

CHAPTER-3

RESEARCH METHODOLOGY

3.1 Introduction:

The aim of this chapter is to explain the research methods used in this study. The term “research methodology” refers to a systematic plan for conducting research (Creswell and Creswell, 2017). This chapter provides an in-depth account of the research design, sampling techniques, data collection methods, data analysis procedures, and ethical considerations utilized to achieve the research objectives. Choosing the right research methodology is crucial in any research study as it ensures the credibility and validity of the results (Golafshani, 2003). This study employed a mixed-method approach, combining quantitative and qualitative methods to fully comprehend the research problem (Creswell, 2012).

Research is an organized investigation or inquiry aimed at discovering, analyzing, and expanding knowledge on a specific topic or discipline. It involves the systematic collection, analysis, and interpretation of data to answer specific questions or solve problems. Research methods include experiments, observational studies, qualitative inquiries, and theoretical investigations. The ultimate goal is to contribute to the existing body of knowledge and enhance understanding in a particular field. This chapter outlines the study's methodology, population, sample and sampling techniques, research tools, data collection methods, and statistical techniques for data analysis. It describes the precise steps undertaken in the study and provides an adequate foundation for the study's overall framework.

3.2 Research Methodology:

The present study aims to determine whether Emotional Intelligence (EI) and Spiritual Intelligence (SI) impact the performance of educational leaders, specifically college principals, in the context of Educational Management (EM). To achieve this, the necessary data has been collected from educational leaders, i.e., principals of colleges, in both quantitative and qualitative forms. Therefore, the study adopted a mixed-method approach to conduct the research.

A mixed-methods research design is a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative methods in a single study or a series of studies to better understand a research problem (Creswell, J. W., 2019, cited as Creswell & Plano Clark, 2011, p. 535). The research objectives and questions of the study are suitable for applying a ***mixed-methods design***. The design includes a quantitative phase followed by a qualitative one.

The quantitative phase aims to study, measure, and establish the relationship between the variables of the study, namely Emotional Intelligence (EI), Spiritual Intelligence (SI), and Educational Managerial Skills of the educational leaders of higher educational institutions (Karthik, 2021).

In alignment with the nature of the study, the ***Descriptive Survey Method*** was employed to collect information. The present study is descriptive because it aims to describe the nature and current status of the phenomenon, focusing on the conditions or relationships.

In the present study, data were collected in terms of quantitative scores using standardized Emotional Intelligence (EI) Scale, Spiritual Intelligence (SI) Scale, and Educational Managerial Skill Scale, which required a quantitative approach. On the other hand, understanding the viewpoints of Educational Leaders (i.e., College Principals) on Emotional Intelligence (EI) and Spiritual Intelligence (SI) in the context of Educational Management (EM) of Higher Education Institutions required in-depth interviews with the Educational Leaders (i.e., College Principals), which led to a qualitative approach. As the study required both quantitative and qualitative approaches, it adopted a mixed-method approach. After reviewing the types of mixed method designs, ***the researcher found the explanatory sequential mixed method to be the appropriate method for the present study.***

The explanatory sequential design:

An explanatory sequential mixed methods design (also called a two-phase model; Creswell, 2019, cited as Creswell & Plano Clark, 2011) involves first collecting quantitative data, followed by collecting qualitative data to help explain or elaborate on the quantitative results. The rationale for this approach is that the quantitative data and results provide a general overview of the research problem. More in-depth analysis,

specifically through qualitative data collection, is required to refine, extend, or explain the findings to achieve a holistic understanding of the research study (Creswell, 2019, p. 535–541).

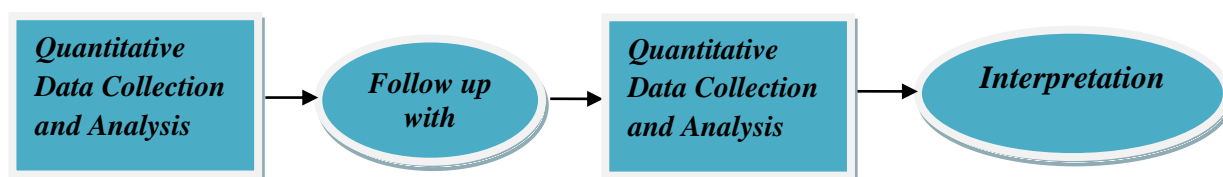
The explanatory sequential design consists of two distinct stages: a quantitative phase and a qualitative phase. The process begins with collecting and analyzing quantitative data, which is followed by collecting and analyzing qualitative data. In the first step, the researcher conducts the quantitative phase by gathering and analyzing numerical data. In the second step, the researcher integrates the quantitative and qualitative components by identifying specific quantitative results that require further explanation and designing the qualitative phase around these results. At this stage, the researcher refines or develops research questions, identifies targeted sampling methods, and determines appropriate data collection methods.

