CHAPTER - III

RESULTS, INTERPRETATION AND DISCUSSION

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CHAPTER - III

STATISTICAL ANALYSIS AND DISCUSSION

The statistical analysis of the data has been undertaken in different stages. Section I deals with descriptive statistics of the three independent variables, viz., (i) Characteristics of the resource system; (ii) Process of developing innovation; and (iii) The process of communicating innovation. Section - II is concerned with the relationship between the dependent variable (adoption process) and the three independent variables mentioned above.

SECTION - I

Descriptive Statistics of the Independent Variables:

There are three independent variables in the present study. These are as stated earlier, characteristics of the resource system, processes of developing and communicating innovation. The three questionnaires constructed by the investigator provide a measure of these three independent variables.

Independent variables - Characteristics of the resource system, process of developing innovations and the process of communicating innovations.

Table 3.0.0.0 : Showing mean score of the CERS, PDI and and PCI of the ERS

Sl. No.	E R S	C E R S	P D I	P C I
1.	Total ERS	168.83 (75.03)	188.18 (71.01)	97.04 (53.91)
2.	ERS of National level	188.10 (83.60)	197.60 (74.57)	122.90 (68.27)
3.	ERS of State level	173.00 (76.88)	202.58 (76.44)	107.66 (59.81)
4.	ERS of Regional level	201.33 (89.48)	212.33 (80.12)	114.00 (63.33)
5.	ERS of Local level	163.93 (72.85)	183.34 (69.18)	90.80 (50.44)

Where:

ERS = Educational resource system

CERS = Characteristics of educational resource system

PDI = Process of developing innovation

PCI = Process of communicating innovation.

(Figures in brackets indicate the percentage of the mean score).

Table 3.0.0.0. shows the mean and percentage score of the characteristics of educational resource system, process of developing and communicating innovation. The mean percentage score was maximum for the characteristics of the educational resource system, (CERS) while the mean percentage score of the

process of communicating innovation (PCI) was the minimum. The mean percentage score for the process of developing innovation (PDI) is slightly less than the mean percentage scores of CERS. It shows that the ERS of various levels have higher score on the characteristics and the process of developing innovations (PDI) but the process of communicating innovations (PCI) is quite low. Thus it can be concluded that though the educational resource system (ERS) have good characteristics and reasonable system of developing innovations, the channels of communicating innovations are poor.

The educational resource system (ERS) at National, state, regional and local levels have ahigh level of characteristics and the process of developing innovations (PDI) but the communication of innovations was poor. There has, however, been one exception, in that, the process of communication of innovation at national level has been comparatively much better (68.27%). This could probably be due to the availability of better channels of communication.

3.1.0.0 TO STUDY THE CHARACTERISTICS OF THE RESOURCE SYSTEM:

Table 3.1.0.0. : Showing the mean score of the characteristics of the educational resource system.

Sl. No.	E R S	Linkage	Structure	Openness	Capacity	Reward	Proximity	Synergy
1.	Toral ERS	22.54 (75.13)	24.06 (80.20)	28.89 (82.54)	18.93 (75.72)	17.75 (71.00)	29.40 (73.50)	27.20 (68.00)
2.	ERS of National level	25.90 (86.33)	26.40 (88.00)	31.00 (88.57)	22.20 (88.80)	19.70 (78.80)	31.40 (78.50)	31.50 (78.75)
3.	ERS of state level	23.41 (78.03)	25.25 (84.16)	30.41 (86.88)	18.66 (74.64)	17.41 (69.64)	29.50 (73.75)	28.33 (70.82)
4.	ERS of Regional level	27.33 (91.10)	27.00 (90.00)	31.66 (90.45)	24.00 (96.00)	21.00 (84.00)	36.00 (90.00)	34.33 (85.82)
5.	ERS of local level	21.74 (72.46)	23.22 (77.40)	28.21 (80.60)	18.30 (73.20)	17.40 (69.60)	28.81 (72.02)	26.22 (65.55)

Where:

ERS = Educational resource system.

(Figures in bracket indicate mean percentage scores).

Table 3.1.0.0. showing the mean and percentage score of the characteristics of the educational resource system. In India educational resource systems at various levels have the maximum mean percentage score as far as the openness factor is concerned. In fact, ERS are willing to listen to their clientele, and are willing to accept change.

The educational resource systems have a quite high score on the structure factor. It indicates that the ERS have a highly structured and coherent view of their client systems. The ERS in India are also able to plan innovation in a structured sequence. The educational resource systems collectively possess a high degree of intelligence, education, power and wealth, and hence are able to plan and structure their activities.

The linkage factor of the ERS has fairly a high score at all the levels, indicating a highly developed reciprocal and collaborative relationship with its clients. It further indicates that there exists a successful internal linkages within itself and among its members.

The educational resource systems in India possess high power, prestige and capital as revealed by high score on capacity (75.72%). Also the reward factor has fairly a high score at the national and regional levels.

The proximity factor of the ERS has a high score showing the easy access and linkage to other educational resource systems. The ERS in India have a high score on synergy factor except at the local level which has fairly good score. It can be concluded from this that ERS in India have a high degree of persistent leadership to a

considerable extent. They spread over a variety of messages in sequence and in repetition to its clients to a considerable extent.

From above, it can be concluded that the ERS in India have high scores on characteristics. The ERS not only survive in their environment, but continue to cope adequately over the long haul, and continuously develop and extend their surviving and coping abilities. The important seven characteristics of the educational resource system have been discussed as follows:

3.1.1.0. LINKAGE:

(1) ERS at National level

TABLE No.3.1.1.1 showing mean percentage of national level educational resource system on linkage factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
To what extent							
1. -	does your institution develop reciprocal relationship with its clients?	40.00	60.00	00.00	00.00	00.00	100.00
2. -	does your institution develop collaborative relationship with its clients?	30.00	50.00	20.00	00.00	00.00	100.00

3. - does your institution develop successful internal linkage within itself?	50.00	50.00	00.00	00.00	00.00	100.00
4. - does your institution cater to the needs of its clients?	90.00	10.00	00.00	00.00	00.00	100.00
5. - does your institution adapt appropriate media for appropriate innovation?	50.00	20.00	10.00	10.00	10.00	100.00
6. - has your institution primacy over its clients?	20.00	70.00	10.00	00.00	00.00	100.00

TABLE 3.1.1.1 showing the mean percentage of national level educational resource system on linkage factor. The linkage factor has a fairly high score on educational resource system at national level. Approximately around 80 percent of the national level resource systems revealed that they developed reciprocal and collaborative relationship to a great extent with their clients and among themselves. All the national level educational resource systems reported that they to a very great extent catered to the needs of their clients. Nearly 70 percent of the national level resource systems adapt to a great extent appropriate media for

appropriate innovations and 90 percent ERS at national level have to a considerable extent primacy over their clients.

(ii) ERS at State level:

TABLE No. 3.1.1.2 showing mean percentage of state level educational resource system on linkage factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent							
1.	- does your institution develop reciprocal relationship with its clients?	25.00	41.66	33.33	00.00	00.00	100.00
2.	- does your institution develop collaborative relationship with its clients?	00.00	75.00	16.66	8.33	00.00	100.00
3.	- does your institution develop successful internal linkage within itself?	58.33	33.33	8.33	00.00	00.00	100.00
4.	- does your institution cater to the needs of its clients?	41.66	41.66	8.33	8.33	00.00	100.00

5. - does your institution adapt appropriate media for appropriate innovations?	25.00	16.00	33.33	8.33	16.66	100.00
6. - has your institution primacy over its clients?	16.66	58.33	25.00	00.00	00.00	100.00

TABLE No.3.1.1.2 shows the mean percentage of the state level educational resource system on linkage factor. It can be concluded from the table that more than 65 per cent of state level ERS revealed that they had a high degree of reciprocal and collaborative relationship with their clients. More than 80 percent of state level ERS revealed that they had a high degree of internal linkage within the resource system and to a great extent catered to the needs of their clients. Approximately 16 percent of the state level ERS stated that they did not have proper media for appropriate innovation. Nearly 70 percent state level ERS revealed that they had a high degree of primacy over their clients.

(iii) ERS at Regional level

Table No. 3.1.1.3 showing mean percentage of the regional level educational resource system on linkage factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate Percentage
To what extent							
1.	-does your institution develop reciprocal relationship with its clients?	66.66	33.33	00.00	00.00	00.00	100.00
2.	-does your institution develop collaborative relationship with its clients?	66.66	33.33	00.00	00.00	00.00	100.00
3.	-does your institution develop successful internal linkage within itself?	33.33	66.66	00.00	00.00	00.00	100.00
4.	-does your institution cater to the needs of its clients?	66.66	33.33	00.00	00.00	00.00	100.00
5.	-does your institution adapt appropriate media for appropriate innovations?	66.66	33.33	00.00	00.00	00.00	100.00
6.	-has your institution primacy over its cliets?	33.33	66.66	00.00	00.00	00.00	100.00

TABLE No.3.1.1.3 showing the mean percentage of regional level educational resource system on linkage factor. Amost all the ERS at regional level reported that they developed to a great extent reciprocal and collaborative relationship with their clients. All the regional level ERS responded that they developed to a great extent successful internal linkages and adapted appropriate media for appropriate innovations. Regional level ERS showed that they had to a very great extent primacy over their clients and catered to the needs of their clients.

(iv) At local level ERS

Table No.3.1.1.4 showing mean percentage of local lvel educational resource system on linkage factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent							
1. -	does your institution develop reciprocal relationship with its clients?	18.57	47.14	25.71	7.14	1.42	100.00
2. -	does your institution develop collaborative relationship with its clients	12.85	25.71	38.57	18.57	4.28	100.00

3. - does your institution develop successful internal linkage within itself?	34.28	42.85	18.57	4.28	00.00	100.00
4. - does your institution cater to the needs of its clients?	24.28	41.42	30.00	2.85	1.42	100.00
5. - does your institution adapt appropriate media for appropriate innovations?	20.00	32.85	30.00	11.42	5.71	100.00
6. - has your institution primacy over its clients?	8.57	40.00	32.85	14.28	4.28	100.00

TABLE 3.1.1.4 shows the mean percentage of local level educational resource system on linkage factor. About 8 percent of local ERS responded that they rarely developed reciprocal relationship with their clients, while about 22 percent responded that they rarely developed collaborative relationship with their clients. But more than 65 percent ERS responded that they developed to a great extent reciprocal relationship while about 38 percent developed

to a great extent collaborative relationship with the clients. Majority of ERS revealed that they usually developed to a considerable extent successful internal linkage within themselves and usually catered to a considerable extent to the needs of the clients. Approximately 17 percent ERS responded that they rarely adapted appropriate media for appropriate innovations and they hardly had any primacy over the clients. But nearly 52 percent ERS indicated that they adapted to a great extent appropriate media for appropriate innovations and always had a high degree of primacy over the clients.

Havelock (1973) revealed that in order to be effective as disseminators and helpers in the innovative process, resource systems need to develop reciprocal and collaborative relationship not only with a variety of users but also with a large and diverse group of other resource systems. The resource system also needs to have successful internal linkage within itself and among its members. The more linkages there are and stronger these linkages are, the more effective will be day-to-day contact and exchange of information and hence the greater will be the mutual utilization of knowledge.

