenty five class VIII children were the participants. The experimental group was taught with the help of ICT integrated pedagogy whereas the control group was taught by traditional chalk and talk pedagogy. The data were analyzed using descriptive and inferential statistics. The results indicated a statistically significant difference in comprehension and learning outcomes of a science topic i.e. Cell: Structure and Function of experimental group and control groups. Children of the experimental group had better learning outcomes in science than control groups. This trend was also reflected in personal interviews. Therefore, it is suggested that ICT integrated pedagogy ought to be employed in the teaching of science at the upper primary level to enhance conceptual understanding and learning outcomes in the subject.

*Corresponding author: Email: ekmncert@gmail.com;


Principal / PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-7510



PEDAGOGY OF LEARNING

International Refereed/ Peer Reviewed Journal of Education

Vol. 7 (4) October 2021, 47-55, E-ISSN: 2395-7344

Abstracted and indexed in: Google Scholar, Research Bib, International Scientific Indexing (ISI), Scientific Indexing Services (SIS), WorldCat,

Cite Factor, Impact Factor: 0.787(GIF)

Website: <http://pedagogyoflearning.com>

Recommended citation for this Article:

Ankita & Mohalik, R.K. (2021). An analysis of perception and prevalence of key teaching values among pre-service teachers. *Pedagogy of Learning*, 7 (4), 47-55. Available at: <http://pedagogyoflearning.com>. DOI: 10.46704/pol.2021.v07i04.006

An Analysis of Perception and Prevalence of Key Teaching Values Among Pre-Service Teachers

Ankita

M.Ed. Scholar, Department of Education, Regional Institute of Education, (NCERT), Bhubaneswar, Odisha, India. Email: moiankita@yahoo.com

Ramakanta Mohalik

Professor, Department of Education, Regional Institute of Education, (NCERT), Bhubaneswar, Odisha, India. E-mail: mohalikrk@gmail.com

Article DOI: 10.46704/pol.2021.v07i04.006

Corresponding Author: Ramakanta Mohalik

E-mail: mohalikrk@gmail.com

Article Publication Date: 30 October 2021

ABSTRACT

The creation of a sustainable living environment is a key priority for the entire human society. It is our values that distinguish humans from other creatures. Teachers are role models in society who inspire others via their noble and unselfish commitment to humanity. They are the ones that create ethical citizens of society; they must have certain values to instil in the students. The current study looked at both pre-service teachers' and academics' perspectives on the most significant teaching values. The study also looks at the values that preservice teachers hold. The researcher analysed many policy documents about values in teacher education before selecting and considering the most significant values for data collection and analysis. The data was collected through two self-developed tools namely Value Assessment Matrix and Value Assessment Inventory. The data was collected from 17 academics and 135 preservice teachers from various teacher education institutes in eastern India who were chosen by voluntary response sampling. The result of the study suggested that Responsibility, Honesty, Virtue, Discipline, and Equality are the most important teaching values for a teacher. The study also revealed that most preservice teachers have a modest level of those values and results can be concluded that most pre-service teachers favour qualities such as responsibility, discipline, and honesty over virtue and equality.

Keywords: Values, Values in Teacher Education, Preservice Teachers.

Attendance of Students in Government Elementary Schools: A Study on Jharkhand

DOI: <https://doi.org/10.47175/rielsj.v2i2.254>| Ramakanta Mohalik^{1,*} | Rasmirekha Sethy² | Ms. Sangeeta³ |¹Regional Institute of
Education (RIE),
Bhubaneswar, India²Associate Professor, RIE
Bhubaneswar, India³JPF, RIE Bhubaneswar, India

*mohalikrk@gmail.com.

ABSTRACT

The main objective of this study is to explore the causes of low attendance of students in Government elementary schools. Survey method was adopted to conduct this study. Sample consists of 30 Head Teachers (HT) and 78 teachers selected through purposive sampling technique from Dhanbad and Lohardaga district of Jharkhand, India. Self-developed checklist with Yes or No options basing on different factors of low attendance was used as tool. The data were collected through Google form and analyzed by use of frequency count and percentage. It is found that causes such as working of both parents, involvement of children in domestic work, taking care of siblings, migration of parents for work, involvement in farming and harvesting, low aspiration of parents, abusive home environment, lack of interest of students in studies, poor in basic skills, lack of teachers and regular HTs in school, poor teaching strategy of teachers etc. are responsible for low attendance of students in elementary school. The study has suggested for coordinated effort from parents, School Management Committee (SMC), Government, teachers and HTs for increasing attendance of students. Further, it is suggested to provide non-formal education to illiterate parents so that they can realise the importance of education in one's life.

KEYWORDS

Low attendance; elementary school; family related causes; school related causes; teacher related causes

INTRODUCTION

Elementary education is the stepping-stone towards secondary and higher education. It lays the foundation of study on which the pillars of career stands. It prepares the students to pursue their learning with confidence. But continuation of learning is possible only when students come to school regularly. If they will not come to school regularly then they will miss the important concept taught by the teacher. Low attendance causes many problems in proper running of the school and it ruins the life of students. In fact, attendance is the key for a child to be successful in their school career. Vital things are missed if the child is absent even just one day. The Government of India has implemented many initiatives such as Mid Day Meal, Sarva Shiksha Abhiyan (SSA), Right to Education, Samagra Shiksha, NISHTHA etc. for the improvement of elementary education in general and rate of attendance in particular. Similarly, the Government of Jharkhand has implemented many plans and policies like Vidyalaya Chalen Abhiyan, Prayas, Khel Mein, Buniyad, Bal Samagam, Bal Sansad and Pahle Padhai Phir Vidai etc. for promotion of elementary education. In spite of all these initiatives, all students in Government schools are not attending school regularly.

