



Department Name : Extension Activity

Meeting date | time 9/19/2022 4:00 PM | Meeting location NS Classroom

Meeting called by	Dr.Afeef Tharavattath	Attendees
Type of meeting	Extension & Natura	Dr. Afeef Thravattath
Facilitator	Dr. Umder Farooqu TK	Mr. Rishad KT
Note taker	Ms. Shabeena	Members of Natura
Timekeeper	Ms. Prajitha	NS First Year Student Representatives

Meeting Agenda

Date 19/09/2022 | Time allotted 1 | From 4:00 pm To 4.30 pm | Presenter Dr. Afeef Tharavattath

- To conduct a 'Nature Walk'- A bio diversity field trip to Kadalundi Community Reserve, Calicut in association with Natura of FTC on 21st September 2022.



In Association With



'Natura' Bhoomitrasena Club
Farook Training College

NATURE WALK
Estuarine Biodiversity Trip
Kadalundi Community Bioreserve

21/09/22 | Wednesday

Report

Bhoomithrasena Nature Walk 21st September 2022

A field trip named as ' Nature Walk ' was conducted by 'Symbios' Natural Science Association and 'Natura' Bhoomitrasena Club on 21st September 2022. A team of 15 students accompanied by Dr.Afeef Tharavattath, Associate Professor in Natural Science and Coordinator of Bhoomitrasena visited the Kadalundi estuary and community Bioreserve . Ms. Shabana.M and Dr. Prajitha delivered lectures on Estuarine biodiversity



Gallery





Department Name: IQAC

Meeting date | time 9/15/2022 3:00 PM | Meeting locations IQAC Room

Meeting called by Dr. Aseel Abdul Wahid

Type of meeting IQAC

Facilitator Dr. Vijayakumari K

Note taker Dr. Mumthas NS

Timekeeper Dr. Umer Farooque TK

Attendees

Dr. T Mohammed Saleem

Dr. Aseel Abdul Wahid

Dr. K Vijayakumari

Members of IQAC

Meeting Agenda

Date 15/09/2022 | Time allotted 1 | From 300 pm To 3.30 pm | Presenter Dr. Aseel Abdul Wahid

- To conduct the Sixth Frontier Lecture Series on 'Recovery Oriented Education Programme, OOEP-What, Why and How?' organize by IQAC Farook Training College on 25th September 2022, 10:00 al at MMI Hall. Prof. Raju C Chacko, Mental Health Clinician will be the resource person.

FAROOK TRAINING COLLEGE
 Research Centre in Education, Affiliated to University of Calicut
 Recognised by UGC & NCTE (Accredited by SAAC at A+ grade with CGPA 3.39)
 Farook College P.O, Kozhikode, 673632 (PIN)

INTERNAL QUALITY ASSURANCE CELL (IQAC)

F- TALK
 FAROOKABAD TALK ON EDUCATION
 INTERNATIONAL FRONTIER LECTURE SERIES

Recovery Oriented Education Programme (ROEP)
What? Why? and How?

2022 SEPTEMBER 26
 MONDAY
 10.00 A.M
 FTC MMI HALL

EXPERT TALK
RAJU CHACKO
 Mental Health Clinician
 Grampion Health, Australia
 Former Lecturer
 Victoria University, Australia

FTCIA | Farook Training College
 Innovative Academia

Frontier Lecture Series 6- Recovery Oriented Education Programme, ROEP- What, Why and How?
26th September 2022

As part of Farook Training College's F-Talk or Farookabad talk on education international frontier lecture series, respected expert talk Raju Chacko sir who is mental health clinician Grampian health -Australia, former lecturer of Victoria university- Australia also spoke on the topic of Recovery Oriented Education Program (ROPE) What? Why and How. It started at 10:00 am in the college MMI hall under the leadership of honorable Farooq Training College Principal Dr. T Muhammed Saleem. The Recovery Education Program at the Center for Psychiatric Rehabilitation is an adult education program that offers students the opportunity to choose a range of wellness courses that support their rehabilitation and recovery efforts. The programme was coordinated by Dr. Aseel Abdul Wahid, Assistant Professor, Farook Training College and the program ended with a vote of thanks by M.Ed second year student Mr. Anoop