3.1.2.0. STRUCTURE:

(i) At national level ERS:

Table 3.1.2.1 showing mean percentage of national level educational resource system on structure

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
To what extent:							
1.	-has your institution a degree of structure in terms of meaningful division of labour	50.00	40.00	10.00	00.00	00.00	100.00
2.	-has your institution a degree of structure in terms of co-ordination of efforts?	60.00	40.00	00.00	00.00	00.00	100.00
3.	-does your institution function as a whole?	80.00	20.00	00.00	00.00	00.00	100.00
4.	-has your institution a coherent view of its clients?	40.00	50.00	10.00	00.00	00.00	100.00
5.	-has your institution an overall view of its clients?	60.00	40.00	00.00	00.00	00.00	100.00
6.	-is your institution able to understand interrelationship of the various subsystem of the client system?	20.00	70.00	10.00	00.00	00.00	100.00

Table No. 3.1.2.1 shows the mean percentage of national level educational resource system on structure factor. Nearly all the national level ERS showed that they had to a great extent a high degree of structure in terms of coordination of efforts and meaningful division of labour. Almost all the national level ERS reported that they used to function to a great extent as a whole and had to a great extent coherent and overall view of their clients.

(ii) <u>At State level ERS:</u>

Table No. 3.1.2.2. showing mean percentage of state level educational <u>resource system on structure factor</u>

S.No. Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent-						
1. -has your institution a degree of structure in terms of meaningful division of labour	50.00	50.00	00.00	00.00	00.00	100.00
2. -has your institution a degree of structure in terms of co-ordination of efforts?	25.00	75.00	00.00	00.00	00.00	100.00
3. -does your institution function as a whole?	50.00	50.00	00.00	00.00	00.00	100.00
4. -has your institution a coherent view of its clients?	16.66	66.66	16.66	00.00	00.00	100.00
5. -has your institution an overall view of its clients?	25.00	41.66	25.00	8.33	00.00	100.00
6. -is your institution able to understand inter-relationship of the various sub-system of the client system?	41.66	33.33	25.00	00.00	00.00	100.00

Table No. 3.1.2.2 shows the mean percentage score of state level educational resource systems on structure factor. Almost all the state level ERS showed that they were having a very high degree of structure in terms of meaningful division and coordination of efforts. Nearly all the state level ERS revealed that they functioned to a great extent as a whole. More than 66 percent of the state level ERS revealed that there existed a fairly good degree of coherent and overall view of their clients. A few state level ERS (8%) responded that they were having rarely a coherent view of the clients.

(iii) At Regional level ERS

Table No. 3.1.2.3. showing mean percentage of regional level educational resource systems on structure factor.

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approx. percentage
To what extent -							
1.	-has your institution a degree of structure in terms of meaningful division of labour	33.33	66.66	00.00	00.00	00.00	100.00
2.	-has your instiution a degree of structure in terms of co-ordination of efforts?	66.66	33.33	00.00	00.00	00.00	100.00
3.	-does your institution function as a whole?	66.66	33.33	00.00	00.00	00.00	100.00
4.	-has your institution a coherent view of its clients?	66.66	33.33	00.00	00.00	00.00	100.00
5.	-has your institution an overall view of its clients?	33.33	66.66	00.00	00.00	00.00	100.00
6.	-is your institution able to understand interrelationship of the various subsystem of the client system?	33.33	66.66	00.00	00.00	00.00	100.00

Table No. 3.1.2.3 shows the mean percentage of regional level educational resource system on structure factor. Almost all the ERS indicated that they were having a very high degree of structure in terms of coordination of efforts and meaningful division of labour. They functioned to a great extent as a whole.

(iv) At local level ERS:

Table No. 3.1.2.4. showing mean percentage of local level educational resource system on structure factor

S.No. Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -						
1. -has your institution a degree of structure in terms of meaningful division of labour	37.14	35.71	17.14	8.57	1.42	100.00
2. -has your institution a degree of structure in terms of co-ordination of efforts?	31.42	41.42	18.57	7.14	1.42	100.00
3. -does your institution function as a whole?	50.00	32.85	11.42	5.71	00.00	100.00
4. -has your institution a coherent view of its clients?	20.00	52.85	22.85	2.85	1.42	100.00
5. -has your institution an overall view of its clients?	18.57	45.71	30.00	4.28	1.42	100.00
6. -is your institution able to understand inter-relationship of the various sub-system of the client system?	15.71	35.71	37.14	10.00	1.42	100.00

Table No. 3.1.2.4 shows the mean percentage of local level educational resource system on structure factor. Approximately 73 percent ERS at local level responded that they were having to a great extent a high degree of structure in terms of coordination of efforts and meaningful division of labour, while more than 8 percent, ERS rarely had any degree of structure in terms of coordination of efforts and meaningful division of labour. Nearly 15 percent indicated that they functioned to some extent as a whole while 82 percent revealed that they functioned to a great extent as a whole. The local level ERS responded that they had to a great extent a coherent (72 percent) and overall view (64 percent) of their clients respectively. A few ERS revealed that they had rarely a coherent (4 percent) and overall (5 percent) view of the clients.

The effective dissemination and utilisation of innovations usually take place within a coherent framework. Successful utilisation activities tend to be structured activities and useful knowledge is structured knowledge. The extent to which structuring takes place in the sender and receiver and in the message seem to be important correlates of successful dissemination and utilisation. Havelock (1973) revealed that to be effective the resource system needs a degree of structure in terms of meaningful division of labour and coordination of efforts. It should be organised into a 'system' which function as a whole.

The resource system should have a structured and coherent view of the client system. It should be able to understand the various sub-systems of the client system and how they are interrelated. Mackie and Christensen (1967) found that there was no systematic planning for utilisation and therefore there were no developed mechanisms or structures for the necessary translation and integration of research findings for practical uses.

3.1.3.0. OPENNESS

(i) At national level ERS:

Table No. 3.1.3.1. Showing mean percentage of national level educational resource system on openness factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total Percentage
To what extent -							
1.	-has your institution willingness to help other institutions in the development of innovations?	60.00	40.00	00.00	00.00	00.00	100.00
2.	-has your institution readiness to be influenced by its clients' feedback?	50.00	40.00	10.00	00.00	00.00	100.00
3.	-has your institution readiness to be influenced by the new scientific knowledge?	60.00	40.00	00.00	00.00	00.00	100.00
4.	-does your institution possess flexibility towards innovations?	40.00	60.00	00.00	00.00	00.00	100.00
5.	-does your institution possess accessibility of new ideas?	40.00	60.00	00.00	00.00	00.00	100.00
6.	-has your institution demonstrability of innovations?	30.00	70.00	00.00	00.00	00.00	100.00
7.	-has your institution adaptability to innovations?	40.00	50.00	10.00	00.00	00.00	100.00

Table 3.1.3.1 shows the mean percentage of national level educational resource system on openness factor. Nearly all the national educational resource systems revealed that they were willing to help other institutions to a great extent in the development of innovations. Approximately all the national level resource systems showed their readiness to a great extent to be influenced by the clients' feedback and also by the new scientific knowledge. Almost all the national level educational resource systems revealed that they possessed a very high degree of flexibility, accessibility, demonstrability and adaptability towards innovations.

(ii) At State level ERS

TABLE No. 3.1.3.2 showing mean percentage of state level educational resource system on openness factor:

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent-							
1.	- has your institution willingness to help other institutions in the development of innovations?	50.00	41.66	8.33	00.00	00.00	100.00
2.	- has your institution rediness to be influenced by its clients' feedback	50.00	50.00	00.00	00.00	00.00	100.00

3. - has your institution readiness to be influenced by the new scientific knowledge?	58.33	41.66	00.00	00.00	00.00	100.00
4. - does your institution possess flexibility towards innovations?	50.00	41.66	8.33	00.00	00.00	100.00
5. - does your institution possess accessibility of new ideas	41.66	50.00	8.33	00.00	00.00	100.00
6. - has your institution demonstrability of innovations?	33.33	41.66	25.00	00.00	00.00	100.00
7. - has your institution adaptability of innovations?	33.33	41.66	25.00	00.00	00.00	100.00

Table 3.1.3.2 shows the mean percentage of state level educational resource system on openness factor. The state level ERS responded that they were having to a great extent the willingness to help other institutions in the development of innovations. Most of the state level ERS showed that they were having to a great extent the readiness to be influenced by their clients' feedback and new scientific knowledge. More than 91 percent of the state level ERS showed that they were possessing a high degree of flexibility and accessibility towards innovations. Approximately 75 percent of state level ERS indicated that they were possessing a high degree of demonstrability and adaptability towards innovations.

(iii) At Regional level ERS

TABLE 3.1.3.3. Showing mean percentage of regional level educational resource system on openness factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent-							
1.	-has your institution willingness to help other institutions in the development of innovations?	66.66	33.33	00.00	00.00	00.00	100.00
2.	-has your institution readiness to be influenced by its clients' feedback?	33.33	66.66	00.00	00.00	00.00	100.00
3.	-has your institution readiness to be influenced by the new scientific knowledge?	33.33	66.66	00.00	00.00	00.00	100.00
4.	-does your institution possess flexibility towards innovations?	66.66	33.33	00.00	00.00	00.00	100.00
5.	-does your institution possess accessibility of new ideas?	66.66	33.33	00.00	00.00	00.00	100.00
6.	-has your institution demonstrability of innovations?	33.33	66.66	00.00	00.00	00.00	100.00
7.	-has your institution adaptability to innovations?	66.66	33.33	00.00	00.00	00.00	100.00

Table 3.1.3.3. shows the mean percentage of regional level educational resource system on oppenness factor. Nearly all the regional level ERS showed that they were having to a great extent the willingness

to help other institutions in the development of innovations and were having to a great extent the readiness to be influenced by their clients' feedback and the new scientific knowledge and were having to a great extent accessibility and demonstrability of innovations and to a great extent the flexibility and adaptability to innovations.

(iv) At local level ERS

Table No. 3.1.3.4. showing mean percentage of local level educational resource system on openness factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent-							
1.	-has your institution willingness to help other institutions in the development of innovations?	45.71	41.42	7.14	4.28	1.42	100.00
2.	-has your institution readiness to be influenced by its clients' feedback?	24.28	52.85	18.57	2.85	1.42	100.00
3.	-has your institution readiness to be influenced by the new scientific knowledge?	40.00	45.71	10.00	4.28	00.00	100.00
4.	-does your institution possess flexibility towards innovations?	31.42	50.00	12.85	4.28	1.42	100.00
5.	-does your institution possess accessibility of new ideas?	37.14	42.85	17.14	1.42	1.42	100.00
6.	-has your institution demonstrability of innovations?	22.85	37.14	30.00	10.00	00.00	100.00
7.	-has your institution adaptability to innovations?	25.71	50.00	17.14	5.71	1.42	100.00

Table 3.1.3.4 showing the mean percentage of local level educational resource system on openness factor. Approximately 87 percent ERS responded that they were having to a great extent the willingness to help other institutions while 5 percent ERS responded that they were having to a little extent the willingness to help other institutions in the development of innovation. More than 76 per cent ERS revealed that they were having to a great extent the readiness to be influenced by their clients' feedback and the new scientific knowledge. Approximately 80 per cent ERS indicated that they were having to a great extent flexibility and accessibility towards innovations. 10 per cent ERS responded that they were hardly possessing any demonstrability of innovations while nearly 60 per cent responded that they were having to a great extent the demonstrability of innovations. 75 per cent of local level ERS indicated that they were having to a great extent the adaptability of innovations.