2

2021

NP

The Use of Geogebra Software as a Tool to Understand the Concept of Limit at the Under Graduate Level

Arup Kumar Saha^{1*} and Gauri Roy²

¹Regional Institute of Education (NCERT), Bhubaneswar, Odisha, India

²D.M. School, Regional Institute of Education (NCERT), Mysuru

Corresponding author: saha.ganit@gmail.com

ABSTRACT

In education, information and communication technologies (ICT) provide a modern learning environment in which students can build their own knowledge. In ICT, there is a lot of space for visualisation and experimentation. The aim of this study was to investigate whether instruction with Geogebra has impact on students' achievements regarding their conceptual and procedural knowledge on the concept of limit. For this research study the investigators adopted a quantitative approach, using a true experimental design with a pre-test, post-test control group. It was observed that the suggested exercises aided students at the undergraduate level in grasping the principle of limit.

Keywords: CAS, DGE, function, ICT, limit

Innovative mathematics software environments have changed the essence of teaching and learning mathematics in recent years, allowing for interactive exploration of different mathematical concepts using multiple representations that are often difficult to construct or interpret without the use of technology. Computer Algebra Systems (CAS) and Dynamic Geometry Environments (DGE) are two examples of modern educational technologies that are particularly useful for teaching mathematics. GeoGebra, cabri geometry, Derive, Mathematica, and Wolfram Alpha, Maple, MuPAD, MathCAD, and Maxima are all considered valuable and useful resources for teaching and learning mathematics. These programmes have tremendous potential for facilitating an active learning approach by encouraging students to participate in exploration and consolidation of their own information. This leads to improved

How to cite this article: Saha, A.K. and Roy, G. (2021). The Use of Geogebra Software as a Tool to Understand the Concept of Limit at the Under Graduate Level. *Learning Community*, 12(01): 19-25.

Source of Support: None; **Conflict of Interest:** None



[Handwritten signatures]

प्राचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751004

International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452
Maths 2021; 6(5): 54-58
© 2021 Stats & Maths
www.ijstatsandmaths.com
Received: 19-07-2021
Accepted: 21-08-2021

Arup Kumar Saha
Department of Education in
Science and Mathematics
Regional Institute of Education
(NCERT), Bhubaneswar,
Odisha, India

Manoj Kumar Hota
Department of Mathematics,
Nayagarh Autonomous College,
Nayagarh, Odisha, India

Prasanta Kumar Mohanty
Department of Mathematics,
School of Applied Sciences
KIIT Deemed to be University,
Bhubaneswar, Odisha, India

Approximate evaluation of complex hyper singular integrals

Arup Kumar Saha, Manoj Kumar Hota and Prasanta Kumar Mohanty

DOI: <https://doi.org/10.22271/maths.2021.v6.i5a.726>

Abstract

In this paper we develop a method for approximate evaluation of complex hyper singular integrals in the complex plane. The schemes are numerically validated using a set of conventional test integrals. A number of examples is provided to illustrate the efficiency of the method developed here.

Keywords: analytic function, cauchy principal value, Hardamard finite part integral, Taylor's coefficients

1. Introduction

Integrals of the type

$$I(f, z_0) = H \int_L \frac{f(z)}{(z-z_0)^\alpha} dz; \alpha \in \mathbb{N} - \{1\}; \quad (1)$$

are frequently appeared in contour integration, where $f(z)$ is infinitely differentiable function in $\Omega = \{z \in \mathbb{C}; |z - z_0| < \rho = r|h|, r > 1\}$;

of the complex plane \mathbb{C} and L joining the points $z_0 - h$ to $z_0 + h$ lying in the disc Ω .

It is seen that rules (Ref. [4, 7, 8, 9, 12, 15]) meant for the numerical integration of the integral $I = \int_{z-z_0} \frac{f(z)}{z-z_0} dz$;

lead to uncontrolled instability when those are applied for the approximation of the integral given in equation (1). This is due to the presence of singular point z_0 of order $\alpha > 1$ on the path of integration L . The integral defined in equation (1) is called as hyper singular integral in complex plane. The study of its real counter part has been going on for a long time and has been documented in a number of publications (Ref [6, 13, 17, 17-22]).

$$J^* = H \int_a^b \frac{f(x)}{(x-c)^2} dx; a < c < b. \quad (2)$$

However, a very few rules in the course of numerical integration have devised for the former. Therefore, in this study we have proposed a numerical scheme for the numerical computation of the integral given in equation (1).

2. Description of the scheme for numerical evaluation of complex hyper singular integral

To establish the scheme for the numerical computation of the hyper singular integral

$$I(f, z_0) = H \int_L \frac{f(z)}{(z-z_0)^\alpha} dz; \alpha \in \mathbb{N} - \{1\};$$

we assume here that the function $f(z)$ is analytic and infinitely differentiable on the disc

$$\Omega = \{z \in \mathbb{C}; |z - z_0| < \rho = r|h|, r > 1\}.$$

Corresponding Author:
Arup Kumar Saha
Department of Education in
Science and Mathematics
Regional Institute of Education
(NCERT), Bhubaneswar,
Odisha, India