In the third step, the researcher collects and analyzes qualitative data as part of the qualitative phase. Finally, the researcher interprets the combined results, exploring how the qualitative findings illuminate and explain the quantitative outcomes. The overall findings are then synthesized and shared.

Description of the Explanatory Sequential design for the present study:

In the present mixed-methods study, the first phase is a quantitative descriptive survey aimed at garnering a general understanding of the Emotional Intelligence (EI), Spiritual Intelligence (SI), and Educational Managerial Skills of the educational leaders of higher educational institutions. *The second phase, a qualitative phenomenological approach, involves interviews with 20 selected participants.* During this phase, the viewpoints of educational leaders on Emotional Intelligence (EI) and Spiritual Intelligence (SI) in the management of higher education institutions are studied.

According to the need of the study the explanatory sequential design method can be used as follows

Figure 3.1: Visual Representation of Explanatory Sequential Design

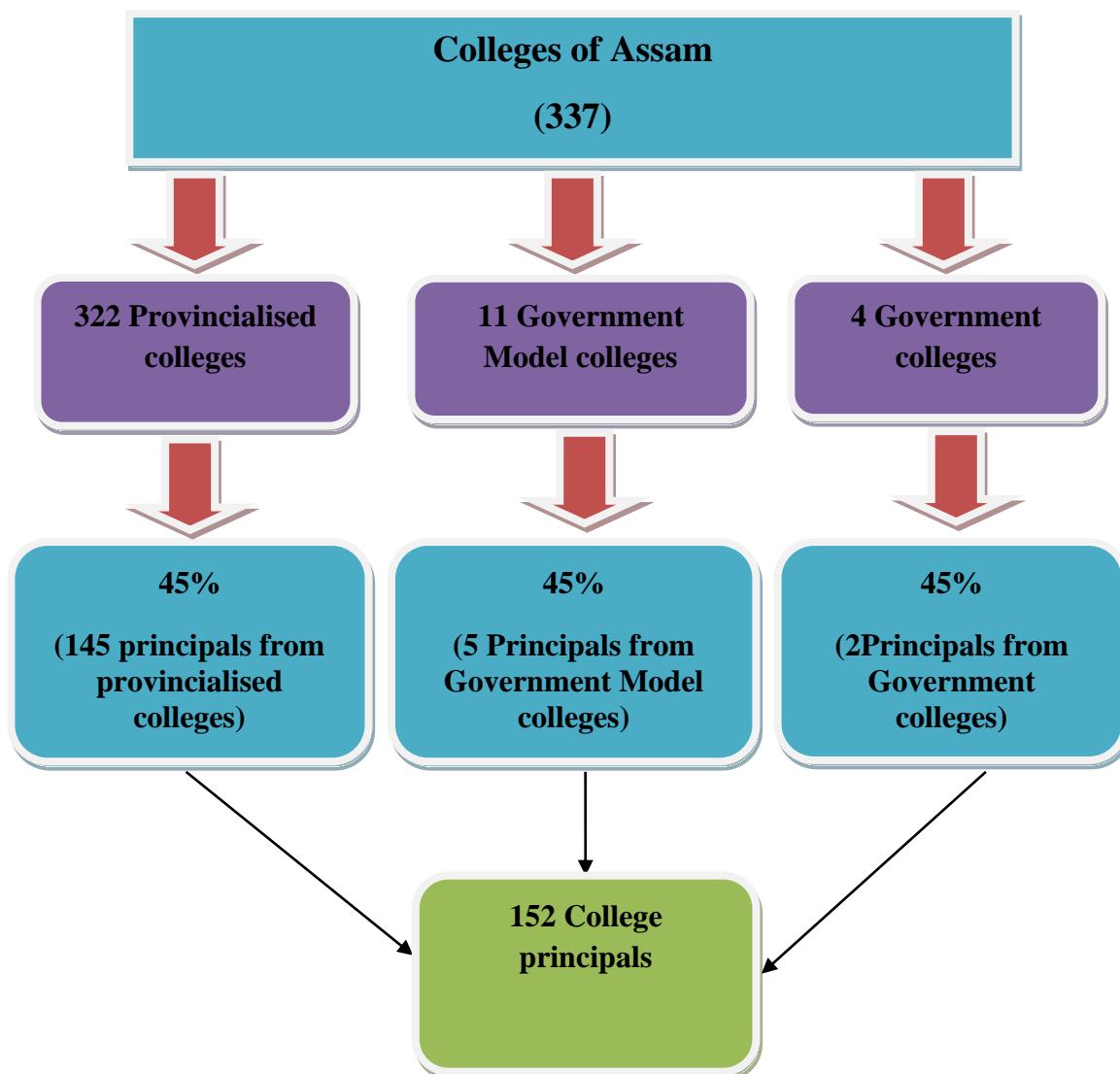
3.3 Population:

Population refers to the large group to which a researcher, generalize the sample results. It includes all Educational Leaders, i.e., the Principals of Provincialised Government and Government Model Colleges (337) in Assam.

3.4 Sample and sampling technique:

A sample is a subset of elements chosen from a larger population based on specific criteria. According to the Director of Higher Education data, there are a total of 337 colleges under the Directorate of Higher Education, Assam. The researcher then identified and classified these colleges into three categories: 322 provincialised colleges, 4 government colleges and 11 government model colleges. The researcher selected 45% from each category for the sample of the study for final data collection. Hence, the researcher used a proportional stratified random sampling technique to classify the colleges into government colleges, government model colleges, and provincialised colleges. The total sample consists of 152 college principals (educational leaders of the higher educational institutions).

The present study aims to examine the impact of Emotional Intelligence (EI) and Spiritual Intelligence (SI). To achieve the purpose of the study, qualitative data were collected from educational leaders (principals of colleges). ***For this objective, the researcher interviewed 20 educational leaders (principals) from colleges across Assam, using the purposive sampling method and a semi-structured interview schedule.***

Figure 3.2: Sample Design**3.5 Tools used for the study:**

The following tools have been used for the collection of data in the present study:

3.5.1 Emotional Intelligence Scale (EIS-HPD) by Anukool Hyde, Sanjyot Pethe, and Upinder Dhar

3.5.2 Spiritual Intelligence Scale (SIS-DD) by Santosh Dhar and Upinder Dhar

3.5.3 Educational Managerial Skill Scale (EMSS)

3.5.4 Interview Schedule on the Viewpoints of Educational Leaders on Emotional Intelligence (EI) and Spiritual Intelligence (SI) in the Context of Educational Management in Higher Education Institutions.

3.5.1 Emotional Intelligence Scale (EIS-HPD) by Anukool Hyde, Sanjyot Pethe, and Upinder Dhar

In the present investigation, Emotional Intelligence is taken as the total score obtained by the Educational Leaders (the principals of the colleges) of Assam through this tool, which comprises the following ten factors of the Emotional Intelligence Scale. The ten factors are:

- a) **Self-awareness**
- b) **Empathy**
- c) **Self-motivation**
- d) **Emotional stability**
- e) **Managing relations**
- f) **Integrity**
- g) **Self-development**
- h) **Value orientation**
- i) **Commitment**
- j) **Altruistic behaviour**

In the present study, the researcher, along with his supervisor, has selected the Emotional Intelligence Scale constructed and standardized by Anukool Hyde, Sanjyot Pethe, and Upinder Dhar. The reason for the selection of this scale is that it has been found suitable in Indian conditions and has been used by several researchers. It can be easily applied to the selected sample.

Emotional Intelligence Scale was constructed and standardized by Mr. Anukool Hyde, Sanjyot Pethe, and Upinder Dhar.

Table 3.1: Emotional Intelligence (EI) scale - No. of statements under different Factors

S. No	Factors	Statement Numbers	Total no. of Statements
1.	<i>Self-awareness</i>	6, 12, 18, 29	4
2.	<i>Empathy</i>	9, 10, 15, 20, 25	5
3.	<i>Self-motivation</i>	2, 4, 7, 8, 31, 34	6
4.	<i>Emotional stability</i>	14, 19, 26, 28	4
5.	<i>Managing relations</i>	1, 5, 11, 17	4
6.	<i>Integrity</i>	16, 27, 32	3
7.	<i>Self-development</i>	30, 33	2