Openness of an organisation is fundamental to effective utilisation of the new knowledge. Closed systems and closed minds are incapable of taking in important new messages from outside. Openness is an important quality of innovative knowledge utilising resource system. Havelock (1973) explained that effective resource systems are open to influence and change both from the user and from other resource systems. It is also vital that practitioner resource systems renew their skills and their competence by continuously remaining open

3.1.4.0. CAPACITY

(i) At national level ERS

Table No. 3.1.4.1 showing mean percentage of national level educational resource system on capacity factor

S.No.	Statement	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
To what extent -							
1.	-does your institution possess a high degree of power?	50.00	30.00	20.00	00.00	00.00	100.00
2.	-does your institution possess a high degree of funds?	40.00	30.00	30.00	00.00	00.00	100.00
3.	-does your institution possess a high degree of academic environment?	30.00	70.00	00.00	00.00	00.00	100.00
4.	-does your institution possess a high degree of prestige?	50.00	50.00	00.00	00.00	00.00	100.00
5.	-does your institution utilise its own internal resources?	80.00	20.00	00.00	00.00	00.00	100.00

Table 3.1.4.1 shows the mean percentage score of national level educational resource system on capacity factor. More than 50 per cent of the national level ERS revealed that they were possessing a very high degree of prestige in the society and to a great extent, a high degree of academic environment. Approximately all the national level ERS were utilising to a great extent their internal resources for the development of innovations.

(ii) At State level ERS

Table No.3.1.4.2 showing mean percentage of state level educational resource system on capacity factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	- does your institution possess a high degree of power?	16.66	41.66	25.00	16.66	00.00	100.00
2.	- does your institution possess a high degree of funds?	00.00	25.00	41.66	25.00	8.33	100.00
3.	- does your institution possess a high degree of academic environment?	41.66	41.66	16.66	00.00	00.00	100.00
4.	- does your institution possess a high degree of prestige?	25.00	58.33	8.33	8.33	00.00	100.00
5.	- does your institution utilise its own internal resources?	33.33	41.66	16.66	8.33	00.00	100.00

Table 3.1.4.2 shows the mean percentage of state level educational resource system on capacity factor. Nearly 16 per cent state level ERS indicated that they were having to a little extent a high degree of power, while 57 percent were having to a considerable extent a high degree of power. More than 82 per cent of the ERS responded that they were possessing a considerable high degree of academic environment while 16 percent of the ERS were having to some extent a high degree of power. More than 73 per cent of ERS showed that they were possessing

a high degree of prestige and they were usually utilising their own internal resources. But a majority of ERS responded that they were not generally possessing a high degree of funds except the 25 per cent ERS which showed that they possessed a considerably high degree of funds.

(iii) At regional level ERS

Table No. 3.1.4.3. showing mean percentage of regional level educational resource systems on capacity factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-does your institution possess a high degree of power?	66.66	33.33	00.00	00.00	00.00	100.00
2.	-does your institution possess a high degree of funds?	100.00	00.00	00.00	00.00	00.00	100.00
3.	-does your institution possess a high degree of academic environment?	100.00	00.00	00.00	00.00	00.00	100.00
4.	- does your institution possess a high degree of prestige?	100.00	00.00	00.00	00.00	00.00	100.00
5.	-does your institution utilise its own internal resources?	33.33	66.66	00.00	00.00	00.00	100.00

Table 3.1.4.3. shows the mean percentage of regional level educational resource system on capacity factor. All the regional

level ERS responded that they possessed to a very great extent a high degree of funds, a high degree of academic environment and a high degree of prestige. Nearly all the ERS revealed that they possessed to a great extent a high degree of power and were utilising to a great extent their own internal resources.

(iv) At local level ERS

Table No. 3.1.4.4 showing mean percentage of the local level educational resource system on capacity factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-does your institution possess a high degree of power?	10.00	41.42	35.71	12.85	00.00	100.00
2.	-does your institution possess a high degree of funds?	4.28	28.57	37.14	21.42	8.57	100.00
3.	-does your institution possess a high degree of academic environment ?	24.28	51.42	18.57	5.71	00.00	100.00
4.	-does your institution possess a high degree of prestige?	30.00	45.71	17.14	7.14	00.00	100.00
5.	-does your institution utilise its own internal resources?	25.71	47.14	20.00	2.85	4.28	100.00

Table 3.1.4.4 shows the mean percentage of local level educational resource system on capacity factor. Approximately 51 per cent ERS responded that they were possessing to a great extent a high degree of power, while 12 percent ERS responded that they hardly possessed a high degree of power. 35 percent ERS responded that they were possessing to some extent a high degree of power. About 32 percent ERS revealed that they were possessing to a great extent a high degree of funds. But there were a few ERS (30 percent) which responded that they hardly possessed a high degree of funds. Nearly 75 percent ERS indicated that they possessed to a great extent a high degree of academic environment and prestige. Approximately 18 percent ERS revealed that they possessed to some extent a high degree of academic environment. Nearly 72 percent ERS responded that they utilised to a great extent their own internal resources, while 7 percent ERS hardly utilised their own internal resources.

It has been observed that those educational resource systems which already possess the most in the way of resources and capabilities are the most likely to be able to get more. According to Havelock (1973) the more power, prestige and capital possessed by the resource system, the more effective will it be as a resource and as a user. If the resource system collectively possess a high degree of intelligence, education, power and wealth, it will then have the ability to summon and invest diverse resources. It will be able to plan and

structure its activities on a grand scale over a long time to produce high performance products.

3.1.5.0. REWARD

(i) At national level ERS

Table No. 3.1.5.1 showing mean percentage of national level educational resource system on the Reward factor.

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
To what extent -							
1.	-does your institution perceive the relative advantage of its clients?	30.00	60.00	10.00	00.00	00.00	100.00
2.	-is your institution aware of the time saving potential?	30.00	50.00	20.00	00.00	00.00	100.00
3.	-is your institution aware of the relative value of innovations?	40.00	40.00	10.00	00.00	10.00	100.00
4.	-does your institution give frequent incentives to its clients?	10.00	60.00	20.00	10.00	00.00	100.00
5.	-has your institution sufficient grants and funds as reinforcement for its clients?	40.00	20.00	20.00	10.00	10.00	100.00

Table 3.1.5.1. shows the mean percentage of national level educational resource system on reward factor. 90 percent of the national level ERS responded that they perceived to a considerable extent the relative advantage of their clients. They revealed that they were aware to a great extent of the time saving potential and the relative value of innovations. 20 percent of national level ERS responded that they were having to a considerable extent sufficient grants and funds as reinforcement.

(ii) At State level ERS

Table No. 3.1.5.2 Showing mean percentage of state level educational resource system on reward factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-does your institution perceive the relative advantage of its clients?	25.00	50.00	8.33	8.33	8.33	100.00
2.	-is your institution aware of the time saving potential?	25.00	50.00	16.66	8.33	00.00	100.00
3.	-is your institution aware of the relative value of innovations?	50.00	33.33	16.66	00.00	00.00	100.00
4.	-does your institution give frequent incentives to its clients?	00.00	41.66	33.33	8.33	16.66	100.00
5.	-has your institution sufficient grants and funds as reinforcement for its clients?	8.33	8.33	33.33	33.33	16.66	100.00

Table 3.1.5.2. shows mean percentage of state level educational resource system on reward factor. Approximately 75 percent of ERS revealed that they perceived to a considerable extent the relative advantage of their clients and they were aware of the time saving potential. Nearly 16 percent of ERS also responded that they were rarely perceiving the relative advantage of their clients. Most of the ERS indicated that they were aware to a great extent of the relative value of innovations.

16 percent ERS indicated that they did not give frequent incentives to their clients. Majority of the state level ERS revealed that they were not having grants and funds sufficient as reinforcement for their clients. Nearly 66 percent of ERS responded that they were having to a little extent sufficient grants and funds as reinforcement for their clients.

(iii) At regional level ERS

Table No. 3.1.5.3. showing mean percentage of regional level educational resource system on reward factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approx-percentage
To what extent -							
1.	-does your institution perceive the relative advantage of its clients?	00.00	100.00	00.00	00.00	00.00	100.00
2.	-is your institution aware of the time saving potential?	00.00	100.00	00.00	00.00	00.00	100.00
3.	-is your institution aware of the relative value of innovations?	33.33	66.66	00.00	00.00	00.00	100.00
4.	-does your institution give frequent incentives to its clients?	33.33	66.66	00.00	00.00	00.00	100.00
5.	-has your institution sufficient grants and funds as reinforcement for its clients?	33.33	66.66	00.00	00.00	00.00	100.00

Table 3.1.5.3 shows mean percentage of regional level educational resource system on reward factor. Almost all the regional level ERS revealed that they perceived to a considerable extent the relative advantage of their clients. They were aware to a considerable extent of the time saving potential and the relative value of innovations. Approximately all the ERS indicated that they gave to a great extent frequent incentives to their clients and had sufficient grants and funds as reinforcement for their clients.

(iv) At local level ERS

Table No. 3.1.5.4. showing mean percentage of the local level educational resource system on the reward factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-does your institution perceive the relative advantage of its clients?	11.42	45.71	35.71	7.14	00.00	100.00
2.	-is your institution aware of the time saving potential?	15.71	37.14	38.57	7.14	1.42	100.00
3.	-is your institution aware of the relative value of innovations?	31.42	44.28	24.28	00.00	00.00	100.00
4.	-does your institution give frequent incentives to its clients?	11.42	32.85	42.85	11.42	1.42	100.00
5.	-has your institution sufficient grants and funds as reinforcement for its clients?	2.85	18.57	34.28	27.14	17.14	100.00

Table 3.1.5.4. shows the mean percentage of local level educational resource system on reward factor. Approximately 35 percent ERS mentioned that they perceived to some extent the relative advantage of their clients, while nearly 57 percent ERS responded that they perceived to a considerable extent the relative advantage of their clients. Nearly 52 percent ERS revealed that they were aware to a considerable extent of the time saving potential, while 75 percent ERS revealed that they were aware to a great extent of the relative value of innovations. Approximately 8 percent ERS mentioned that they were hardly aware of the time saving potential of innovations. 44 percent ERS responded that they gave to a great extent frequent incentives to their clients while 42 percent indicated that they gave to some extent frequent incentives to their clients. Nearly 20 percent ERS mentioned that they had sufficient grants and funds, while 34 percent ERS revealed that they had to some extent grants and funds as reinforcement for their clients. Nearly 12 percent ERS responded that they hardly gave frequent incentives to their clients and nearly 44 percent ERS mentioned that they were not having sufficient grants and funds as reinforcement for their clients.

Profitability to the user is quite important. Rogers (1962) uses the term 'relative advantage' to indicate the value return in proportion to investment of dollars, time and effort. Perceived relative advantage is as important as actual reward value and the past experience of reward for utilisation effort is even more important. Rewarding encounters with new knowledge lead to self fulfilling prophesies that future encounters will also be rewarding. The reward

value of a message is extremely important. Certain rewards in particular times and circumstances clearly over-rides others which have logical priority. Profitability or anticipated profitability is a major incentive for diffusion of innovations. Resource systems are required profitability. If a resource system does not give consistent rewards to their clients in terms that are meaningful to them, then they are likely to be discontinued.