* 2021

ANINIK JOURNAL
ANINIK JOURNAL
ANINIK JOURNAL
ANINIK JOURNAL

ISSN: 2582-1852
E-ISSN: 2582-1852
ANINIK JOURNAL
ANINIK JOURNAL

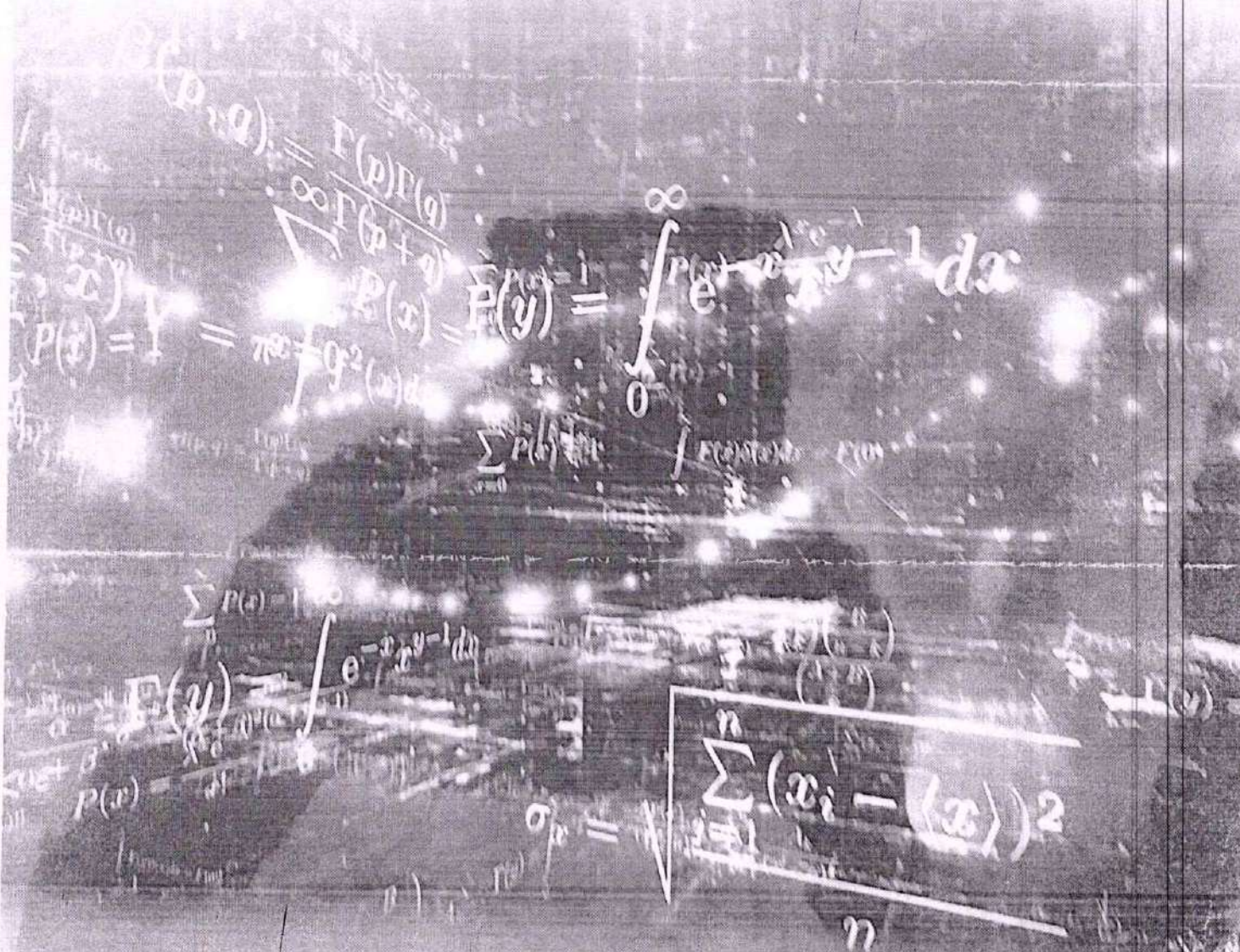
INTERNATIONAL JOURNAL OF STATISTICS AND APPLIED MATHEMATICS

VOLUME 5

ISSUE 5

SEP - OCT

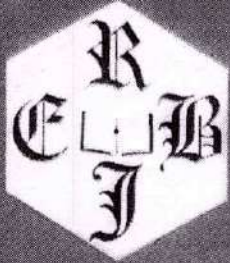
2021



ANINIK PUBLICATIONS
NEW DELHI, INDIA

[Signature]
[Signature]

प्राचार्य/PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751004



RIE BHOPAL JOURNAL OF EDUCATION

(A bi-annual Peer Reviewed Journal)

ISSN: 2582-0621

Vol.- 4 Issue -II, January - June 2021

Special Issue on STEAM Education



REGIONAL INSTITUTE OF EDUCATION
(NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING)

Shyamla Hills, Bhopal - 462 002 (M.P.), India

[Signature] *[Signature]*
प्राचार्य / PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022

Recommended Citation:

Dev, A. & Panda, B. (2020). Perspectives of Integration of STEAM in School Education: An Analysis. *RIE Bhopal Journal of Education*, 4 (I), 24-32.

Perspectives of Integration of STEAM in School Education: An Analysis

Aribam Pratima Dev*
Bhujendra Nath Panda**

Abstract

National Education Policy 2020 emphasized the integration of experiential learning as an innovative practice in the teaching learning process. STEAM is an interdisciplinary experiential form of learning that reinforces the aptitudes of the students and assists them with understanding their inward potential. India as projected by UNFPA, has the largest youth population and will continue to have till 2030. If these youth are educated through STEAM then it can transform the social as well as economical condition of the nation. The present paper is a research work conducted on the prospective teachers of RIE Bhubaneswar about their awareness as well as their perspectives on the challenge and concerns of integration of STEAM in school education. Descriptive survey method was adopted for the study and a questionnaire comprising of 18 items was developed by using the Google form to collect data from the prospective teachers. Due to the ongoing pandemic of COVID -19, convenience sampling method was used in the study for sample selection. A total number of 38 prospective teachers participated in the study. The finding reveals that only 63.2% of the samples were familiar with STEAM. However, the prospective teachers were found to be optimistic about integrating STEAM in school education. Lack of resources, inadequate no. of well trained teachers and lack of STEAM-based curriculum in the pre-service teacher education programmes, less awareness among the people were reported as some of the major challenges for STEAM integration.