Gallery





Prepared by Media Cell, FTC



Department Name : Research & IQAC

Meeting date | time 9/20/2022 3:00 PM | Meeting location IQAC Room

Meeting called by Dr. Umer Farooque TK

Type of meeting Research & IQAC

Facilitator Dr. T Mohammed Saleem

Note taker Mr. Ravishanker MP

Timekeeper Dr. Mumthas N.S

Attendees

Dr. T Muhammed Saleem

Dr. Umer farooque TK

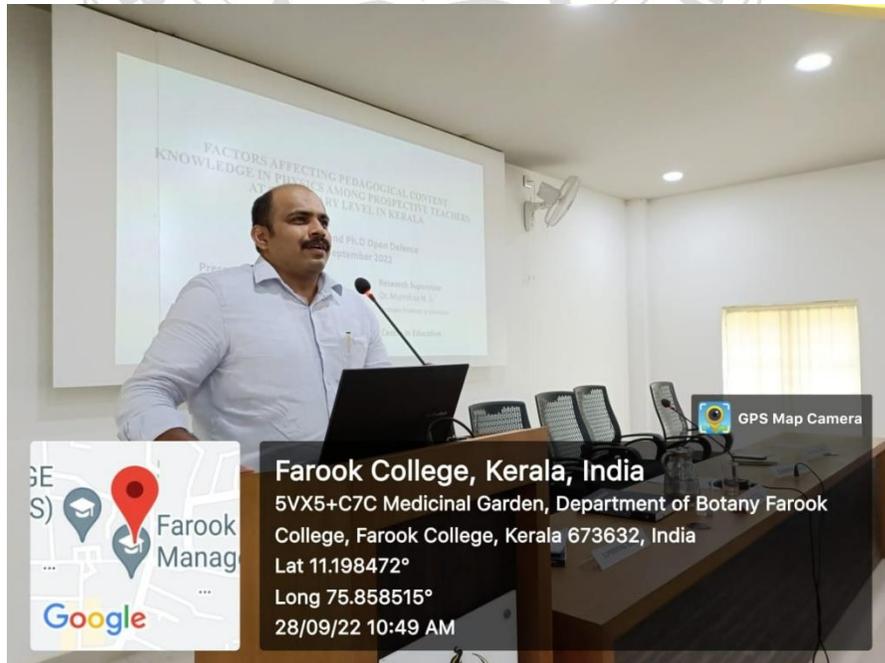
Dr. Mumthas N.S

Mr. Ravishanker M.P

Meeting Agenda

Date 20/09/2022 | **Time allotted** 1 | **From** 300 pm **To** 3.30 pm | **Presenter** Dr. Umer Farooque TK

- To conduct PhD open defense of Mr. Ravishanker M.P (Under the guidance of Dr. Mumthas N.S, Associate Professor, Farook Training College) on 28th September 2022 at MMI hall.



Report

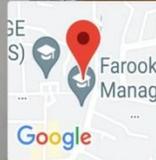
PhD Open Defense of Mr. Ravihanker M.P 28th September 2022

The open defence/ viva-voce examination of Mr. M P Ravishanker, part time scholar of FTC under the guidance of Dr. Mumthas N S Associate Professor, Farook Training College, was conducted successfully on 28th September 2022 Wednesday at 10am at Multimedia Interactive Hall, offline mode in the presence of the Chairperson Prof. (Dr.). T V Thulasidharan, Professor (retd.) M G University. Dr. T. Muhammed Saleem, Principal, FTC presented the welcome note followed by the Introductory address by the Supervisor Dr. Mumthas N S, Associate Professor, FTC, research centre in education.