3.1.6.0. PROXIMITY

(i) At national level ERS

Table No. 3.1.6.1. showing mean percentage of national level educational resource system on proximity factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
To what extent -							
1.	-does your institution offer easy accessibility with other resource institutions?	40.00	60.00	00.00	00.00	00.00	100.00
2.	-does your institution offer easy linkage with other resource institutions?	40.00	50.00	10.00	00.00	00.00	100.00
3.	-is your institution cosmopolitan in nature?	80.00	10.00	10.00	00.00	00.00	100.00
4.	-has your institution proximity to its clients geographically?	10.00	20.00	10.00	30.00	30.00	100.00
5.	-has your institution proximity to its clients psychologically?	40.00	40.00	20.00	00.00	00.00	100.00
6.	-does your institution develop innovations which have similarity with past innovations which your clients have adopted?	10.00	30.00	40.00	20.00	00.00	100.00
7.	-has your institution a high degree of proximity to its clients?	30.00	30.00	20.00	20.00	00.00	100.00
8.	-has your institution a high degree of familiarity with its clients?	40.00	50.00	10.00	00.00	00.00	100.00

Table 3.1.6.1. shows the mean percentage of national level educational resource system on proximity factor. Almost all the national level resource systems reported that they were having to a great extent a very high degree of linkage and easy accessibility with other resource institutions. More than 80 percent of the national level ERS reported that they were having a high degree of psychological proximity to their clients. Most of the national level ERS mentioned that they did not develop innovations which were having similarity with the past innovations. A few national level ERS (20 percent) responded that they were having a little degree of proximity to their clients. Almost all the national level ERS reported that they were having a high degre of familiarity with their clients.

(ii) At state level ERS

Table No. 3.1.6.2. Showing mean percentage of the state level educational resource systems on proximity factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	- does your institution offer easy accessibility with other resource institutions?	25.00	50.00	16.66	8.33	0.00	100.00
2.	- does your institution offer easy linkage with other resource institutions?	41.66	33.33	25.00	00.00	00.00	100.00
3.	- is your institution cosmopolitan in nature?	41.66	8.33	25.00	16.66	8.33	100.00
4.	- has your institution proximity to its clients geographically?	16.66	41.66	8.33	33.33	00.00	100.00
5.	- has your institution proximity to its clients psychologically?	25.00	25.00	33.33	16.66	00.00	100.00
6.	- does your institution develop innovations which have similarity with past innovations which your clients have adopted?	8.33	33.33	16.66	25.00	16.66	100.00
7.	- has yourinstitution a high degree of proximity to its clients?	16.66	50.00	25.00	8.33	00.00	100.00
8.	- has your institution a high degree of familiarity with its clients?	41.66	33.33	25.00	00.00	00.00	100.00

Table 3.1.6.2. shows mean percentage of the state level educational resource system on proximity factor. Approximately 75 percent ERS responded that they were having to a great extent an easy accessibility and linkage with other resource systems. Nearly 50 percent of ERS were found to be highly cosmopolitan in nature, whereas, about 25 percent ERS were to some extent cosmopolitan in nature. 50 percent ERS responded that they were having a high degree of proximity to their clients geographically and 58 percent ERS were having a high degree of proximity as psychologically. A few ERS were having a low degree of proximity to their clients geographically (40 percent) as well as psychologically (50 percent). Approximately 25 percent ERS rarely developed innovation which were having similarity with past innovations, while 16 percent ERS almost never developed innovations which were having similarity with past innovations. Majority of ERS revealed that they had a very high degree of familiarity with their clients, while 66 percent showed that they had a very high degree of proximity to their clients.

(iii) At regional level ERS

Table No. 3.1.6.3. showing mean percentage of regional level educational resource system on proximity factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approx. percentage
To what extent -							
1.	-does your institution offer easy accessibility with other resource institutions?	33.33	66.66	00.00	00.00	00.00	100.00
2.	-does your institution offer easy linkage with other resource institutions?	33.33	66.66	00.00	00.00	00.00	100.00
3.	-is your institution cosmopolitan in nature?	66.66	33.33	00.00	00.00	00.00	100.00
4.	-has your institution proximity to its clients geographically?	66.66	33.33	00.00	00.00	00.00	100.00
5.	-has your institution proximity to its clients psychologically?	66.66	33.33	00.00	00.00	00.00	100.00
6.	-does your institution develop innovations which have similarity with past innovations which your clients have adopted?	66.66	00.00	33.33	00.00	00.00	100.00
7.	-has your institution a high degree of proximity to its clients?	33.33	66.66	00.00	00.00	00.00	100.00
8.	-has your institution a high degree of familiarity with its clients?	66.66	33.33	00.00	00.00	00.00	100.00

Table 3.1.6.3. shows the mean percentages of regional level educational resource system on proximity factor. All the regional level ERS mentioned that they offered to a great extent easy accessibility and linkage with other resource institutions. All the regional level ERS indicated that they were cosmopolitan to a great extent in nature and they were having to a great extent the proximity to their clients geographically as well as psychologically. Nearly 66 percent ERS responded that they developed to a very great extent innovations which were having similarity with past innovations. Approximately 33 percent ERS responded that they developed to some extent innovations which were having similarity with past innovations. It was found that all the ERS were having to a great extent a high degree of proximity and familiarity with their clients.

(iv) At local level ERS

Table No. 3.1.6.4 showing mean percentage of local level educational resource system on proximity factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approx-percentage
To what extent -							
1.	-does your institution offer easy accessibility with other resource institutions?	15.71	47.14	24.28	5.71	7.14	100.00
2.	-does your institution offer easy linkage with other resource institutions?	18.57	45.71	24.25	5.71	5.71	100.00
3.	-is your institution cosmopolitamin nature?	38.57	32.85	21.42	2.85	2.85	100.00
4.	-has your institution proximity to its clients geographically?	8.57	44.28	32.85	7.14	7.14	100.00
5.	-has your institution proximityto its clients psychologically?	20.00	48.57	25.71	2.85	2.85	100.00
6.	-does your institution develop innovations which have similarity with past innovations which your clients have adopted?	2.86	32.86	41.43	15.71	7.14	100.00
7.	-has your institution a high degree of proximity to its clients?	10.00	41.42	37.14	10.00	1.42	100.00
8.	-has your institution a high degree of familiarity with its clients?	14.28	61.42	15.71	7.14	1.42	100.00

Table 3.1.6.4. shows mean percentage of local level educational resource system on proximity factory. More than 11 percent ERS mentioned that they hardly offered any accessibility and linkage with other resource institutions, while more than 62 percent ERS mentioned that they offered to a great extent easy accessibility and linkage with other resource institutions. 24 percent ERS mentioned that they offered to some extent easy accessibility and linkage to other resource institutions. More than 70 percent ERS mentioned that they were having to a great extent a cosmopolitan nature, while 21 percent ERS mentioned that they were cosmopolitan to some extent in nature. More than 52 percent ERS responded that they had to a great extent proximity to their clients geographically while 68 percent ERS mentioned that they were having to a great extent proximity to their clients psychologically. A few ERS mentioned that they were having hardly any proximity to their clients geographically (14 percent) and psychologically (5 percent). Most of ERS (41 percent) mentioned that they developed to some extent innovations which were having similarity with past innovations, while 22 percent ERS hardly developed innovations which were having similarity with past innovations. Majority of ERS mentioned that they were having to a great extent a high degree of proximity to their clients (52 percent) and familiarity with their clients (75 percent). A few ERS indicated that they were having hardly any proximityto their clients (11 percent) and familiarity with their clients (8 percent).

Proximity is a powerful tool of utilisation. Users who have close proximity to resources are more likely to use them. According to Havelock (1973), the most effective resource systems are those which have easy access and linkage to other resource systems. He further suggests that resource systems should also be proximate to users both geographically as well as psychologically. The proximity of users to one another is important because it increases the likelihood that users will be aware of common interests and needs and will pool their internal resources.

3.1.7.0. SYNERGY

(i) At national level ERS

Table 3.1.7.1. Showing the mean percentage of national level educational resource system on synergy factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
To what extent -							
1.	-has your institution a high degree of persistent leadership?	60.00	40.00	00.00	00.00	00.00	100.00

2.	-does your institution spread over a variety of messages in sequence to its clients?	10.00	50.00	40.00	00.00	00.00	100.00
3.	-does your institution focus on the variety of messages in repetition to the clients?	10.00	40.00	50.00	00.00	00.00	100.00
4.	-does your institution depend upon the number of resourceful persons who gain access to their clients?	40.00	50.00	10.00	00.00	00.00	100.00
5.	-does your institution depend upon the diversity of resourceful persons who gain access to their clients?	30.00	30.00	30.00	10.00	00.00	100.00
6.	-does your institution depend upon the number of change agents who gain access to their clients?	30.00	30.00	20.00	20.00	00.00	100.00
7.	-does your institution depend upon the diversity of change agents who gain access to their clients?	20.00	40.00	30.00	10.00	00.00	100.00
8.	-does your institution repeat the message over and over before it gets adopted?	20.00	70.00	10.00	00.00	00.00	100.00

Table 3.1.7.1 shows the mean percentage of national level educational resource system on synergy factor. It has been found that almost all the national level ERS possessed a high degree of persistent leadership and usually they depended upon the number of resourceful persons who gained access to their clients. A few national level ERS (40 percent) spread over a variety of messages to some extent in sequence to their clients. These ERS (50 percent) sometimes used to focus on the variety of the messages in repetition. Approximately 60 percent of the national level ERS usually depended to a considerable extent upon the diversity of resourceful persons and diversity of change agents. Almost all the national level ERS mentioned that they used to repeat to a great extent the messages over and over before it gets adopted.

(ii) At state level ERS

Table 3.1.7.2. showing mean percentage of state level educational resource system on synergy factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-has your institution a high degree of persistent leadership	41.66	33.33	16.66	8.33	00.00	100.00

2. -does your institution spread over a variety of messages in sequence to its clients?	33.33	25.00	33.33	8.33	00.00	100.00
3. -does your institution focus on the variety of messages in repetition to the clients?	33.33	16.66	41.66	8.33	00.00	100.00
4. -does your institution depend upon the number of resourceful persons who gain access to their clients?	8.33	41.66	50.00	00.00	00.00	100.00
5. -does your institution depend upon the diversity of resourceful persons who gain access to their clients?	8.33	50.00	25.00	16.66	00.00	100.00
6. -does your institution depend upon the number of change agents who gain access to their clients?	00.00	41.66	25.00	25.00	8.33	100.00
7. -does your institution depend upon the diversity of change agents who gain access to their clients?	00.00	41.66	16.66	33.33	8.33	100.00
8. -does your institution repeat the message over and over before it gets adopted?	8.33	58.33	25.00	8.33	00.00	100.00

Table3.1.7.2. shows the mean percentage of state level educational resource system on synergy factor. Majority of ERS indicated that they were possessing a high degree of persistent leadership. About 58 percent ERS responded that they usually used to spread over a variety of messages in sequence to their clients and nearly 50 percent ERS responded that they were usually spreading over a variety of messages in repetition to their clients. Almost all the ERS revealed that they were depending to a considerable extent upon the number and diversity of resourceful persons who gained access to their clients. A few ERS responded that they were depending to a little extent upon the number (33 percent) and diversity (42 percent) of change agents. A few state level ERS (41 percent) revealed that they were depending to a great extent upon the number and diversity of the change agents. Approximately 66 percent ERS indicated that they used to repeat to a great extent the message over and over before it gets adopted. Nearly 25 percent ERS responded that they used to repeat sometimes the message over and over before it gets adopted.