Keywords- STEAM, STEAM integration, school education, teacher education, prospective teachers, experiential learning.

*Research Scholar, **Professor
RIE, Bhubaneswar, Odisha



प्रधान/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022

2021

ISSN 0971 - 9008

Staff and Educational Development International

VOLUME 24

NUMBER 2

May 2021

NetSED
network for staff and educational development

ABI
Aravali Books International (P) Ltd.

[Handwritten signature]
[Handwritten signature]
प्रचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar

Metacognitive Skills of Elementary School Learners in Relation to their Ethnicity and Metacognitive Awareness

BHUJENDRA NATH PANDA

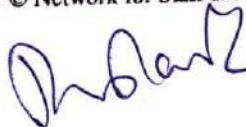
Regional Institute of Education, NCERT, Bhubaneswar, India

Abstract: Metacognitive skills are the techniques or the executive functions for modifying cognitive processes before, during, or after any cognitive action. During learning process cognitive activity and communication can be employed consciously or unconsciously. Executive functions include things like verbal mediation, self-regulation, planning, judgments, and self-monitoring. These skills demonstrate a significant increase throughout late childhood and adolescence, even into adulthood. The executive functions are theoretically much connected to metacognitive awareness of learners about their own cognitive functioning. As knowledge and skills are the major constituents of cognitive functioning, this study perceives metacognitive awareness as the awareness on own knowledge construction process, information processing skills along with individual preferences of learning approaches. The objectives of the study were to examine the differences in metacognitive skills and metacognitive awareness of tribal and non-tribal learners in science at elementary level and to explore the relationship between metacognitive skills and metacognitive awareness of learners in science at elementary level. For the present study, 30 class VIII students were selected purposively from a semi-urban setup of Baripada block of Mayurbhanj district, Odisha. Metacognition skill and metacognition awareness assessment test were used for collection of data for the study. It was found that, among the four components of the meta-cognitive skills, the performance of learners in prediction and monitoring components were at a considerable higher level followed by planning skill was moderately high and the performance of learners in evaluation skill was at a very low level. However, there is no distinct trend in tribal non-tribal difference either in meta-cognitive skill or in meta-cognitive awareness. The components of metacognitive skills and meta-cognitive awareness are functionally interconnected and hence in ideal conditions the interrelationships among the components of metacognition would be of significantly very high order, which was observed in the present study. The correlation between metacognitive skills and metacognitive awareness among the non-tribal learners was stronger than that of tribal learners. The study recommends that metacognitive instructions should be integrated with the learning task over a prolonged period of time in order to be a successful performer in the task there by development of problem solving skills and scientific attitudes among the learners' and hence, improve the academic achievements to a considerable extent.

Keywords: Metacognition, metacognitive skills, metacognitive awareness, ethnicity, problem solving

Introduction

Since the time immemorial the significant response of human beings towards the happenings of nature includes the cautious observation of physical and biological surroundings for identification of relations and patterns, finding out and using new instruments to interact with nature and construction of conceptual models for better understanding of the nature (NCF-2005). Modern Science is the synthesized product of these human experience and efforts of centuries. In a more general way, the basic constituents of science can be understood as the summation of interconnected scientific phenomenon like meaningful observations, searching of patterns and



संचालक/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर/ Bhubaneswar

IISRR-International Journal of Research

A Peer-Reviewed, ISSN numbered Print-in and Online International Journal

Volume -7 * Issue - II * August- 2021

Print Journal ISSN: 2394-6873

Online Journal ISSN: 2394-885X

[<http://www.iisrr.in/journal/current-issue-of-journal>]

A Special Issue based on the
8-Day Hands-on-Activity Based International Virtual Workshop on
"Art of Writing Research Articles : Tools & Techniques"

 **Organized by**
Indian Institute of Social Reform & Research

In Collaboration With



Maulana Azad National Urdu University

A Central University, Hyderabad

<https://manuu.edu.in>



Indian Institute of Social Reform & Research

Registered under Govt. of West Bengal ACT XXVI of 1961;

Registration No- S/2L/ No 10729 of 2013-14

Kolkata, India 700092

Website: www.iisrr.in email: iisrr09@gmail.com





प्राचार्य/Principal
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022



Sagnika Shao
Research Scholar,
Regional Institute of Education,
Bhubaneswar, Odisha
Assistant Professor,
Bijoy Krishna Girl's College
<https://bkrcln.sagnikasahoo1@gmail.com>

Understanding the Importance of Mental Concentration from the Perspective of Positive Psychology and Yoga for Effective Value Incultation among Learners

Sagnika Sahoo

B. N. Panda

Abstract:

The quality of life depends on the quality of experiences, the quality of experiences depends on the quality of intakes through our senses and it is the mind which decides the exposures to the senses. Thus, control of mind is at the core of leading a quality, worthy life. Though value incultation has become a part and parcel of our school curriculum to develop the learners' worthy members of a society and nation, there is some reasons for which the aim of value incultation is not achieved to its optimum level. The present paper is a search – (i) to find out the gap between the knowledge and application of values, (ii) to study the importance of mental concentration from the perspective of positive psychology, and (iii) to find out the techniques of mental concentration through yoga psychology.

Content analysis method has been followed for the present study. The works of Swami Vivekananda, 'Flow' by Mihaly Csikszentmihalyi and 'Yogasutra' by Patanjali have been analyzed to understand the mind, its function and its management. The study has found out a scientific method of mental concentration and mental concentration given by yoga psychology which will help to lead a quality, successful and worthy life on the part of all who ever follows the method of mental concentration.

