Chapter 3

Plan
and
Procedure

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3.0 Introduction

It is a descriptive study wherein an attempt was made by the investigator to describe the status of candidates on the selected variables and the relative predictivity of these variables with respect to Teacher Education Proficiency represented by the M.Ed. at end scores, the dependant variable.

3.1 Population

Population for the study was constituted of all the M.Ed. students enrolled for the programme in India during the academic year 2008-2009.

3.2 Sample

Sample for the study was constituted of all the M.Ed. students (361) of the academic year 2008-2009 of the selected institutions. Established institutions in the field of teacher education were contacted for data collection. The list of institutions which were contacted for the data collection has been given in appendix 1. The table given below provides the details of the institutions which have responded.

Table 1: *Region-wise Name of the Sample Teacher Education Institutions along with the Sample Students*

Region	Sr. No.	Name of the Institute	Number of Students responded
North	1.	Regional Institute of Education-Ajmer Capt. D.P. Choudhary Marg Ajmer – 305 004	15
	2.	Department of Education Kurukshetra University Kurukshetra – 136 119	10
	3.	Dev Samaj College of Education, Chandigarh, Punjab	18
	4.	Faculty of Education Benaras Hindu University Varanasi	20
	5.	Department of Education University of Jammu JAMMU	11

	6.	Department of Education R.B.S. College, Agra	14
	7.	Lokmanya Tilak Teacher's Training College, Dabok, Udaipur	6
South	8.	Department of Education Kakatiya University Warangal	14
	9.	Regional Institute of Education, Manasa Gangotri, Mysore	30
	10.	Department of Education, Mysore University, Mysore	54
	11.	Department of Educational Technology Bhratidasan University Khajamalai Complex TRICHY – 120 023 Tamilnadu	34
East	12.	DPIASE AT Kanishi PO – Berhampur Dist. GANJAM, ORISSA	13
	13.	Department of Education Regional Institute of Education Bhubaneshwar – ORISSA	33
West	14.	Devi Ahilya University, Agra-Bombay Road, INDORE – 452 001	15
	15.	Department of Education Veer Narmad South Gujarat University Surat	7
	16.	Department of Education, Regional Institute of Education, Bhopal	13
	17.	Department of Education University of Mumbai Vidyanagari Mumbai	11
	18.	Department of Education The M.S. University of Baroda Vadodara	28
	19.	Swayam Siddhi Mitra Sangh's College of Education Bhiwandi, SNDT, Mumbai	15
Total number of Students			361

135

The analysis presented in next chapter is based on the data collected from the above institutions.

3.3 Tools and Techniques Employed

Tests were constructed by the investigator on – Research Aptitude, Techno-Pedagogic Competencies, Educational Management Aptitude, Living Competencies, Adjustment Capacity and Teacher Education Disciplinary Profile.

3.3.1 Research Aptitude Test

Test on *Research Aptitude* was prepared considering due representation of the following Components -

- Interest in doing research
- Comprehension about research process
- Ability to sense the problem in context
- Capacity to identify the problem correctly
- Keenness in following the steps of research process one by one
- Observing ethical practices related to research
- Clear expression of ideas
- Logical, rational thinking
- Analytical reasoning for defense
- Intellectual ability to predict future prospects for present research
- Presenting ideas/findings with a rational judgment
- Command over language
- Accepting faults/omissions with humility
- Interlinking and interdisciplinary approach for proceeding with present research

The final test comprised of 34 items based on the above mentioned components.

3.3.2 Educational Management Aptitude Test

Test on *Educational Management Aptitude* was prepared considering due representation of the following components -

- Concepts
- Staffing

- Controlling
- Planning
- Organizing
- Leadership
- Motivation
- Marketing
- Management Functions
- Personnel Management
- Self Management
- Personality and Emotions
- Perception and Decision Making
- Conflict and Negotiations
- Organizational Structure
- Organization Culture
- Organizational Change
- Stress Management

The final test comprised of 24 items based on the above mentioned components.

3.3.3 Techno-Pedagogic Competencies Test

Test on *Techno-Pedagogic Competencies* was prepared considering due representation of the following components —

1. Awareness about Principles of Technology

    1. Medium is message
    2. Every medium has its own language
    3. Information explosion – media implosion
    4. Contiguity of message forms – message reach
    5. Technology literacy demands experiential learning
    6. Research base of a medium – fidelity of message
    7. Technology demands systemic environment
    8. Media culture – media crowd
    9. Need for multi-forms and multi-levels of technology
    10. Immediacy, omnipresence and networking are evident features of technology
    11. Technology transcending time and space by constructing virtual world
    12. Reducing gap between subject and object

13. Reducing gap between real and virtual

14. Deals with science and art in systemic ways

15. Level of technology and controls needed

2. Principles of Pedagogy

    1. Following maxims of teaching

- Simple to complex
- Easy to difficult
- Whole to parts
- Concrete to abstract
- Induction to deduction

    2. Correspondence between teaching and

- Learner needs
- Learner interests
- Learner culture
- Learner style
- Learner conditions
- Learner profile