(iii) At regional level ERS

Table No. 3.1.7.3. showing mean percentage of regional level educational resource systems on synergy factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-has your institution a high degree of persistent leadership?	66.66	33.33	00.00	00.00	00.00	100.00
2.	-does your institution spread over a variety of messages in sequence to its clients?	66.66	33.33	00.00	00.00	00.00	100.00
3.	-does your institution focus on the variety of messages in repetition to the clients?	66.66	33.33	00.00	00.00	00.00	100.00
4.	-does your institution depend upon the number of resourceful persons who gain access to their clients?	66.66	33.33	00.00	00.00	00.00	100.00
5.	-does your institution depend upon the diversity of resourceful persons who gain access to their clients?	33.33	66.66	00.00	00.00	00.00	100.00
6.	-does your institution depend upon the number of change agents who gain access to their clients?	00.00	66.66	33.33	00.00	00.00	100.00
7.	-does your institution depend upon the diversity of change agents who gain access to their clients?	00.00	66.66	33.33	00.00	00.00	100.00
8.	-does your institution repeat the message over and over before it gets adopted?	00.00	100.00	00.00	00.00	00.00	100.00

Table 3.1.7.3. shows mean percentage of regional level educational resource system on proximity factor. Almost all the ERS were having to a great extent a high degree of persistent leadership. Approximately all the regional level ERS indicated that they spreaded and focussed to a great extent on a variety of messages in sequence and repetition. Nearly all the regional level ERS revealed that they were depending to a great extent upon the number and diversity of resourceful persons who gain access to their clients. Regional level ERS (66 percent) indicated that they were depending to a considerable extent upon the number and diversity of change agents. Nearly all the regional level ERS were repeating to a considerable extent the message over and over before it gets adopted.

(iv) At local level ERS

Table No. 3.1.7.4. showing mean percentage of local level educational resource system on synergy factor

S.No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-has your institution a high degree of persistent leadership?	27.14	42.85	21.42	7.14	1.42	100.00

2. -does your institution spread over a variety of messages in sequence to its clients?	11.42	35.71	35.71	14.28	2.85	100.00
3. -does your institution focus on the variety of messages in repetition to the clients?	2.85	35.71	42.85	15.71	2.85	100.00
4. -does your institution depend upon the number of resourceful persons who gain access to their clients?	5.71	40.00	31.42	17.14	5.71	100.00
5. -does your institution depend upon the diversity of resourceful persons who gain access to their clients?	7.14	34.28	40.00	14.28	4.28	100.00
6. -does your institution depend upon the number of change agents who gain access to their clients?	7.14	20.00	45.71	18.57	8.57	100.00
7. -does your institution depend upon the diversity of change agents who gain access to their clients?	7.14	24.28	41.42	18.57	8.57	100.00
8. -does your institution repeat the message over and over before it gets adopted?	8.57	28.57	37.14	20.00	5.71	100.00

Table 3.1.7.4. shows the mean percentage of local level educational resource system on synergy factor. Approximately 8 percent ERS indicated that they were not having a high degree of persistent leadership. More than 16 percent ERS responded that they were rarely spreading over a variety of messages in sequence and repetition to their clients. Nearly 40 percent ERS showed that they were depending to a considerable extent upon the number and diversity of the resourceful persons. A few ERS revealed that they were depending to agreat extent upon the number and diversity of change agents, while nearly 18 percent ERS revealed that they were depending to a little extent upon the number and diversity of change agents. Nearly 45 percent ERS reported that they were depending to some extent upon the number of change agents. Approximinately 37 percent of ERS indicated that they were repeating the messages to a great extent over and over before it gets adopted and nearly 20 percent ERS indicated that they were repeating to a little extent the message over and over before it gets adopted. Nearly 37 percent ERS responded that they repeated to some extent the message over and over.

The user can hardly ever be induced to adopt an innovation on the basis of message from one source at one time. He almost always needs repeated inputs in a variety of media over an extended time for a variety of sources before he will

become an adopter. According to Havelock (1973) successful utilisation usually seems to require persistent leadership in the resource system. There must be a person or some nuclear group pulling together diverse resources, structuring them and developing and executing strategies for their effective dissemination and utilisation. The persistence of the transmission is an important additional aspect of media synergy. Rogers (1962) reports that adoption rate is consistently correlated with the extent of promotional effort by the change-agent. Advertisers follow the same principle when they repeat a television commercial over and over again and follow up with free mailed samples, bill boards and door-to-door canvassing.

OBJECTIVE NO: 2

3.2.0.0 PROCESS OF DEVELOPING INNOVATIONS

Table No. 3.2.0.0. Showing mean percentage score of PDI of the educational resource system (ERS)

Sl.No.	Educational resource system	Awareness about innovations	Sources of getting ideas about innovations	Shaping of innovations
1.	Total ERS	31.26 (78.15)	64.63 (64.63)	92.29 (73.83)
2.	ERS at national level	33.40 (83.50)	69.90 (69.90)	94.30 (75.44)
3.	ERS at state level	34.00 (85.00)	67.58 (67.58)	101.00 (80.80)
4.	ERS at regional level	36.66 (91.65)	80.66 (80.66)	95.00 (76.00)
5.	ERS at local level	30.25 (75.62)	62.68 (62.68)	90.40 (72.32)

Where: ERS = Educational resource system - PDI = Process of developing innovation (Figures in brackets indicate mean percentage score)

Educational resource systems of India at various levels are found to have the highest mean percentage score with regard to the awareness of innovations (78.15) and lowest with regard to getting the sources of information about innovations (64.63). The mean percentage score with regard to shaping of innovations in educational resource systems of various levels in India is found to be quite high (73.83).

The educational resource systems at national, regional, state and local levels are found to have a high mean percentage score in respect of awareness to initiate innovations while a low mean percentage score with regard to sources of getting information to develop innovations. The educational resource systems at regional level (Regional Colleges of Education) and at state level (State Institutes of Education) are found to be having the highest mean percentage score with regard to their awareness about innovations, sources of getting information about innovation and shaping of innovations. The local level educational resource systems (departments of education and Colleges of Education) are found to have the minimum mean percentage score with regard to their awareness of innovations, sources of getting information about innovations and shaping of innovations. The educational resource systems at national level are found to have a high score with regard to their awareness of innovations and a low score with regard to getting the sources of information for developing innovations. It can therefore be concluded:

(i) Awareness of innovations is high at all levels of ERS;

(ii) Sources of getting ideas about innovations is fairly good at national, state and regional levels and the same has been observed to be comparatively poor at local level ERS.

(iii) Shaping of innovation has been observed to be good at all levels of ERS.

Thus, we can infer that given the availability of sources of getting ideas about innovation and consequent awareness, the shaping of innovations can properly be taken care of at all levels.

The process of developing innovations involves three important stages, namely, awareness of innovations, sources of getting information about innovations and shaping of innovations. These stages have been discussed in detail with each level of resource system.

3.2.1.0. AWARENESS OF INNOVATIONS

(i) At national level ERS

Table No. 3.2.1.1. Showing mean percentage of national level educational resource system on awareness of innovations

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total %
How often -							
1.	-does your institution feel that the educators must introduce the kinds of innovations that will transform educational institutions into dynamic organisations?	80.00	20.00	00.00	00.00	00.00	100.00
2.	-does your institution feel that innovations are required to meet the need of present educational system?	50.00	50.00	00.00	00.00	00.00	100.00
3.	-does your institution develop innovations based on the need of present education system?	40.00	60.00	00.00	00.00	00.00	100.00
4.	-is your institution aware of the current educational problems?	40.00	60.00	00.00	00.00	00.00	100.00

5. -are innovations developed in your institution represented a change from what was available earlier?	60.00	40.00	00.00	00.00	00.00	100.00
6. -does it happen in your institution that procedure of developing innovations is based on compatibility of innovations?	50.00	40.00	10.00	00.00	00.00	100.00
7. -does it happen in your institution that the procedure of developing innovation are based on the personal policies?	00.00	00.00	10.00	80.00	10.00	100.00
8. -is your institution aware of the future educational problems arising from socio-economic change?	40.00	50.00	10.00	00.00	00.00	100.00

Table 3.2.1.1 shows the mean percentage of national level educational resource system on awareness of innovation. Almost all the national level ERS mentioned that educators must introduce the kinds of innovations that would transform educational institutions into dynamic organisations. These ERS always felt that innovations are required to meet the need of present educational system. Usually the development of innovations at national level ERS was found to be based on the need of the present education system and compatibility of innovations. Rarely the procedure of developing innovations at national level ERS was found to be based on the personal policies. All the national level ERS mentioned that they usually remained aware of the current and future educational problems and developed innovations which represented a change from what was available earlier.

(ii) At state level ERS

Table No. 3.2.1.2. Showing the mean percentage of state level educational resource system on awareness of innovations

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
	How often -						
1.	-does your institution feel that the educators must introduce the kinds of innovations that will transform educational institutions into dynamic organisations?	75.00	25.00	00.00	00.00	00.00	100.00
2.	-does your institution feel that innovations are required to meet the need of present educational system?	75.00	25.00	00.00	00.00	00.00	100.00
3.	-does your institution develop innovation based on the need of present system?	58.33	41.66	00.00	00.00	00.00	100.00
4.	-is your institution aware of the current educational problems?	75.00	25.00	00.00	00.00	00.00	100.00
5.	-are innovations developed in your institution represented a change from what was available earlier?	25.00	75.00	00.00	00.00	00.00	100.00
6.	-does it happen in your institution that procedure of developing innovations are based on compatibility of innovations?	16.66	75.00	8.33	00.00	00.00	100.00
7.	-does it happen in your institution that the procedure of developing innovations are based on the personal policies?	00.00	33.33	8.33	25.00	33.33	100.00

8. -is your institution aware of the future educational problems arising from socio-economic change?	41.66	58.33	00.00	00.00	00.00	100.00

Table 3.2.1.2. shows the mean percentage of state level ERS on awareness of innovations. Approximately all the state level ERS always felt that the educators must introduce the kind of innovations that would transform educational institutions into dynamic organisations and should meet the needs of present educational system. All the state level ERS were found to be always aware of the current and future educational problems. All the state level ERS mentioned that the innovations developed usually represented a change from what was available earlier. A large number of state level ERS reported that the procedure of developing innovations was based on the need of present education system, and compatibility of innovations and rarely on the personal policies.

(iii) At regional level ERS

Table No. 3.2.1.3. showing the mean percentage of regional level educational resource system on awareness of innovations

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							

1. -does your institution feel that the educators must introduce the kinds of innovations that will transform educational institutions into dynamic organisations?	100.00	00.00	00.00	00.00	00.00	100.00
2. -does your institution feel that innovations are required to meet the need of present educational system?	100.00	00.00	00.00	00.00	00.00	100.00
3. -does your institution develop innovation based on the need of present education system?	100.00	00.00	00.00	00.00	00.00	100.00
4. -is your institution aware of the current educational problems?	100.00	00.00	00.00	00.00	00.00	100.00
5. -are innovations developed in your institution represented a change from what was available earlier?	66.66	33.33	00.00	00.00	00.00	100.00
6. -does it happen in your institution that procedure of developing innovations are based on compatibility of innovations?	33.33	66.66	00.00	00.00	00.00	100.00
7. -does it happen in your institution that the procedure of developing innovations are based on the personal policies?	33.33	33.33	00.00	33.33	00.00	100.00

8. -is your institution aware of future educational problems arising from socio-economic changes?	00.00	100.00	00.00	00.00	00.00	100.00

Table 3.2.1.3. shows the mean percentage of regional level educational resource system on awareness of innovations. All the regional level ERS mentioned that they always felt that educators must introduce the kinds of innovations that would transform educational institutions into dynamic organisations and should meet the need of present education system. All the regional level ERS revealed that they were usually remained aware of current and future educational problems. Regional level ERS indicated that the innovations developed were usually based on the need of the present education system and on the compatibility of innovations. 33 per cent regional level ERS revealed that the innovations developed were rarely based on the personal policies. All the regional level ERS mentioned that usually the innovations developed represented a change from what was available earlier.