S. No	Factors	Statement Numbers	Total no. of Statements
8.	<i>Value orientation</i>	21, 22	2
9.	<i>Commitment</i>	23, 24	2
10.	<i>Altruistic behaviour</i>	3, 13	2

A. Development of the Scale:

Based on a review of relevant literature, 106 items were created and written on separate cards. A group of 50 judges, all holding postgraduate degrees and having over 10 years of experience in their respective fields, was formed. A card containing the definition of Emotional Intelligence and instructions for selecting the items was also prepared. Each judge was individually given the cards and asked to categorize them. The frequency of their selections was recorded, and items that were chosen at least 75% of the time were kept. A total of 34 such items were selected and tested on 200 executives. The collected data was organized, and item-total correlations were calculated. Items with correlations below .25 ($p < .01$) were removed, based on Fisher and Yates' (1992) table of correlation values and significance levels. The final scale consisted of 34 items, and inter-item correlations for these were also analyzed.

B. Scoring Procedure:

This test includes 34 items, and all of them are written in a positively worded. Each item is given a score based on the response: ***strongly agree (5 points), agree (4 points), undecided (3 points), disagree (2 points), and strongly disagree (1 point)***. The total score is calculated by adding these values, which represents the Emotional Intelligence score for the individual. The score ranges from ***34 to 170***, where ***34 means the lowest Emotional Intelligence and 170 means the highest***.

C. Reliability:

The reliability of the tool/scale was checked by measuring the reliability coefficient using data from sample of 200 subjects. The split-half reliability coefficient was calculated as 0.88.

D. Validity:

The scale not only has face validity but also strong content validity because all its items are directly linked to the variable being studied. Experts have reviewed and confirmed

that the items accurately represent the concept of Emotional Intelligence. To check validity through reliability (Garrett, 1981), a reliability index was calculated. The result was 0.93, showing high validity (Rao, 2008, p.170-176).

E. Norms of the Scale:

As per the test manual, each statement is scored as follows: **5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree**. The scale is designed based on a sample of 200 subjects, and these scores help in understanding Emotional Intelligence levels. The average score is **68**, with a standard deviation of **16**. A score of **85 or higher** indicates a **high** level of Emotional Intelligence. Scores between **52 and 84** fall within the **normal** range, while scores **below 51** suggest a **low** level of Emotional Intelligence.

Table 3.2: Norms (EI) for Dimensions-wise interpretation of Raw Score (N=200)

<i>Factors</i>	<i>Factors 1</i>	<i>Factors 2</i>	<i>Factors 3</i>	<i>Factors 4</i>	<i>Factors 5</i>	<i>Factors 6</i>	<i>Factors 7</i>	<i>Factors 8</i>	<i>Factors 9</i>	<i>Factors 10</i>
	<i>Self-Awareness</i>	<i>Empathy</i>	<i>Self-motivation</i>	<i>Emotional Stability</i>	<i>Managing Relations</i>	<i>Integrity</i>	<i>Self-Development</i>	<i>Value orientation</i>	<i>Commitment</i>	<i>Atruistic Behaviour</i>
Means (M)	7.10	10.5	12.87	7.85	8.39	5.37	3.78	3.74	3.79	3.87
S.D.	2.85	3.43	3.94	2.66	2.83	1.83	1.46	1.77	1.31	1.51
High	11 and above	15 and above	18 and above	11 and above	12 and above	8 and above	6 and above	6 and above	6 and above	6 and above
Normal	4-10	7-14	9-17	4-10	5-11	4-7	2-5	2-5	2-5	2-5
Low	3 and below	6 and below	8 and below	3 and below	4 and below	3 and below	1 and below	1 and below	1 and below	1 and below

Table 3.3: Overall Norms (EI) for interpretation of Raw Score

N	200
Mean (M)	68
Standard Deviation	16
High	85- Above
Normal	52-84
Low	51 and below

3.5.2 Spiritual Intelligence Scale (SIS-DD) by Santosh Dhar and Upinder Dhar

In the present investigation the Spiritual Intelligence has taken as the total score obtained by Educational leaders of Assam through this tool which comprises the following six dimensions of the Spiritual Intelligence.