    3. Importance of group dynamics

- Selecting compatible methods, media, modes and models

    4. Suitable strategies of educational instruction

    5. Suitable models of communication

    6. Importance to learner centered approaches

    7. Employing different approaches

- Paradigms of learning
- Theories of learning
- Kaleidoscopic – wholistic – ecological
- Interdisciplinary – multidisciplinary and meta disciplinary

    8. Employing info-savvy skills

- Asking
- Accessing
- Applying
- Analyzing
- Assessing

3. Techno-Pedagogy concept and application

1. Heterogeneity of Learners
   - Mental Levels
   - Cultures
   - Languages
   - Categories
   - Learning Styles
   - Sizes

2. Teacher Education
   - Use in teaching
   - Use in research
   - Evolving suitable technology integration practices

3. Pre-requisites for applying techno pedagogy skills
   - Content mastery in theory
   - Knowledge of pedagogy
   - Knowledge of technology available
   - Competence in developing techno pedagogic systems

4. Research Base
   - Technological attitude
   - Technological aptitude
   - Techno-savvy experience
   - Technological culture
   - Technological threats

5. Levels
   - Self instruction
   - Small group instruction
   - Class instruction
   - Country wide class room
   - Global instruction

6. Various forms
   - CAI, Educational Radio, ETV, DVD
   - Teleconferencing, Video-conferencing

- Educational Out sourcing
- Instant Messaging / Education chatting
- Web based instruction Web based publishing
- Mobile labs

4. Present Status - Issues and Problems

The final test comprised of 34 items based on the above mentioned components.

3.3.4 Living Competencies Test

Test on *Living Competencies* was prepared considering due representation of the following components –

1. **Life Skills**

   a. **Communication and Interpersonal Skills**
   - Verbal/Nonverbal communication
   - Negotiation and conflict management
   - Assertiveness skills
   - Refusal skills
   - Ability to listen and understand another's needs and circumstances and express that understanding
   - Expressing respect for others' contributions and different styles
   - Assessing one's own abilities and contributing to the group
   - Influencing skills & persuasion
   - Networking and motivation skills

   b. **Decision-Making and Critical Thinking Skills**
   - Information gathering skills
   - Evaluating future consequences of present actions for self and others
   - Determining alternative solutions to problems
   - Analysis skills regarding the influence of values and attitudes of self and others on motivation
   - Analyzing peer and media influences
   - Analyzing attitudes, values, social norms and beliefs and factors affecting these
   - Identifying relevant information and information sources

c. Coping and Self-Management Skills

- Self esteem/confidence building skills
- Self awareness skills including awareness of rights, influences, values, attitudes, rights, strengths and weaknesses
- Goal setting skills
- Self evaluation / Self assessment / Self-monitoring skills
- Anger management
- Dealing with grief and anxiety
- Coping skills for dealing with loss, abuse, trauma
- Time management
- Positive thinking
- Relaxation techniques

2. Professional Values

1. Effectiveness in promoting learning in the classroom
2. Critical self-evaluation and development
3. Collaboration and influence
4. Educational and social values

3. Professional Ethics

Principle 1: Educators nurture the intellectual, physical, emotional, social, and civic potential of each student.

Principle 2: Educators create, support, and maintain challenging learning environments for all.

Principle 3: Educators commit to their own learning in order to develop their practice.

Principle 4: Educators collaborate with colleagues and other professionals in the interest of student learning.

Principle 5: Educators collaborate with parents and community, building trust and respecting confidentiality.

Principle 6: Educators advance the intellectual and ethical foundation of the learning community.

4. Professional Rights

- Freedom from Discrimination
- Academic Freedom

- Freedom of Expression
- Freedom of Association
- Freedom of Religion
- Privacy Rights

The final test comprised of 39 items based on the above mentioned components.

3.3.5 Adjustment Capacity Test

Test on *Adjustment Capacity* was prepared considering due representation of the following components –

1. Awareness about Adjustment concept
2. Adjustment with Self
   - Maintaining self esteem
   - Self awareness
   - Emotional regulation
3. Adjustment with Organization
   - Culture and tradition of organization
   - Behaviour system set for organization
   - Following rules and regulations of organization
4. Adjustment with Others
   - Beliefs and aspirations of other people
   - Group dynamics of working with others
   - Respecting others' culture and tradition

The final test comprised of 29 items based on the above mentioned components.

3.3.6 Teacher Education Disciplinary Profile Test

Test on *Teacher Education Disciplinary Profile* was prepared considering due representation of content areas of

- Philosophical Foundations of Education,
- Sociological Foundations of Education,
- Psychological Foundations of Education,
- Historical Foundations of Education and
- Teaching-Learning Practices Employed

142

The final test comprised of 159 items based on the above mentioned components. The tools were analyzed for content validity with experts and final form of test for each selected variable was decided.

3.4 Data Collection

All the above mentioned tests were administered on the sample students during the academic year 2008-2009. Data were collected both personally and through post. The achievement scores of the sample students were gathered from the respective institutions after declaration of the results.

3.5 Data Analysis

A stepwise multiple regression equation was worked out by the investigator among the independent variables – Research Aptitude, Educational Management Aptitude, Techno-Pedagogic Competencies, Living Competencies, Adjustment Capacity And Teacher Education Disciplinary Profile and the dependent variable, namely, Teacher Education Proficiency and the results were presented in the next chapter. SPSS package was used for data analysis.