Key words: Quality life, quality experience, mental concentration, yoga psychology.

1. Introduction :

The education system of ancient India had put great emphasis on the value promotion among the learners. There had been a holistic approach as it was consisted of two types of education- 'para vidya' and 'apara vidya' which helped them to understand their real self so that through self-management they can lead a peaceful and harmonious life. In present times when there is the "erosion of the essential social, moral and spiritual values and an increase in cynicism at all levels" (Education for Values in School-A

Framework, 2016)¹, different commissions, committees and policies like-The National Education Policy (N.E.P Draft-2019)², National Policy on Education (N.P.E- 1968, 1986)³, ; National Curriculum Framework-2005 (N.C.F-

¹ National Council of Educational Research and Training. (2016). *Education for Values in School- A Framework*. New Delhi, India: Gulati, S. & Pant, D.

² Ministry of Human Resource Development Government of India. (2019). *Draft National Education Policy, 2019*. New Delhi, India: Author.

³ Government of India. (1968 & 1986) *National Policy on Education, 1968 & 1986*. New Delhi, India: Author.

माचार्य/ PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar



RIE BHOPAL JOURNAL OF EDUCATION

(A bi-annual Peer Reviewed Journal)

ISSN : 2582-0621

Vol. - 5 Issue-I July-December 2021

TR
E
C
N

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी
NCERT

REGIONAL INSTITUTE OF EDUCATION

(NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING)

Shyamla Hills, Bhopal - 462 002 (M.P.) India

Principal
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022

Recommended Citation :

Sahoo, S. & Panda, B. (2021). *Internet Self-efficacy And Internet Usage of Teacher Educators: A Case Study*. *RIE Bhopal Journal of Education*, 5 (I), 22-30

Internet Self-efficacy and Internet Usage of Teacher Educators: A Case Study

Sanjukta Sahoo*
B.N. Panda**

Abstract

The study intended to explore the internet self efficacy of teacher educators and to analyze the teacher educators' internet usage for academic purpose. The present study was conducted in Bhagabati Devi PTTI, Khakurda, Paschim Medinipur, and West Bengal by using case study method. The investigator had taken 25 teacher educators as a sample on the basis of purposive Sampling. The investigators had used self made internet self efficacy scale and online interview schedule for teacher educators' to collect data for the study. The study found that majority of the teacher educators had higher internet self-efficacy regarding 'Web Browsing', 'Searching Information by using Key Words' and 'Social Media Utilization'. The study also found that male teacher educators had better internet self-efficacy than female teacher educators and teacher educators of B.Ed department had better internet self-efficacy than teacher educators of D.El.Ed department. The study revealed that 60% teacher educators used Google Chrome web browser for academic purpose and 68% teacher educators used social networking sites like Facebook, Instagram, Twitter, You Tube etc. to stay up to date with news and current events.

Keywords: Internet Self Efficacy, Internet Usage, Teacher Educators.

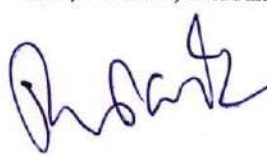

Introduction

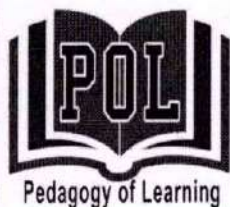
Internet is a worldwide networking system that connects millions of people around the world. These are interconnected networks that make it possible to share information anywhere in the world. Internet self-efficacy alludes to a person's capacity to determine the ability and internet usage to accomplish internet activities autonomously (Kuo et al., 2014). It does not only relate to the ability of a person to perform particular internet-related functions, like writing HTML, using a browser, or uploading files. Alternatively, it evaluates a person's capacity to use web knowledge in a more equitable manner, like obtaining information or resolving problems. Individuals who have no confidence to access the Internet, or who are frustrated using the Internet, can be considered to have poor self-efficacy values. People with low internet self-efficacy are less likely than those with strong internet self-efficacy to adopt and utilize the internet (Bandura, 1982).

*Ph.D. Scholar

**Dean of Research

RIE, NCERT, Bhubaneswar, Odisha



PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022



PEDAGOGY OF LEARNING

International Refereed/ Peer Reviewed Journal of Education

Vol. 7 (3) July 2021, 21-28, E-ISSN: 2395-7344, P-ISSN: 2320-9526

Abstracted and indexed in: Google Scholar, Research Bib,

International Scientific Indexing (ISI), Scientific Indexing Services

(SIS), WorldCat, Cite Factor, Impact Factor: 0.787(GIF)

Website: <http://pedagogyoflearning.com>

Recommended citation for this Article:

Sahoo, S. & Panda, B. N. (2021). Factors and effects of value education among adolescent learners. Pedagogy of Learning, 7 (3), 21-28. Available at: <http://pedagogyoflearning.com>.

Factors and Effects of Value Education among Adolescent Learners

Sagnika Sahoo

Doctoral Research Scholar (Education), Utkal University, Bhubaneswar, Odisha, India. E-mail: sagnikasahoo1@gmail.com

B. N. Panda

Professor of Education and Dean, Research, Regional Institute of Education, NCERT, Bhubaneswar, Odisha, India. Email id: bnpanda38@hotmail.com

Article DOI: 10.46704/pol.2021.v07i03.003

Corresponding Author: Sagnika Sahoo. E-mail: sagnikasahoo1@gmail.com

Article Publication Date: 30 July 2021

ABSTRACT

Adolescent period is the period of transition from childhood to adulthood when they face a vast surge of physical, social, cognitive and emotional changes. Education particularly value education plays very significant role to provide them guidance in order to overcome the topsy-turvy condition of life and guided to make the learners a worthy, resourceful, responsible citizen of a country. But for the implementation of value education a proper understanding of both the means and end of value education is important. So, the present study has revolved around the objectives- i) to study the factors influencing value inculcation among the learners, and ii) to analyze the effect of value education on adolescent learners' behavior. It was found from the study that the school curriculum, teaching-learning process and the teacher are the most crucial factors that influence the value inculcation and promotion among the learners. The studies have shown that value education has a great positive influence on the school climate, students' behavior, students' discipline and attendance, resolving their personal and social problems, etc. So, value education is of utmost importance as it is the need of the hour.