(iv) At local level ERS

Table No. 3.2.1.4. showing the mean percentage of local level educational resource system on awareness of innovations

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	-does your institution feel that the educators must introduce the kinds of innovations that will transform educational institutions into dynamic organisation?	54.28	32.85	10.00	1.42	1.42	100.00
2.	-does your intitution feel that innovations are required to meet the need of present educational system?	51.42	34.28	14.28	00.00	00.00	100.00
3.	-does your institution develop innovations based on the need of present education system?	17.14	34.28	35.71	12.85	00.00	100.00

4. -is your institution aware of the current educational problems?	54.28	32.85	11.42	1.42	00.00	100.00
5. -are innovations developed in your institution represented a change from what was available earlier?	17.14	35.71	27.14	18.57	1.42	100.00
6. -does it happen in your institution that procedure of developing innovations are based on compatibility of innovations?	11.42	48.57	22.85	14.28	2.85	100.00
7. -does it happen in your institution that the procedure of developing innovations are based on the personal policies?	7.14	20.00	31.42	17.14	24.28	100.00
8. -is your institution aware of future educational problems arising from socio-economic change?	27.14	47.14	15.71	10.00	00.00	100.00

Table 3.2.1.4 shows the mean percentage of local level educational resource system on awareness of innovations. Approximately 86 percent of local level

ERS usually feel that educators must introduce the kinds of innovations which should meet the need of the present educational system and would transform educational institutions into dynamic organisations. A few local level ERS mentioned that usually innovations developed were based on the need of present education system (51 per cent), on compatibility of innovations (60 percent) and on the personal policies (27 percent). But some of the local level ERS indicated that the innovations developed were rarely based on the need of present education system (12 percent), compatibility of innovations (17 percent) and on personal policies (41 percent). ERS at local level revealed that they were usually remained aware of current (87 percent) and future (74 percent) educational problems. Nearly 20 percent ERS mentioned that the innovations developed rarely represented a change from what was available earlier.

Almost all the ERS at national, state and regional levels usually feel that the educators must introduce the kinds of innovations that will transform educational institutions into dynamic organisations. It is also felt that innovations are required to meet the needs of the present educational system. Usually in almost all the ERS at national and state levels, it was found that innovations developed are based on the need of present education system and on compatibility of innovation and

Rarely on personal policies. Almost all the ERS at national, state and regional levels are aware of the current educational problems and future educational problems arising from socio-economic change. Majority of ERS at local level feel that educators must introduce the kinds of innovations which meet the needs of present education systems. The innovations developed in ERS are based usually on the needs of present education system, compatibility of innovations and sometimes on the personal policies. It can be concluded from the inferences that educational resource systems at national, state and regional levels are aware to a great extent of the educational problems and need for innovation. The local level educational resource systems are also aware to a considerable extent of the current as well as future educational problems. It was also revealed that the development of innovations at local level is to some extent also based on the personal policies. This is also true to some extent at the regional level educational resource systems.

3.2.2.0. SOURCES OF GETTING IDEAS ABOUT INNOVATION

It includes the following steps:

3.2.2.1 Sending experts abroad, transplantation of innovations and selection and initiation of innovations due to financial aid, initiation by other institutions and prestige.

3.2.2.2 Survey, research reports, journals and newspapers as sources of getting innovative ideas.

3.2.2.3 Taking suggestions into cognizance made by various agencies for the development of innovations

3.2.2.1 Sending Experts, Transplantation of Innovations from Abroad, Selection and Initiation due to Financial Aid, Initiation by other Institution and Prestige.

(i) At national level ERS

Table No.3.2.2.1 showing the mean percentage of national level educational resource system on sending experts, transplantation of innovations and selection and initiation of innovations due to financial aid, initiation by other institution and prestige.

S.No.	Statements	Almost always	Usually	Some times	Rarely	Almost never	Total percentage
1.	- How often -						
1.	- does your institution send experts to study the innovations of education in advanced countries?	20.00	40.00	40.00	00.00	00.00	100.00
2.	- does your institution transplant innovations from advanced countries?	00.00	10.00	50.00	40.00	00.00	100.00
3.	- does your institution select innovations because financial assistance is provided from various agencies?	00.00	00.00	40.00	50.00	10.00	100.00
4.	- does your institution initiate innovations because other institutions have also initiated?	00.00	00.00	30.00	50.00	20.00	100.00
5.	- does your institution develop innovations because it gives prestige to your institution?	00.00	00.00	10.00	70.00	20.00	100.00

Table 3.2.2.1 shows the mean percentage of the national level educational resource system on sending experts, transplantation of innovations from abroad, selection and initiation due to financial aid, initiated by other institution and prestige. 60 percent national level ERS responded that they used to send usually the experts to study the innovations of education in advanced countries, while 40 percent ERS mentioned that they used to send sometimes the experts to study the educational innovations to advanced countries. 40 percent ERS mentioned that they rarely transplanted innovations from advanced countries, while 50 percent ERS mentioned that they transplanted sometimes innovations from advanced countries. 60 percent ERS responded that they selected innovations rarely because financial assistance was provided from various agencies. 70 percent ERS indicated that they rarely initiated innovations because other institutions have also initiated, while 30 percent ERS mentioned that they sometimes initiated innovations as these were initiated in other institutions. Almost all ERS (90 percent) mentioned that they rarely initiated innovations because these gave prestige to their resource systems.

(ii) <u>At state level ERS</u>

Table No. 3.2.2.2 showing the mean percentage of the state level educational resource system on sending experts, transplantation of innovations and selection and initiation of innovations due to financial aid, initiation by other institutions and prestige.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	- does your institution send experts to study the innovations of education in advanced countries?	16.66	00.00	25.00	16.66	41.66	100.00
2.	- does your institution transplant innovations from advanced countries?	8.33	00.00	50.00	16.66	25.00	100.00
3.	- does your institution select innovations because financial assistance is provided from various agencies?	00.00	8.33	41.66	8.33	41.66	100.00
4.	- does your institution initiate innovations because other institutions have also initiated?	8.33	8.33	8.33	50.00	25.00	100.00
5.	- does your institution develop innovations because it gives prestige to your institution?	16.66	33.33	00.00	41.66	8.33	100.00

Table 3.2.2.2. shows the mean percentage of state level educational resource system on sending experts, transplantation of innovations from abroad, selection and initiation due to financial aid, initiated by other institutions and prestige. [illegible] The ERS at state level mentioned that they sometimes sent experts to advanced countries to study the innovations of education (25 percent) and transplanted sometimes innovations

from advanced countries (50 percent). But a few ERS responded that they rarely sent experts to advanced countries to study innovations in education (58 percent) and rarely transplated innovations from advanced countries (41 percent). A large number of state level ERS mentioned that they rarely selected innovations because financial assistance was provided from various agencies (50 percent) and because the other institutions also initiated (75 percent). A few state level ERS sometimes selected innovations because financial assistance was provided from various agencies (41 percent). ERS at state level (50 percent) mentioned that they usually developed innovations because they gave prestige to their resource system while 50 percent ERS at state level mentioned that they rarely developed innovations because these gave prestige to their resource system.

(iii) <u>At regional level ERS</u>

Table No. 3.2.2.3. showing mean percentage of regional level educational resource system on sending experts, transplantation of innovations, selection and initiation of innovations due to financial aid, initiation by <u>other institution and prestige</u>.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1. -	does your institution send experts to study the innovations of education in advanced countries?	33.33	66.66	00.00	00.00	00.00	100.00
2. -	does your institution transplant innovations from advanced countries?	33.33	00.00	66.66	00.00	00.00	100.00

3. - does your institution select innovations because financial assistance is provided from various agencies?	33.33	00.00	66.66	00.00	00.00	100.00
4. - does your institution initiate innovations because other institutions have also initiated?	33.33	00.00	33.33	33.33	00.00	100.00
5. - does your institution develop innovations because it gives prestige to your institution?	33.33	66.66	00.00	00.00	00.00	100.00

Table 3.2.2.3 shows the mean percentage of regional level educational resource system on sending experts, transplantation of innovations from abroad, selection and initiation due to financial aid, initiated by other institutions and prestige. Almost all the regional level ERS mentioned that they usually sent experts to advanced countries to study educational innovations and usually developed innovations because these gave prestige to their resource systems. Nearly 66 percent regional level ERS indicated that they sometimes transplanted innovations from advanced countries and selected innovations because financial assistance was provided from various agencies. A few ERS mentioned that they rarely developed innovations because other institutions also initiated.

(iv) <u>At local level ERS</u>

Table No. 3.2.2.4 showing the mean percentage of local level educational resource system on sending experts, transplantation of innovations, selection and initiation of innovations due to financial aid, initiation by <u>other institution and prestige</u>.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	- does your institution send experts to study the innovations of educations in advanced countries?	5.71	8.57	17.14	21.42	47.14	100.00
2.	- does your institution transplant innovations from advanced countries?	2.85	10.00	25.71	41.42	20.00	100.00
3.	- does your institution select innovations because financial assistance is provided from various agencies?	00.00	10.00	31.42	37.14	21.42	100.00
4.	- does your institution initiate innovations because other institutions have also initiated?	00.00	8.57	32.85	34.28	24.28	100.00
5.	- does your institution develop innovations because it gives prestige to your institution?	2.85	11.42	31.42	32.85	21.42	100.00

Table 3.2.2.4 shows the mean percentage of local level educational resource system on sending experts, transplantation of innovations from abroad, selection and initiation due to financial aid, initiated by other institutions and prestige. A large number of local level ERS mentioned that they rarely send experts to advanced countries to study innovations in education (68 percent), rarely transplanted innovations from

advanced countries (61 percent) and rarely selected innovations because financial assistance was provided from various agencies (58 percent). Most of the ERS at local level revealed that they rarely initiated innovations because other resource systems also initiated (58 percent) and because these gave prestige to their resource systems (54 percent). A few local level ERS indicated that they sometimes selected innovations because financial assistance was provided from various agencies (31 percent), because other institutions also initiated (32 percent) and because it gave prestige to their resource systems (31 percent).

It is also observed from the above findings that approximately all the national and regional levels educational resource systems send their experts to study the innovations of education in advanced countries and sometimes transplant innovations from advanced countries. A large number of state and local levels educational resource systems rarely send their experts to advanced countries to study the innovations in education and rarely transplant innovations from the advanced countries. It can be concluded that national and regional levels educational resource systems having sufficient resources can afford to send experts to advanced countries and generally these experts come with new ideas which they like to develop here while local and state levels educational resource systems having low resources and facilities do not get much opportunities for such studies.

A few educational resource systems at national, state, regional and local levels sometimes select innovations because

financial assistance is provided to them from various agencies. But more than 50 percent of national and state level educational resource systems rarely select innovations for development because financial assistance is provided to them and rarely because other institutions have also started them. Innovations have not been initiated in almost all the national and local levels educational resource systems because it gives prestige to them. It can be concluded that in general innovations were not selected for the development in almost all the educational resource systems in India because other institutions have also started them and because these give prestige to them. Financial assistance was found to be one of the important factors which to some extent facilitated the selection and development of innovations at all the levels of educational resource systems in India. But it was not always true that innovations were selected and developed at educational resource systems in India due to financial assistance only.