M P Ravishanker presented his study titled "factors affecting pedagogical content knowledge in physics among prospective teachers at secondary level in Kerala." Faculty members, academicians and Research scholars of various universities and institutions were present in the session. The presentation was followed by reflections from participants. The board of adjudicators recommended the thesis for publication. The program came to an end by 1.00 pm. Mr. M P Ravishanker delivered the vote of thanks.



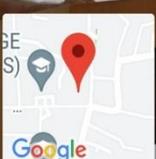
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Farook College, Kerala, India
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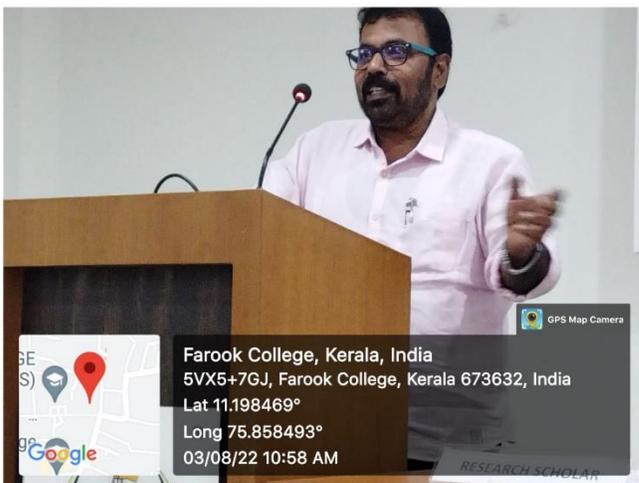
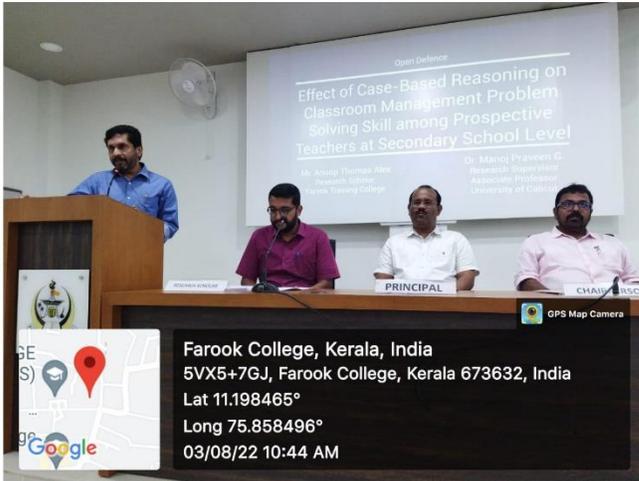
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Appendix



FAROOK TRAINING COLLEGE

[RESEARCH CENTRE IN EDUCATION, UNIVERSITY OF CALICUT]
Govt. Aided College Affiliated to Calicut University and Recognized by NCTE & UGC

FAROOK COLLEGE, P.O.
KOZHIKODE, KERALA - 673632

Accredited by SAAC at A+ Grade with CGPA 3.39 (2021-26)

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Estd. 1961

Re-accredited by NAAC at A Grade with CGPA 3.54 (2012-17)

INVITATION

I would like to invite your kind attention that the Viva-voce and Open Defence on the Ph.D thesis of **Mr.M.P.Ravishanker, Part Time Research Scholar**, under the guidance of Dr.Mumthas.N.S, Associate Professor, Department of Education, University of Calicut will be held as detailed below:

Title of the study : **FACTORS AFFECTING PEDAGOGICAL CONTENT KNOWLEDGE IN PHYSICS AMONG PROSPECTIVE TEACHERS AT SECONDARY LEVEL IN KERALA**

Date and Time : **28th September 2022 (Wednesday) at 10.00 am**

Venue : **Multi Media Hall, Farook Training College**

On behalf of Farook Training College, I solicit your esteemed presence and active participation in the programme.

The thesis will be available in the College Library for reference on 26th September 2022.