The Spiritual Intelligence Scale was constructed and standardized by Dr. Santosh Dhar and Dr. Upinder Dhar, and it was published by the National Psychological Corporation in Agra in English. The test evaluates Spiritual Intelligence across six areas. These six areas are:

The six dimensions are:-

1. **Benevolence**
2. **Modesty**
3. **Conviction**
4. **Compassion**
5. **Magnanimity**
6. **Optimism**

In this study, the researcher, with guidance from his supervisor, chose the Spiritual Intelligence Scale created and standardized by Santosh Dhar and Upinder Dhar. This scale was selected because it is well-suited for Indian settings, has been used by many researchers, and is easy to apply to the chosen group.

Table 3.4: Spiritual Intelligence Scale - No. of statements under different Dimensions

S. No	Dimensions	Statement Numbers	Total no. of Statements
1.	<i>Benevolence</i>	5, 8, 9, 10, 14, 17, 18, 19, 20 25, 28, 29, 30, 36, 44, 48, 49	17
2.	<i>Modesty</i>	1, 2, 3, 4, 22, 33, 35, 38, 39, 45, 50, 51, 52, 53	14
3.	<i>Conviction</i>	15, 16, 21, 23, 24, 26, 32, 47	8
4.	<i>Compassion</i>	6, 7, 11, 12, 27, 37, 42, 43, 46	9
5.	<i>Magnanimity</i>	13, 40, 41	3
6.	<i>Optimism</i>	31, 34	2

The Spiritual Intelligence Scale was developed and standardized by Dr. Santosh Dhar and Dr. Upinder Dhar, and published in English by the National Psychological Corporation in Agra. This test evaluates Spiritual Intelligence across six dimensions: A. Benevolence, B. Modesty, C. Conviction, D. Compassion, E. Magnanimity, and F. Optimism.

A. Development of the Scale:

After studying the available research on Spiritual Intelligence and consulting to experts in the field, 53 statements were selected and presented using a 5-point Likert scale. These statements were given to 323 executives from various organizations. The data collected was organized, and the item-total correlations were calculated to find out which statements were most important for measuring Spiritual Intelligence. All the statements showed significant correlation at 0.05, so they were kept.

B. Scoring Procedure:

This test has 53 items, and all of them are written in a positive worded. The items are scored as follows: 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree. To find the Spiritual Intelligence score, you add up the points from all the answers. The total score is calculated by adding these values, which represents the Emotional Intelligence score for the individual. The score ranges from **53 to 265**, where **53 means the lowest Emotional Intelligence and 265 means the highest**.

C. Reliability:

The reliability of the scale was tested using the Split-half method, and the result was adjusted for the full length using the Spearman-Brown prophecy formula. This was done on data collected from 323 subjects. The reliability coefficient found was 0.98.

D. Validity:

Apart from face validity, since all the items in the scale are connected to Spiritual Intelligence, the scale also has strong content validity. To check its validity, the reliability coefficient (Garrett, 1981) was calculated. The reliability coefficient shows how consistent the test scores are by comparing them to their true values. It shows the highest

possible correlation the test can achieve in its current form. This is accurate because the highest correlation is measured between the test scores and their true values. The reliability index shows high validity, with a value of 0.99.

E. Norms of the Scale:

The test manual gives instructions for rating each statement: 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree. The scale norms are based on a sample of 323 people and can be used to interpret the Spiritual Intelligence scores. The mean score is 212.72, with a standard deviation of 17.19. A score of 231 or more means a high level of Spiritual Intelligence. A score between 195 and 230 is considered normal, while a score below 194 suggests a low level of Spiritual Intelligence.

Table: 3.5: Dimensions-wise Norms for (Spiritual Intelligence Scale) Interpretation of Raw Scores

Dimensions	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5	Dimension 6	Total
	<i>Benevolence</i>	<i>Modesty</i>	<i>Conviction</i>	<i>Compassion</i>	<i>Magnanimity</i>	<i>Optimism</i>	
Means (M)	67.58	56.66	32.50	35.81	11.93	8.22	212.72
S.D.	6.16	4.99	3.53	3.75	1.39	0.94	17.19
High	75 and above	63 and above	37 and above	41 and above	14 and above	10 and above	231 and above
Normal	61-74	52-62	32-40	32-40	10-13	7-9	195-230
Low	60 and below	51 and below	31 and below	31 and below	9 and below	6 and below	194 and below

3.5.3 Educational Managerial Skill Scale (EMSS):

A. Development and validation of Educational Managerial Skill scale (EMSS):

Management generally refers to the process of organizing and coordinating activities to achieve a desired goal for an organization. It includes various functions that are applied in different settings, such as businesses and educational institutions. Educational

management, specifically, focuses on planning, organizing, directing, and controlling resources (like human, financial, physical, and informational) to achieve educational objectives effectively and efficiently. It involves various administrative and leadership roles within educational institutions, such as schools, colleges, universities, and educational agencies. The goal of educational management is to ensure the smooth operation of these institutions, create a positive learning environment, and improve student outcomes (Deshmukh, & Naik, 2015).

