

# **SLEPI: A MATHEMATICAL APPROACH FOR SERVICE-LEARNING PEDAGOGY AND BEST PRACTICE PREDICTION**

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## **Abstract**

Empowering higher education stream through service-learning is being steered by the SL faculty and University students in many countries for the past several years. Union Christian College (10° 7' 30.65"N, 76° 20' 3.32"E), Aluva (UCC) India, is no exception for this and is in the stream for over a decade but has a unique feature that here SL is practiced out of academic hours. The sample data considered for the present study is obtained from 3 years of service learning projects from November 2015 to October 2018. Data from service learning projects funded by United Board for Christian Higher Education in Asia, which covered environment, interreligious understanding, and SL with blind students, are considered for interpretation.

SL at coastal region of central Kerala was done for documentation of local knowledge on fishing, food and lifestyle, health and hygiene, flora and fauna, level of ecological degradation, problems encountered during exigencies and traditional methods in disaster mitigation, equipping the student groups of coastal area with local knowledge, methods of disaster mitigation during high waves, cyclones and other casualties. Service-Learning with the blinds includes Onam (traditional festival) celebrations with blind, 'Prepare the Ground for the Blind', 'How to help a blind', 'Go Home With a Cake', 'Experiencing herbal plants' by blind students, Maintenance of the multi purpose play ground for the Blind 'Guruvandhanam' (Reverence for the Teacher) and 'Talking Books' – Library center for the blind.

Data collection was performed using questionnaires of unbiased type and questions were given with equal weightage, which facilitates computational ease. Service-Learning Efficiency Predictor Index (SLEPI) is the sum of FPP (Fraction of SL participants with positive feedback, FPN (Fraction of SL participants with negative remarks) and FPNC (Fraction of participants with no comments). Through repeated study and implementation it is interpreted that when  $FPP / FPP + FPN + FPNC > 0.5$ , SL is successful and when  $FPN + FPNC / FPP + FPN + FPNC < 0.5$  SL is NOT successful or not worthy in future, or needs modification. It is further noted and recommended that when  $FPN + FPNC / FPP + FPN + FPNC < 0.1$ , the study need not be considered in future. Thus it is predicted that higher SLEPI value denotes success of SL study.

**Key Words:** SLEPI, Service-Learning, UCC