Keywords: Value Education, School Curriculum, Teaching-Learning Process, School Climate, Students' Behavior.

BACKGROUND OF THE STUDY

Adolescents are the most vulnerable section as they are easily influenced by the environment. On the one hand it is the period that is marked by rapid growth and development as it laid the foundation of future roles in life, duties and responsibilities, mental set up, etc. which is difficult to change in the later years of life i. e. during adulthood. On the other hand, this is the most dangerous period as it is a period of transition from childhood to adulthood. In the vast surge of physical, psychological change in life, the adolescents suffer from a crisis which is termed by Erikson (1950) as 'Identity Crisis'. This is the period of high risk because affective disturbance, anti-social behavior,

[Signature]
PRINCIPAL
 क्षेत्रीय शिक्षा संस्थान
 Regional Institute of Education
 भुवनेश्वर / Bhubaneswar-751022



Sagnika Shao
Research Scholar,
Regional Institute of Education,
Bhubaneswar, Odisha
Assistant Professor,
Bijoy Krishna Girl's College
<https://bkgc.in>
sagnikasahoo1@gmail.com



Prof. B. N. Panda
Professor & Dean of Research,
Regional Institute of Education,
NCERT, Bhubaneswar, Odessa
<http://www.riebbs.ac.in/>
bnpanda38@hotmail.com

Understanding the Importance of Mental Concentration from the Perspective of Positive Psychology and Yoga for Effective Value Inculcation among Learners

Sagnika Sahoo

B. N. Panda

Abstract:

The quality of life depends on the quality of experiences, the quality of experiences depends on the quality of intakes through our senses and it is the mind which decides the exposures to the senses. Thus, control of mind is at the core of leading a quality, worthy life. Though value inculcation has become a part and parcel of our school curriculum to develop the learners' worthy members of a society and nation, there is some reasons for which the aim of value inculcation is not achieved to its optimum level. The present paper is a search – (i) to find out the of gap between

the knowledge and application of values, (ii) to study the importance of mental concentration from the perspective of positive psychology., and (iii) to find out the techniques of mental concentration through yoga psychology. Content analysis method has been followed for the present study. The works of Swami Vivekananda, 'Flow' by Mihaly Csikszentmihalyi and 'Yogasutra' by Patanjali have been analyzed to understand the mind, its function and its management. The study has found out a scientific method of mental concentration and mental concentration given by yoga psychology which will help to lead a quality, successful and worthy life on the part of all whoever follows the method of mental concentration.

Key words: Quality life, quality experience, mental concentration, yoga psychology.

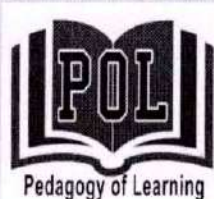
1. Introduction :

The education system of ancient India had put great emphasis on the value promotion among the learners. There had been a holistic approach as it was consisted of two types of education- 'para vidya' and 'apara vidya' which helped them to understand their real self so that through self-management they can lead a peaceful and harmonious life. In present times when there is the "erosion of the essential social, moral and spiritual values and an increase in cynicism at all



2021

OPEN ACCESS

**PEDAGOGY OF LEARNING****International Refereed/ Peer Reviewed Journal of Education**

Vol 7 (1) Jan 2021, 31-38, E-ISSN: 2395-7344, P-ISSN: 2320-9526

Abstracted and indexed in: Google Scholar, Research Bib, International Scientific Indexing (ISI), Scientific Indexing Services (SIS), WorldCat, Cite Factor, Impact Factor: 0.787(GIF)Website: <http://pedagogyoflearning.com>**Recommended citation for this Article:**

Sahoo, S., & Panda, B.N. (2021). Factors affecting teacher educators' technological usage in teaching learning process at secondary level. *Pedagogy of Learning*, 7(1), 31-38. <http://pedagogyoflearning.com>.

Factors Affecting Teacher Educators' Technological Usage in Teaching Learning Process at Secondary Level

Sanjukta Sahoo

Ph.D. Scholar (Education), Utkal University, Bhubaneswar, Odisha, India.

Email: sanjuktasahoo52@gmail.com**B.N. Panda, Ph.D.**

Professor and Dean, Research,

Regional Institute of Education, NCERT, Bhubaneswar, Odisha, India.

Email: bnpanda38@hotmail.com

Article DOI: 10.46704/pol.2021.v07i01.004

Corresponding Author: Sanjukta Sahoo, Email: sanjuktasahoo52@gmail.com**Article History:** Received in Revised form: 10 January 2021, Accepted: 25 January 2021, Published: 30 January 2021**ABSTRACT**

Teacher educators' technological usage provides opportunities to set up innovative teaching methodologies and interesting material that generates an interest in trainee students. This study tries to determine the various factors that affecting technological usage of teacher educators in teaching learning process. 5 Points Likert Scale-based descriptive survey was conducted at 10 secondary teacher training institutes across the Paschim Medinipur District. The researcher had taken 60 teacher educators as a sample on the basis of purposive Sampling. Confirmatory factor analysis was used to present the results of the study. The study findings revealed that a high positive correlation (+0.95) existed between skill and personal related factor but a negative correlation (-0.07) existed between economic support and organisation related factor.