Place : Farook College

Date : 16.09.2022

Copy to:-

1. Teachers and students, Department of Education, University of Calicut
2. Teachers and students, School of Pedagogical Sciences, Kannur University
3. Teachers and students, School of Pedagogical Sciences, MG University
4. Teachers and students, Department of Education, University of Kerala
5. Teachers and students, Department of Education, Central University of Kerala, Kasargod
6. Teachers and students, Govt. Brennen College of Teacher Education, Thalassery
7. Teachers and students, Govt. College of Teacher Education, Kozhikode
8. Teachers and students, Institute of Advance Studies in Education, Thrissur
9. Teachers and students, Department of Education, NSS Training College, Ottapalam
10. The Director and Staff, Directorate of Research, University of Calicut.
11. Teachers and students, Farook College
12. Teachers and students, RUA College, Farook College

FACTORS AFFECTING PEDAGOGICAL CONTENT KNOWLEDGE IN PHYSICS AMONG PROSPECTIVE TEACHERS AT SECONDARY LEVEL IN KERALA

Research scholar
M P Ravishanker

Supervisor
Dr. Muthas N.S

Background of the study

Scientific literacy of a country determines its growth and development - both economic and social. Education commissions in India since independence have coherently recommended science teachers who actively engage students in a way that equips them to: apply scientific principles and processes to decision making; understand the natural world; and consider careers in science, technology, engineering, or mathematics (NEP, 2020). Only less than 16.04% of students opt for science subjects for under graduate programme (MHRD, 2015-16). Similarly, students those opt science after tenth drops by more than 50%. To be effective and successful, teachers at the school level handling science subjects must have strong subject matter knowledge, understanding of the nature of science, capacity to transform subject matter knowledge into meaningful learning experiences for students. Teachers are a critical factor in student learning. Hence, teachers must be at the centre of the fundamental reforms in the education system. The education system should focus on helping re-establishing teachers, at all levels, as the most respected and essential members of our society. We have to do everything to empower teachers and help them to do their job as effectively as possible. Shortage of teachers adequately prepared to teach physics is a major issue in science education. Physics teachers must have specific skills and capacities. Preparation of physics teachers should be a purposeful intellectual endeavour. Need to formulate our teacher education programme for moulding efficient and professional science teachers.

Pedagogical Content Knowledge

"An independent knowledge base for teaching that is mixture of content and pedagogy to understand how certain topics and problems are organized, presented and modified according to different population of learners and presented for instruction." (Shulman, 1987)

In this study PCK in Physics is the score obtained by the prospective secondary school teachers in the PCK test, comprising Content Knowledge, Pedagogical Knowledge and Contextual Knowledge in the area mechanics.

Variables of the study

Dependent variable- Pedagogical Content Knowledge (PCK) in Physics

Independent variables- Pre-Internship Learner Engagement, Opportunities to achieve Learning Objectives, Opportunity to Learn Skills, Engagement during School Internship, Accomplishments during School Internship, Role of Teacher Educator, Teacher Motivation, Attitude towards Science and Self-Efficacy.

Classificatory variables- Gender and Level of Physics studied

Methodology

Survey method

- Conceptualisation
- Development of research tools
- Data collection
- Data Analysis

Sample

Prospective secondary school teachers (N=633)

Tools

1. PCK Test
2. Curricular Experiences Rating Scale
3. Scale on Motivational Factors in Science Teaching

Statistical techniques used: Preliminary Analysis, 't' test, Pearson's product moment coefficient of correlation, Multiple regression analysis

Objectives

1. To find out the extent of Pedagogical Content Knowledge (PCK) in Physics among prospective secondary school teachers and their sub-groups based on
 - a. Gender, and
 - b. Level of Physics studied.
2. To find out the extent of the relationship between each of the institutional and learner related variables and PCK in Physics among prospective secondary school teachers and their sub-groups based on
 - a. Gender, and
 - b. Level of Physics studied
3. To identify the significant institutional and learner related variables in predicting PCK in Physics among prospective secondary school teachers and sub-groups based on
 - a. Gender, and
 - b. Level of Physics studied
4. To develop a regression equation for predicting PCK in Physics among prospective secondary school teachers and their sub-groups with the select institutional and learner related variables.