B. Explanation of the Tool:

Identification of the dimensions:

To create the scale items, the investigator reviewed several conceptual and related literatures on Educational Management, managerial skills, and its key aspects. After reviewing the literature, the investigator identified seven dimensions for the scale, which included:

- 1. *Planning***
- 2. *Organizing***
- 3. *Staffing***
- 4. *Directing***
- 5. *Coordinating***
- 6. *Budgeting***
- 7. *Evaluation***

Preparation of the items:

The first draft of the scale included 80 items across seven dimensions. A detailed review was conducted with the supervisor to ensure that there was no overlap or ambiguity in the items.

Expert review:

The first draft of the tool, which included 80 items, was sent to 35 experts in the field of education for their valuable suggestions. Based on the experts' feedback, the scale was

revised, and 56 items were considered relevant. The modified draft was then approved by the departmental Research Committee for the pilot study.

Item Analysis:

To assess homogeneity, applicability, and item analysis, the second draft was given to a sample of 25 educational leaders (Principals) randomly selected from various colleges across different districts in Assam. A five-point scale was used to measure responses: for positive items, the points ranged from “strongly agree” (5), “agree” (4), “neutral” (3), “disagree” (2), to “strongly disagree” (1). For negative items, the scale was reversed: “strongly agree” (1), “agree” (2), “neutral” (3), “disagree” (4), and “strongly disagree” (5). A five-point Likert scale was preferred over a seven-point scale to minimize confusion and improve response rates. From the total sample, 27% of respondents with the lowest total scores and 27% with the highest total scores were grouped into two categories: high achievers and low achievers. t-values and significance scores were calculated to compare the responses of these two groups on each item. The t-values and significance for the 56 items are as follows:

Table 3.6: Item-wise t-values and p-values (EMSS)

<i>Item No.</i>	<i>t-value</i>	<i>p-value</i>	<i>Remark</i>
1.	7.09	0.02	Selected
2.	3.47	0.01	Selected
3.	0.00	0.23	rejected
4.	10.67	0.02	Selected
5.	-0.84	0.18	rejected
6.	8.84	0.02	Selected
7.	6.76	0.03	Selected
8.	-0.77	0.33	rejected
9.	11.70	0.01	Selected
10.	-1.56	0.43	rejected
11.	9.49	0.03	Selected
12.	7.62	0.03	Selected
13.	0.49	0.33	rejected
14.	10.94	0.03	Selected
15.	-1.50	0.29	rejected
16.	1.86	0.37	rejected
17.	10.34	0.00	Selected
18.	8.49	0.03	Selected

<i>Item No.</i>	<i>t-value</i>	<i>p-value</i>	<i>Remark</i>
19.	11.71	0.00	Selected
20.	-1.23	0.07	rejected
21.	10.94	0.04	Selected
22.	-2.62	0.30	rejected
23.	11.09	0.02	Selected
24.	0.60	0.23	rejected
25.	0.49	0.27	rejected
26.	7.09	0.02	Selected
27.	9.56	0.00	Selected
28.	-1.18	0.28	rejected
29.	8.03	0.01	Selected
30.	6.40	0.03	Selected
31.	0.58	0.52	rejected
32.	5.49	0.02	Selected
33.	0.00	1.00	rejected
34.	8.73	0.02	Selected
35.	6.37	0.00	Selected
36.	9.60	0.02	Selected
37.	-3.04	0.36	rejected
38.	10.63	0.00	Selected
39.	-0.84	0.48	rejected
40.	8.94	0.02	Selected
41.	6.49	0.01	Selected
42.	-0.49	0.33	rejected
43.	7.42	0.02	Selected
44.	0.60	0.37	rejected
45.	5.09	0.02	Selected
46.	0.00	0.47	rejected
47.	4.49	0.03	Selected
48.	-0.60	0.42	rejected
49.	11.21	0.03	Selected
50.	6.40	0.04	Selected
51.	9.49	0.03	Selected
52.	0.25	0.54	rejected
53.	8.32	0.00	Selected
54.	6.23	0.01	Selected
55.	-0.97	1.00	rejected
56.	8.87	0.01	Selected

From the table it is very clear that sign (p) value for the item number 1,2,4,6,7,9,11,12,14,17,18,19,21,23,26,27,29,30,32,34,35,36,38,40,41,43,45,47,49

,50 ,51,53,54,56 are significant at the 0.05 level of significant. Thus total 34 items were kept for the final scale.