Keywords: Teacher Educators, Technological Usage, Factors**INTRODUCTION**

Technology is a significant tool for promoting new modes of teaching and learning. Effectiveness of technology is a very critical concern in teacher education. The use of technology provides an effective learning atmosphere and it renovates the teaching and learning process in which trainee students' deal with knowledge in an energetic, self directed and positive way. Technology should be used to improve the capacity of trainees to collaborate, interact, overcome the problem and prepare for life. Teacher educators play significant role in the teaching-learning paradigm shift. They have to consider the technology's future role in education. In order to make use of technologies in the





Education India



A Quarterly Refereed Journal
of Dialogues on Education
(ISSN 2278-2435)


Vol.10, Issue-4, November 2021

प्रमुख/PRINCIPAL
क्षेत्रीय शिक्षा समिति
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022

Index

Sl. No.	Paper Title	Author	Page No.
1.	Undergraduate Science Students' Conceptions of Nature of Science	Dr. Mamta Singhal	5-12
2.	Self-Esteem of Post Graduate Students in Manipur	Dr. Laisom Sharmeswar Singh Ngangbam Devkanta Singh	13-18
3.	Cognitive Reasoning Processes and Identity Processing Styles: Theoretical Overview of Their Relationship and Its Implications	Manpreet Kaur Suninder Tung	19-27
4.	Inclusive Higher Education for Persons with Disabilities in India: Analysis of UGC Initiatives	Dr. Upneet Kaur Mangat	28-34
5.	Construction of Student Engagement Scale for Activity Based Teaching-Learning Approach	Pranjal Das Dr. Nil Ratan Roy	35-39
6.	Attitude and Perception towards Institutional Social Responsible Practices in Higher Educational Institutions	Geetha A J Dr. Sathyaprakash. M.R	40-47
7.	Academic Stress, Academic Hardiness, Self-Regulated Learning and Educational Aspirations in High School Students	Vinita Chabria Asma Khader Dr. Nandini Sanyal Dr. Swati Agarwal	48-58
8.	Burnout of College Teachers with Reference to Nagaland	Renemsongla Aier	59-68
9.	Emerging Educational Research Trends in 21 st Century	Dipak Bhattacharya, Sanjukta Sahoo, Prof. B. N. Panda	69-79
10.	The Glaring Crisis of 'Missing Children' from Schools	Dr. Jyoti Dalal	80-82
11.	Challenges Faced by Orphans in Kashmir: An overview	Ruqia Mohi-ud-Din Dr. Firdous Ahmad Sofal	83-89
12.	How Do Adolescents Conceptualize Happiness? A Qualitative Inquiry	Sandeep Kaur Sangeeta Chauhan	90-100
13.	Anger Management in Adolescents with Oppositional Defiant Disorder and Conduct Disorder Using Strategically Aligned Guidance and Counselling Package	Amandeep Kaur Dr. Jubilee Padmanabhan	101-109
14.	Secondary Education, Policy Initiatives and Status of RMSA in Eastern U.P : An Analysis	Dr. Sunita Singh	110-120

Education India Journal: A Quarterly Refereed Journal of Dialogues on Education, A UGC-CARE List Journal, ISSN 2278-2435, Vol. 10, Issue-4 November-2021. Page 2


Regional Institute of Education,
 भुवनेश्वर / Bhubaneswar-751022

9. Emerging Educational Research Trends in 21st Century

Dipak Bhattacharya*

*Research Scholar, Department of Education, Regional Institute of Education, NCERT,
Bhubaneswar, Email: dipakbhattacharya7@gmail.com

Sanjukta Sahoo**

**Research Scholar, Department of Education, Regional Institute of Education, NCERT,
Bhubaneswar, Email: sanjuktasahoo52@gmail.com

Prof. B. N. Panda***

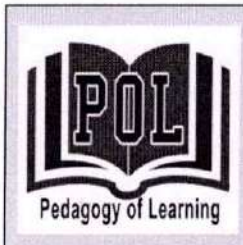
*** Professor of Education & Dean of Research, Regional Institute of Education, NCERT,
Bhubaneswar, Email: bnpanda38@hotmail.com

ABSTRACT

Educational research has tremendous scope in the present society. It shows eye opening overview of recent educational structure. The objectives of the study were to find out the recent educational research trends on the basis of theoretical and practical perspectives, to explore the drawbacks in educational research and to find out the recommendations for improvement of educational research. It's a review based study. The researcher has collected supportive research evidences from secondary sources. The researcher had reviewed five educational research papers and one web-based data in this study. The study found that recently technology based educational research is given more priority by the neo-researchers than others. On the other hand, the study also highlighted that practice based educational research studies like action research, applied research have been conducted in the present context than theoretical research studies. The study also revealed that there is a lack of consistency in the results of educational research and different researchers have different viewpoints in the same topic in this research. The study recommended that educational researcher must have to be conscious about local, national and global issues and problems.

Education India Journal: A Quarterly Refereed Journal of Dialogues on Education, A UGC-CARE List Journal, ISSN 2278-2435, Vol. 10, Issue-4 November-2021. Page 69


प्रधान/PRINCIPAL
क्षेत्रीय शिक्षा संस्थान
Regional Institute of Education
भुवनेश्वर / Bhubaneswar-751022



PEDAGOGY OF LEARNING
International Refereed/ Peer Reviewed Journal of Education
 Vol 7 (3) July 2021, 08-20, E-ISSN: 2395-7344, P-ISSN: 2320-9526
Abstracted and indexed in: Google Scholar, Research Bib,
 International Scientific Indexing (ISI), Scientific Indexing Services
 (SIS), WorldCat, Cite Factor, Impact Factor: 0.787(GIF)
 Website: <http://pedagogyoflearning.com>

Recommended citation for this Article:

Bhattacharya, D., Sahoo, S. & Panda, B. N. (2021). Professional development for teachers in respect to national and international perspectives. *Pedagogy of Learning*, 7 (3), 08-20. Available at: <http://pedagogyoflearning.com>.