3.2.2.2 Survey, Research report, Journals and Newspapers as Sources of getting Innovative ideas.

(i) At national level ERS

Table No.3.2.3.1 showing mean percentage of national level educational resource system on survey, research reports, journals and newspapers as sources of getting innovative ideas.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total percentage
How often -							
1. -	does your institution take the help of survey in locating the needs of innovation?	10.00	50.00	40.00	00.00	00.00	100.00

2. - does your institution take the help of research reports for developing innovations?	30.00	30.00	40.00	00.00	00.00	100.00
3. - does your institution consider research journals for developing innovations?	40.00	40.00	20.00	00.00	00.00	100.00
4. - does your institution take the help of newspapers for developing innovations?	30.00	40.00	10.00	20.00	00.00	100.00
5. - does your ideas receive support in your institution for changing the way things are done in client system?	20.00	60.00	20.00	00.00	00.00	100.00
6. - does your institution receive adequate information about the innovations	10.00	70.00	20.00	00.00	00.00	100.00
7. - are discussions open in the meetings of your institution?	30.00	60.00	10.00	00.00	00.00	100.00

Table 3.2.3.1 shows the mean percentage of national level educational resource system on sources of getting innovative ideas. Most of ERS at national level mentioned that they took usually the help of survey method (60 per cent) and research reports (60 percent) for locating the needs of innovations. A few national level ERS mentioned that they took sometimes the help of survey method (40 percent) and research reports (40 percent). A large number of national level ERS responded that they took usually the help of research journals (80 percent) and newspapers (70 percent) in locating the new ideas for the development. A few ERS (20 percent) revealed that they took rarely the help of newspapers for

developing innovations. Most of the national level ERS (80 percent) indicated that their ideas usually received support for changing the way things are done in client system. They usually received adequate information about the innovations (80 percent) and usually the discussions were open in the meetings of their resource system (90 percent).

(ii) At state level ERS

Table No. 3.2-3.2 showing the mean percentages of state level educational resource system on survey, research reports, journals and newspapers as the sources of getting innovative ideas.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	- does your institution take the help of survey in locating the needs of innovations?	16.66	58.33	16.66	8.23	00.00	100.00
2.	- does your institution take the help of research reports for developing innovations?	33.33	50.00	8.33	8.33	00.00	100.00
3.	- does your institution consider research journals for developing innovations?	25.00	50.00	16.66	8.33	00.00	100.00
4.	- does your institution take the help of newspapers for developing innovations?	8.33	33.33	41.66	16.66	00.00	100.00
5.	- do your ideas receive support in your institution for changing the way things are done in client system?	16.66	33.33	33.33	16.66	00.00	100.00
6.	- does your institution receive adequate information about the innovations?	25.00	33.33	33.33	8.33	00.00	100.00

7. - are discussions open in the meetings of your institution.	33.33	58.33	8.33	00.00	00.00	100.00

Table 3.2.3.2 shows the mean percentage of state level educational resource system on sources of getting innovative ideas. A large number of state level ERS mentioned that they usually took the help of survey method (75 percent), research reports (83 percent), research journals (75 percent) and newspapers (41 percent) for locating the need of innovations and developing them. Most of the state level ERS indicated that they usually received support in their institution for changing the ways things were done in client system (50 percent). They usually received adequate information about the innovations (58 percent), and usually the discussions were open in the meetings (91 percent). A few state level ERS (33 per cent) mentioned that they sometimes received adequate information about the innovations (33 percent).

(iii) At regional level ERS

Table No. 3.2.3.3 showing the mean percentage of regional level educational resource system on survey, research reports, journals, newspapers as the sources of getting innovative ideas.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How-often -							
1. -	does your institution take the help of survey in locating the needs of innovations?	66.66	00.00	33.33	00.00	00.00	100.00

2. - does your institution take the help of research reports for developing innovations?	33.33	66.66	00.00	00.00	00.00	100.00
3. - does your institution consider research journals for developing innovations?	33.33	33.33	33.33	00.00	00.00	100.00
4. - does your institution take the help of newspapers for developing innovations,	33.33	33.33	33.33	00.00	00.00	100.00
5. - do your ideas receive support in your institution for changing the way things are done in client system?	66.66	33.33	00.00	00.00	00.00	100.00
6. - does your institution receive adequate information about the innovations?	33.33	66.66	00.00	00.00	00.00	100.00
7. - are discussions open in the meetings of your institution?	66.66	33.33	00.00	00.00	00.00	100.00

Table 3.2.3.3. shows the mean percentage of regional level educational resource system on sources of getting innovative ideas. Regional level ERS mentioned that they took usually the help of survey method (66 percent), research reports (100 percent) research journals (66 percent) and newspapers (66 percent) in locating the need for innovations and developing them. A large number of regional level ERS indicated that they usually received adequate infomation about innovations. Usually the discussions were open in the meetings of their resource system and almost all the regional level ERS mentioned they received

support in their resource systems for changing the way things are done in client system.

(iv) At local level ERS

Table No.3.2.3.4. showing the mean percentage of local level educational resource system on survey, research reports, journals and newspapers as the source of getting innovative ideas.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	- does your institution take the help of survey in locating the needs of innovations?	4.28	31.42	40.00	14.28	10.00	100.00
2.	- does your institution take the help of research reports for developing innovations?	14.28	41.42	30.00	8.57	5.71	100.00
3.	- does your institution consider research journals for developing innovations?	22.85	37.14	32.85	2.85	4.28	100.00
4.	- does your institution take the help of newspapers for developing innovations?	14.28	30.00	31.42	15.71	8.57	100.00
5.	- do your ideas receive support in your institution for changing the way things are done in client system?	11.42	38.57	27.14	14.28	8.57	100.00
6.	- does your institution receive adequate information about the innovations?	11.42	45.71	28.57	14.28	0.00	100.00

7. - are discussions open in the meetings of your institution?	37.14	40.00	18.57	2.85	1.42	100.00

Table 3.2.3.4 shows the mean percentage of local level educational resource system on sources of getting innovative ideas. Some of the local level ERS mentioned that they took usually the help of survey method (35 percent) research report (55 percent), research journals (60 percent) and newspapers (44 percent) for locating the needs of innovations and developing them. While a few local level ERS revealed that they took rarely the help of survey method (24 per cent), research reports (14 percent), research journals (7 percent) and newspapers (24 percent) for locating the needs of innovations and developing them. 57 percent of local level ERS revealed that they received adequate information about innovations. Usually the discussions were open in the meeting of their resource systems (77 percent) and their ideas received adequate support for changing the way things were done in client systems (50 percent). A few ERS (14 percent) mentioned that they received rarely adequate information about the innovations and their ideas received rarely support in their resource systems for changing the way things are done into client system.

Thus, it can be infered from the above findings that most of the national, state, regional and local levels educational resource systems either usually or sometimes make use of survey method, research reports, journals and newspapers for getting information about innovative ideas for the selection and development. A few local level educational

resource systems rarely take the help of survey method, research reports, research journals and newspapers, for locating the needs of innovations and developing them. Nearly all the national, state and regional levels ERS usually receive adequate information about the innovations. A few ERS at local level (14 percent) received rarely adequate information about the innovations. Discussions regarding the initiation and selection of innovations are usually open in the meetings of almost all the national (90 percent), state (91 percent), regional (100 percent) and local levels (77 percent) educational resource systems. Most of the ERS at national (90 percent), state (50 percent) regional (100 percent) and local (50 percent) levels usually receive support for changing the ways things are done in the client system.

3.2.2.3. Taking into Cognizance of the Suggestions made by Various Agencies for the Development of Innovations:

(i) At national level ERS

Table No. 3.2.4.1 showing the mean percentage of national level educational resource system on taking into cognizance of suggestions made by various agencies for the development of innovations

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total percentage
How often -							
1.	-does your institution take into cognizance the suggestions made by students for the development of innovations?	00.00	70.00	30.00	00.00	00.00	100.00
2.	-does your institution take into cognizance the suggestions made by university for the development of innovations?	10.00	60.00	30.00	00.00	00.00	100.00

3. -does your institution take into cognizance the suggestions made by Secondary Board of Education for the development of innovations?	10.00	70.00	20.00	00.00	00.00	100.00
4. -does your institution take into cognizance the suggestion made by state education department for the development of innovations?	10.00	70.00	20.00	00.00	00.00	100.00
5. -does your institution taken into cognizance the suggestions made by Union Ministry of Education for the development of innovations?	50.00	40.00	10.00	00.00	00.00	100.00
6. -does your institution take into cognizance the suggestions made by UNESCO for the development of innovations?	20.00	50.00	20.00	10.00	00.00	100.00
7. -does your institution take into cognizance the suggestions made by job providing organisations?	00.00	20.00	70.00	10.00	00.00	100.00
8. -does your institution take into cognizance the suggestions made by Bureau of Guidance and Councelling	20.00	60.00	20.00	00.00	00.00	100.00

Table 3.2.4.1 shows the mean percentage of national level educational resource system on taking into cognizance of the suggestions made by various agencies for the development of educational innovations. A large number of national level ERS mentioned that they took usually into cognizance of suggestions made by students (70 percent), university (70 percent), Secondary Board of Education (80 percent), State Education

Department (80 percent), Union Ministry of Education (90 percent) UNESCO (70 percent) and Bureau of Guidance and Councelling (80 percent) for the development of innovations. Most of the national level ERS (70 percent) indicated that they took sometimes into cognizance of the suggestions made by job providing organisations for the development of innovations.

(ii) At state level ERS

Table No.3.2.4.2 showing the mean percentage of state level educational resource system on taking into cognizance of the suggestions made by various agencies for the development of innovations.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How-often							
1. -	does your institution take into cognizance the suggestions made by students for the development of innovations?	25.00	41.66	00.00	25.00	8.33	100.00
2. -	does your institution take into cognizance the suggestions made by university for the development of innovations?	16.66	25.00	25.00	16.66	16.66	100.00
3. -	does your institution take into cognizance the suggestions made by Secondary Board of Education for the development of innovations?	16.66	66.66	00.00	8.33	8.33	100.00

4. - does your institution take into cognizance the suggestions made by State Education Department for the development of innovations?	75.00	25.00	00.00	00.00	00.00	100.00
5. - does your institution take into cognizance the suggestions made by Union Ministry of Education for the development of innovations?	41.66	41.66	16.66	00.00	00.00	100.00
6. - does your institution take into cognizance the suggestions made by UNESCO for the development of innovations?	41.66	33.33	25.00	00.00	00.00	100.00
7. - does your institution take into cognizance the suggestions made by job providing organisations?	00.00	25.00	33.33	25.00	16.66	100.00
8. - does your institution take into cognizance the suggestions made by Bureau of Guidance&Councelling?	16.66	25.00	33.33	16.66	8.33	100.00

Table 3.2.4.2 shows the mean percentage of state level educational resource system on taking into cognizance of the suggestions made by various agencies for the development of educational innovations. A large number of state level ERS mentioned that they took usually into cognizance of the suggestions made by students (66 percent) university (41 percent), Secondary Board of Education (85 percent), State Education Department (100 percent), Union Ministry of Education (83 percent), UNESCO (75 percent), job providing organisations (25 percent) and Bureau of Guidance and Coun-

selling (41 percent) for the development of educational innovations. A few state level ERS indicated that they took rarely into cognizance of the suggestions made by students (33 percent), university (33 percent), Secondary Board of Education (16 percent), job providing organisations (41 percent) and Bureau of Guidance and Counselling (25 percent) for the development of innovations.