Final Draft of the Scale:

The final Educational Managerial Skill scale consisted with 34 items (27 positively worded and 07 negatively worded). The dimension-wise distribution of serial number wise items has been depicted in

Table 3.7: Serial Number-wise distribution of items in each dimension and types of items (EMSS)

SI No.	Dimensions	Nature of Items	No. of Items	Total No.of Items	Total
	<i>Planning</i>	Positive	1,2,6,7	4	5
		Negative	4	1	
	<i>Organizing</i>	Positive	9,11,14	3	4
		Negative	12	1	
	<i>Staffing</i>	Positive	17,18,19,21,23	5	5
		Negative	0	0	
	<i>Directing</i>	Positive	26,27,29,30,32	5	5
		Negative	0	0	
	<i>Coordinating</i>	Positive	35, 36,38,40	4	6
		Negative	34,41	2	
	<i>Budgeting</i>	Positive	43, 45, 47	3	4
		Negative	49	1	
	<i>Evaluation</i>	Positive	50,53,56	3	5
		Negative	51,54	2	
Positive Items=27 + Negative Items=7				Total	34

C. Scoring of the scale:

The Educational Managerial Skill Scale comprises 34 items with 27 positive items and 7 negative items. Responses to the inquiries can be made by selecting from the following options: “***strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1) for positive items responses and for the negative items responses reverse “strongly agree (1), agree (2), neutral (3), disagree (4), and strongly disagree (5)***”

Table 3.8: Scoring of the scale (EMSS):

Type of Statements	strongly agree	agree	neutral	disagree	strongly disagree
Positive Statements	5	4	3	2	1
Negative Statements	1	2	3	4	5

D. Reliability:

In the final stage, the researcher administered the tool to a group of 50 college principals from different districts of Assam to test the reliability of the scale. None of these participants were included in the final data collection. The researcher gathered data from all the selected colleges and analyzed it scientifically to obtain the required information for the study. The principals were informed that their responses would remain confidential and be used only for research purposes.

Reliability refers to the consistency of scores, which helps ensure that the tool is standardized. To establish reliability, the researcher used the Cronbach's Alpha method. The correlation coefficient, calculated using the Pearson formula in the Statistical Package for Social Sciences (IBM SPSS Statistics 22), was found to be 0.86, which is significant at the 0.01 level. Additionally, the Split-Half Reliability Coefficient was determined by applying the odd-even method to the scores of 25 college principals. The scores from the odd-numbered and even-numbered items were used to calculate the Split-Half Reliability Coefficient of 0.89 for the Educational Managerial Skill Scale, which is also significant at the 0.01 level.

Table 3.9: Reliability of scale (EMSS)

<i>Reliability of the Educational Managerial Skill Scale</i>		
<i>Split-Half Reliability Coefficient</i>		<i>0.89</i>
<i>Cronbach's Alpha</i>		<i>0.86</i>
	<i>Planning</i>	<i>0.84</i>
	<i>Organizing</i>	<i>0.88</i>
	<i>Staffing</i>	<i>0.90</i>
	<i>Directing</i>	<i>0.85</i>

<i>Dimensions</i>	<i>Coordinating</i>	<i>0.83</i>
	<i>Budgeting</i>	<i>0.87</i>
	<i>Evaluation</i>	<i>0.89</i>

E. Validity:

For this research, the researcher ensured the content validity of the tool. Content validity means that all the items in the tool represent the complete area the test aims to measure. To establish content validity, the researcher sent the tool to various experts from respected institutions in India and abroad. The experts recommended using the tool for this study because the items adequately represented the study's objectives. Based on their suggestions, the researcher made changes to the tool and used it for the final data collection.

F. Norms:

To set the norms, the researcher distributed the tool to a group of 50 college principals from various districts of Assam. Statistical calculations were then performed on the raw scores obtained from this tool to determine the mean and standard deviation, which were used to establish the norms. The scale norms are based on a sample of 50 college principals from three districts of Assam, and can be used to interpret the ***Educational Managerial Skill*** scores. The mean score is 59.71, with a standard deviation of 20.94. A score of 81 or more means a high level of ***Educational Managerial Skill***. A score between 38 and 80 is considered normal, while a score below 37 suggests a low level of ***Educational Managerial Skill***.