Professional Development for Teachers in Respect to National and International Perspectives

Dipak Bhattacharya

Research Scholar (Education), Utkal University, Bhubaneswar, Odisha, India. Email: dipakbhattacharya7@gmail.com

Sanjukta Sahoo

Research Scholar (Education), Utkal University, Bhubaneswar, Odisha, India. Email: sanjuktasahoo52@gmail.com

B. N. Panda

Professor of Education & Dean, Research, Regional Institute of Education, NCERT, Bhubaneswar, Odisha, India. Email: bnpanda38@hotmail.com

Article DOI: 10.46704/pol.2021.v07i03.002

Corresponding Author: Dipak Bhattacharya, Email: dipakbhattacharya7@gmail.com

Article Publication Date: 30 July 2021

ABSTRACT

Professional development provides a framework that promotes and facilitates teachers to learn the necessary skills, competences, values and beliefs for their anticipated professional role in classroom, school and community. The present study intended to ascertain different strategies of professional development for teachers as per NCFTE-2009 and NEP-2020. The study also discussed about the concept and importance of professional development for teachers and highlighted the strategies of professional development for teachers in some countries like Australia, Finland, Japan, Norway, Taiwan and USA of the world. The present study discussed about 20 strategies of professional development for pre-service and in-service teachers as per NCFTE-2009 and 36 strategies of professional development for pre-service and in-service teachers as per NEP-2020 in respect to national (India) perspectives. The present study found different uniqueness and strategies in teachers' professional development in different countries of the world. Investigators of the present study believed that professional development of teachers in Japan is highly standard in comparison to other countries.

Keywords: International Perspectives, National Perspectives, NCFTE-2009, NEP-2020, Professional Development, Teachers.

प्रचार्य/ PRINCIPAL
 क्षेत्रीय शिक्षा संस्थान
 Regional Institute of Education
 भुवनेश्वर / Bhubaneswar-751022

Building a Learning Organization: Towards Developing a More Holistic Teacher Education Institutions

Amlesh Kumar, Research Scholar, RIE (NCERT), Utkal University, Bhubaneswar

Prof. B N Panda, Dean (Research), RIE (NCERT), Bhubaneswar

Abstract

The change is the only permanent thing in this world. Recent advancement in the field of teaching-learning practices forces every teacher education institutions to always keep changing and innovating. Teacher education institutions that are not capable to innovate and alter them will find themselves in trouble by facing increasingly tough competition from other institutions. The pressure caused by the constant need of innovation will force teacher education institutions to become a learning organisation. As we know learning organization is a philosophical thought given to an organization which facilitates the learning of all its members so that the organization can continuously transform itself. By building a Learning Organisation recent teaching-learning advancements can be adopted by the teacher education institutes. Through this the desired learning outcome and opportunity of institutional members to keep on learning will also enhanced. By applying the Learning Organisation structure in teacher education institutions the satisfaction of the every stakeholder will be increased. In the process of building up a learning organisation the administration, management, teachers and students have key role to play. Apart from that the transformative educational leadership is needed that is fully committed to building a learning organization towards developing more holistic teacher education institutions.

Keywords: Learning Organization, Holistic, Learning, Building, Teacher Education Institutions.

Introduction

Meeting the emerging need of 21st century teaching learning process, there is a strong need to building teacher education institutions as learning organizations. Building a Learning organization transform learning outcomes of all its members and create a conducive teaching-learning environment in teacher education institutions. Building a learning organizations facilitates learning of all its members and this aim is to continuously transform itself in line with the environment needs (Pedlar *et al.*, 1991). It is all about collectivism and shared values or principles (Watkins & Marsick, 1993; Jones, 1995). In the learning organization a group of people working together collectively to enhance their capacities to create results they really care about. Building a learning organization is also concerned that how to bring change in the behaviour of different members of organization and bring it to more closely with desired state (Tsang, 1997). Empowerment is believed to be an important characteristic of learning organizations (Goh, 1998; Hill, 1996).

The concept of a learning organization was first developed by Peter M. Senge in 1990. In 1990s learning organization became a way out for organizations to survive. Dr. Senge was a senior lecturer of leadership and sustainability at MIT's Sloan School of Management. He was the founding chairman of the Society of Organizational Learning. His book *The Fifth Discipline* discussed learning organizations. According to Dr. Senge, a learning organization is an organization that encourages and facilitates learning in order to continually transform itself to survive and excel in a rapidly changing business environment. The characteristics of a learning organization will help managers and employees meet the challenges by providing them tools to pursue a creative vision, learn and work together effectively, and adapt to change.

Learning organizations are not built overnight. Most successful examples are the products of carefully cultivated attitudes, commitments, and management processes that have accrued slowly and steadily over time. Teacher Education institutions have the potential to cultivate learning organization ideas. One of the most challenging aspects of implementing learning organizations is reaching the stage where organizational members implement the discipline of systems thinking. Organizations where people continually expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.

The learning organization sees the productive organization as not only a centre of work, but also a centre of learning. It connects learning to productive capacity, performance, continuous improvement, and competitive advantage (Popper & Lipshitz, 1998). Learning is the key to success some would even say survival in today's organizations. In a learning organization, people learn from failures and successes, and use them as opportunities to improve systems, processes and structures. Learning organizations not only encourage learning from past experiences, but also have mechanisms or systems that will allow for this to happen. It is needed to view failures as opportunities for learning, by structuring the 'mistake' in a positive way for employees to learn (Garvin, 1993).



Regional Institute of Education
Bhubaneswar-751022