5. To find out the relative efficiency of the select institutional and learner related variables in predicting PCK in Physics among prospective secondary school teachers and their relevant sub-groups.

Hypotheses

1. There will be a significant relationship between each of the select variables and PCK in Physics for the total group and sub-groups based on:
 - a. Gender, and
 - b. Level of Physics studied
2. PCK in Physics among prospective secondary school teachers can be significantly predicted from the select set of institutional and learner related variables.

Findings

1. The study findings revealed that the extent of PCK in Physics among prospective secondary school teachers is meagre. The same trend is repeated in the case of components also. Student teachers' mean scores are nearly half of the maximum score or below half for all three components: Content Knowledge, Pedagogical Knowledge, and Contextual Knowledge. Among the select sample, the student teachers who have done post-graduation in Physics have higher PCK in Physics, followed by those who have graduated with Physics as the main subject.
2. A significant but low positive correlation exists between each of the select institutional and learner related factors and PCK in Physics among prospective secondary school teachers. The highest correlations are found between the variable Attitude towards Science followed by Opportunity to achieve Learning Objectives and Opportunity to Learn Skills. Teacher Motivation has the most negligible correlation with prospective secondary school teachers' PCK in Physics.
3. The study findings also revealed that prospective secondary school male teachers have greater PCK in Physics (total and component-wise) than their female counterparts and the difference is significant.
4. The study's findings also revealed a significant and positive correlation between each of the select institutional and learner-related factors and PCK in Physics in the subgroups based on Gender. For female prospective secondary school teachers, the highest correlations are found between the variables Attitude towards Science and PCK in Physics, followed by Opportunity to achieve Learning Objectives and Opportunity to Learn Skills.
5. There is a significant gender difference in the extent of the relationship between Pre-Internship Learner Engagement, Engagement during School Internship and Accomplishments during School Internship and PCK in Physics. The relationship between the above three variables and PCK in Physics is higher among male prospective secondary school teachers than their counterparts.
6. A significant and positive correlation exists between Attitude towards Science, Opportunity to achieve Learning Objectives, Self-Efficacy, Teacher Motivation, Engagement during School Internship, Opportunity to Learn Skills, Pre-Internship Learner Engagement and PCK in Physics in the sub-groups who have studied Physics as their main subject for graduation. The highest correlations are found between the variable Attitude towards Science followed by Opportunity to achieve Learning Objectives and Self-Efficacy. Role of Teacher Educator and Accomplishments during School Internship has no significant relation with PCK in Physics.
7. A significant, positive but low correlation exists between Pre-Internship Learner Engagement, Opportunity to achieve Learning Objectives, Opportunity to Learn Skills, Engagement during School Internship, Attitude towards Science, Role of Teacher Educator, Accomplishments during School Internship and PCK in Physics in the sub-group who have done post-graduation in Physics. The highest correlations are found between the variable Pre-Internship Learner Engagement followed by Opportunity to achieve Learning Objectives and Opportunity to achieve Learn Skills. Teacher Motivation has no significant relation with PCK in Physics.
8. PCK in Physics among prospective secondary school teachers can be predicted from three Variables viz., Attitude towards Science, Opportunity to Learn Skills and Pre-Internship Learner.
9. PCK in Physics of prospective secondary school teachers who have done their post-graduation in Physics can be predicted from three Variables viz., Pre-Internship Learner Engagement, Engagement during School Internship and Opportunity to Achieve Learning Objectives.
10. PCK in Physics of prospective secondary school teachers who have done their graduation with Physics as a subsidiary subject can be predicted from two Variables viz., Attitude towards Science and Opportunity to Learn Skills.

Educational implications

1. Pedagogical Content Knowledge be attended
2. Ample opportunities focusing positive attitude, skills and professionalism
3. Subject matter knowledge is the key
4. Courses focused on subject-specific pedagogical studies
5. Focus on pre-internship learner engagement
6. Make the learning objectives precise and useful
7. Field experiences and internship play a great role