Table 3.10: Norms for (Educational Managerial Skill Scale) Dimensions-wise interpretation of Raw Score (N=50)

Dimensions	Dimension 1	Dimension 2	Dimension 3	Dimension 4	Dimension 5	Dimension 6	Dimension 7	Total
	<i>Planning</i>	<i>Organizing</i>	<i>Staffing</i>	<i>Directing</i>	<i>Coordinating</i>	<i>Budgeting</i>	<i>Evaluation</i>	
Means (M)	8.82	7.76	8.80	8.88	8.96	7.56	8.93	59.71
S.D.	3.27	2.35	3.25	3.26	3.22	2.22	3.37	20.94
High	12 and above	10 and above	12 and above	12 and above	12 and above	10 and above	12 and above	81 and above
Normal	7-11	6-9	7-11	7-11	7-11	6-9	7-11	38-80
Low	6 and below	5 and below	6 and below	6 and below	6 and below	5 and below	6 and below	37 and below

3.6. Data collection procedure:

The researcher visited all the selected colleges for data collection from the college principals after obtaining the necessary permission. Three questionnaires were used to gather primary data: the Emotional Intelligence Scale (EIS-HPD) by Anukool Hyde, Sanjyot Pethe, and Upinder Dhar; the Spiritual Intelligence Scale (SIS-DD) by Santosh Dhar and Upinder Dhar; and the Educational Managerial Skill Scale (EMSS) developed by the researcher. Additionally, one semi-structured interview schedule was used. Before distributing the questionnaires, the researcher interacted with the principals to build rapport and create a comfortable environment.

The respondents were first briefed on the procedure and reassured that their responses would be confidential and used only for research purposes. Afterward, the three questionnaires were given to them, and they were encouraged to ask questions if they had any doubts before answering. The completed questionnaires were reviewed, and any that were not fully answered were discarded. The scoring was done by the researcher based on the scoring system of the tools. Finally, the scores were organized and tabulated for data

analysis. After completing the quantitative data collection and analysis, the researcher interviewed 20 college principals using purposive sampling techniques to gather qualitative data.

3.7 Statistical Methods Used:

A. Descriptive Statistics: This involves summarizing and explaining the key features of the collected data. Tools like percentages mean (average) and standard deviation (S.D.) are used. These methods help in understanding the basic characteristics of the data, such as central tendency (mean) and variability (standard deviation).

B. Inferential Statistics: These methods are used to make conclusions about a population based on a sample of data. The use of regression shows that the study compares averages to check if there are any significant differences between groups.

Correlation Statistics: This involves examining the connection between variables. Specifically, Pearson's Product-Moment Correlation is used, which measures how strong and in what direction two continuous variables are related.

Regression: Regression analysis is a statistical technique used to identify the relationship between a dependent variable (the response variable) and one or more independent variables (also called predictor or explanatory variables).

3.8. Data Analysis Process:

A. Post-Collection Analysis: After collecting the data, the next important step is to analyze and interpret it. This step is crucial for turning the raw data into valuable information that answers the research questions or hypotheses of the study.

B. Quantitative Analysis: The focus of this study is on using numerical data and statistical methods to analyze Educational Managerial Skills, Emotional Intelligence (EI), and Spiritual Intelligence (SI) data. This indicates that the aim of the study is to measure and quantify the relationships, behaviors and other aspects being studied.

C. Qualitative Analysis: The focus here is on analyzing non-numerical data to deeply understand the educational managerial skills of educational leaders (college principals)

and their relationship with Emotional Intelligence (EI) and Spiritual Intelligence (SI) through detailed and contextual data. For the present study the researcher has used thematic analysis

The qualitative data analysis involved coding the text from interview transcripts. These codes were taken from important statements made by the principals of the colleges from the selected sample. After that, the codes were examined to identify key themes and key themes to create a summary of the main ideas.

3.9 Use of SPSS Software:

A. Statistical Package for the Social Sciences (IBM SPSS Statistics 22): SPSS is commonly used software for statistical analysis in social sciences. It offers a wide range of tools and methods that make complex data analysis simpler. By mentioning SPSS, the study highlights its reliance on trusted and well-known software to ensure accurate and thorough data analysis.