(iii) At regional level ERS

Table No. 3.2.4.3 showing the mean percentage of regional level educational resource system on taking into cognizance of the suggestions made by various agencies for the development of innovations.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	- does your institution take into cognizance the suggestions made by students for the development of innovations	33.33	33.33	33.33	00.00	00.00	100.00
2.	- does your institution take into cognizance the suggestions made by university for the development of innovation	33.33	33.33	33.33	00.00	00.00	100.00
3.	- does your institution take into cognizance the suggestions made by Secondary Board of Education for the development of innovations?	00.00	66.66	33.33	00.00	00.00	100.00
4.	- does your institution take into cognizance the suggestion by State Education Department for the development of innovations?	00.00	66.66	33.33	00.00	00.00	100.00

5. -does your institution take into cognizance the suggestions made by Union Ministry of Education for the development of innovations?	100.00	00.00	00.00	00.00	00.00	100.00
6. -does your institution take into cognizance the suggestions made by UNESCO for the development of innovations?	33.33	33.33	00.00	33.33	00.00	100.00
7.- does your institution take into cognizance the suggestions made by job providing organisations?	00.00	66.66	33.33	00.00	00.00	100.00

Table 3.2.4.3 shows the mean percentage of regional level educational resource system on taking into cognizance of the suggestions made by various agencies for the development of educational innovations. A large number of regional level ERS mentioned that they took into cognizance of the suggestions made by students (66 percent), university (66 percent), Secondary Board of Education (66 percent), State Education Department (66 percent), Union Ministry of Education (100 percent), UNESCO (66 percent) job providing organisations (66 percent) and Bureau of Guidance and Councelling (66 percent) for the development of innovations. A few regional level ERS (33 percent) indicated that they took rarely into cognizance the suggestions made by Bureau of Guidance and Councelling and UNESCO for the development of innovations.

(iv) At local level ERS

Table No.3.2.4.4 showing the mean percentage of local level educational resource system on taking into cognizance of the suggestions made by various agencies for the development of innovation.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
1.	- does your institution take into cognizance the suggestions made by students for the development of innovations?	22.85	34.28	27.14	11.42	4.28	100.00
2.	- does your institution take into cognizance the suggestions made by university for the development of innovations?	30.00	40.00	20.00	5.71	4.28	100.00
3.	- does your institution take into cognizance the suggestions made by Secondary Board of Education for the development of innovations?	11.42	41.42	41.42	2.85	2.85	100.00
4.	- does your institution take into cognizance the suggestion made by State Education Department for the development of innovations?	24.28	38.57	31.42	4.28	1.42	100.00
5.	- does your institution taken into cognizance the suggestions made by Union Ministry of Education for the development of innovations?	20.00	40.00	30.00	7.14	2.85	100.00
6.	- does your institution take into cognizance the suggestions made by UNESCO for the development of innovations?	10.00	30.00	31.42	20.00	8.57	100.00

7. - does your institution take into cognizance the suggestions made by job providing organisations?	5.71	20.00	37.14	21.42	15.71	100.00
8. - does your institution take into cognizance the suggestions made by Bureau of Guidance and Councelling	2.85	21.42	42.85	17.14	15.71	100.00

Table 3.2.4.4 shows the mean percentage of local level educational resource system on taking into cognizance of the suggestions made by various agencies for the development of educational innovations. ERS at local level responded that they took usually into cognizance of the suggestions usually made by students (57 percent), University (70 percent), Secondary Board of Education (52 percent), State Education Department (62 percent), Union Ministry of Education (60 percent), UNESCO (40 percent), job providing organisations (25 percent) and Bureau of Guidance and Counselling (24 percent) for the development of innovations. A few local level ERS mentioned that they took the suggestions rarely into cognizance of made by the Bureau of Guidance and Councelling (32 percent), job providing organisations (37 percent) UNESCO (28 percent), students (15 percent), university and Union Ministry of Education (9 percent) for the development of innovations. Some of the local level ERS reported that they took into cognizance of the suggestions sometimes made by students (27 percent), University (20 percent), Secondary Board of Education (41 percent), State Education Department (31 percent), Union Ministry of Education (30 percent), UNESCO (31 percent), job providing organisations (37 percent) and Bureau

of Guidance and Counselling (42 percent) for the development of innovations.

There are various agencies and organisations which make some demands and suggestions to change the education system. These organisations and systems are directly or indirectly related to the education system. The important organisations and systems are namely, students, university, Secondary Board of Education, State Education Department, Union Ministry of Education, UNESCO, job providing organisations, Bureau of Guidance and Counselling etc. It can be observed from the above findings that a large number of national and regional levels educational resource systems usually take into account the suggestions made by students, university, Secondary Board of Education, State Education Department, Ministry of Education, UNESCO, Bureau of Guidance and Counselling and job providing organisations. A few ERS at the local and state levels consider rarely the suggestions made by these organisations.

3.2.3.0. SHAPING OF INNOVATION

It involves the following steps:

3.2.3.1 Administration of innovations and individual vs team working

3.2.3.2 Trial and modification and freedom and security to the subordinat

3.2.3.3 Characteristics of innovations

3.2.3.1 Administration of Innovations and Individual vs Team Working

(i) At national level ERS

Table No. 3.2.5.1 showing the mean percentage of national level educational resource system on administration of innovations and individual vs. team working

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total percentage
How often -							
1. -	does it happen in your institution that innovations tend to flow from the central administration to subordinates?	00.00	10.00	30.00	60.00	00.00	100.00
2. -	does it happen in your institution that head supports most of the innovations?	00.00	30.00	30.00	40.00	00.00	100.00
3. -	does it happen in your institution that the staff members get an opportunity to be involved in the development of innovations?	40.00	60.00	00.00	00.00	00.00	100.00
4. -	does it happen in your institution that the higher authorities ask their subordinates for developing innovations	00.00	40.00	50.00	10.00	00.00	100.00
5. -	is it emphasised in your institution that work should be accomplished by individuals and not by teams?	00.00	20.00	60.00	20.00	00.00	100.00
6. -	are in your institution opportunities provided to the staff members to work in a group for developing innovations?	00.00	90.00	10.00	00.00	00.00	100.00

Table 3.2.5.1 shows the mean percentage of national level educational resource system on administration of innovations and individual vs team work. National level ERS mentioned that in their resource system

innovations tended to flow rarely from central administration to subordinates (60 percent) and rarely the head supported most of the innovations (40 percent). Usually the staff members got an opportunity to be involved in the development of innovations in most of the national level ERS (100 percent). Almost all the national level ERS (90 percent) reported that opportunities were usually provided to the staff members to work in a group for developing innovations. More than 50 percent of national level ERS revealed that higher authorities used to ask sometimes their subordinates for developing innovations and work used to be accomplished sometimes by individuals and not by groups.

(ii) At state level ERS

Table No. 3.2.5.2 showing the mean percentage of state level educational resource system on administration of innovations and individual vs. team work.

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1. -	does it happen in your institution that innovations tend to flow from the central admn. to subordinates?	8.33	41.66	33.33	00.00	16.66	100.00
2. -	does it happen in your institution that head supports most of the innovations?	41.66	41.66	00.00	8.33	8.33	100.00
3. -	does it happen in your institution that the staff members get an opportunity to be involved in the development of innovations?	50.00	50.00	00.00	00.00	00.00	100.00

4. -does it happen in your institution that the higher authorities ask their subordinates for developing innovations?	25.00	41.66	25.00	8.33	00.00	100.00
5. -is it emphasised in your institution that work should be accomplished by individuals and not by teams?	00.00	8.33	41.66	33.33	16.66	100.00
6. -are in your institution opportunities provided to the staff members to work in a group for developing innovations?	33.33	58.33	8.33	00.00	00.00	100.00

Table 3.2.5.2 shows the mean percentage of state level educational resource system on administration of innovations and individual vs team work. State level ERS reported that in their resource systems innovations tended to flow usually from the central administration to subordinates (50 percent) and head used to support most of the innovations (83 percent). It was revealed that staff members were provided opportunity to be involved in the development of innovations (100 percent) and usually the higher authorities used to ask their subordinates for developing innovations (66 percent). State level ERS (91 percent) indicated that the staff members were usually provided opportunities to work in a group and 50 percent state level ERS emphasised that rarely in their resource systems work was accomplished by individuals. 16 percent ERS mentioned that in their resource systems innovations did not flow from the central administration to subordinates.

(iii) <u>At regional level ERS:</u>

<u>Table No. 3.2.5.3. showing the mean percentage of regional level educational resource system on the administration of innovations and individual vs team working</u>

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	-does it happen in your institution that innovations tend to flow from the central administration to subordinates?	00.00	33.33	33.33	33.33	00.00	100.00
2.	-does it happen in your institution that head supports most of the innovations?	00.00	100.00	00.00	00.00	00.00	100.00
3.	-does it happen in your institution that staff members get an opportunity to be involved in the development of innovations?	00.00	100.00	00.00	00.00	00.00	100.00
4.	-does it happen in your institution that the higher authorities ask their subordinates for developing innovations?	00.00	33.33	33.33	33.33	00.00	100.00
5.	-is it emphasised in your institution that work should be accomplished by individuals and not by teams?	00.00	00.00	33.33	66.66	00.00	100.00
6.	-are in your institution opportunities provided to the staff members to work in a group for developing innovations?	66.66	00.00	33.33	00.00	00.00	100.00

Table 3.2.5.3 shows the mean percentage of regional level educational resource system on administration of innovations and individual vs.

team work. In almost all the regional level ERS usually the head supported most of the innovations and the flow of innovations was not frequent from the central administration to the subordinates. It happened usually in regional level ERS (100 percent) that the staff members got an opportunity to be involved in the development of innovations and in 66 percent regional level ERS they were always given the opportunity to work in group for developing innovations. A few ERS reported that the higher authorities asked sometimes their subordinates for developing innovations and rarely emphasised that work should be accomplished by individuals and not teams.

(iv) At local level ERS

Table No. 3.2.5.4 showing the mean percentage of local level educational resource system on administration of innovations and individual vs. team working

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate percentage
How often -							
1.	-does it happen in your institution that innovations tend to flow from the central administration to subordinates?	1.42	31.42	37.14	17.14	12.85	100.00
2.	-does it happen in your institution that head supports most of the innovations?	20.00	44.28	21.42	8.57	5.71	100.00

3.- does it happen in your institution that the staff members get an opportunity to be involved in the development of innovations?	31.42	41.42	21.42	2.85	2.85	100.00
4.- does it happen in your institution that the higher authorities ask their subordinates for developing innovations?	5.71	22.85	41.42	21.42	8.57	100.00
5.- is it emphasised in your institution that work should be accomplished by individuals and not by teams?	1.42	18.57	18.57	35.71	25.71	100.00
6.- are in your institution opportunities provided to the staff members to work in a group for developing innovations?	30.00	31.42	21.42	14.28	2.85	100.00

Table 3.2.5.4 shows the mean percentage of local level educational resource system on the administration of innovations and individual vs. team work. ERS at local level reported that the innovations tended to flow usually from the central administration to subordinates (32 percent) and usually the head used to supported most of the innovations (64 percent). It was reported that the staff members used to get an opportunity to be involved in the development of innovations (72 percent) and rarely it was emphasised in these resource systems (61 percent) that work should be accomplished by individuals and not by teams. A few ERS (30 percent) revealed that rarely the higher authorities asked their subordinates for developing innovations, while nearly 41 percent responded that the

higher authorities sometimes asked their subordinates for developing innovations. It was indicated that opportunities were provided usually to the staff members to work in a group for developing innovations at 61 percent local level educational resource systems.

In any organisation the head plays an important role in the administration of innovations. The head of the resource system may support and dictate the process of developing innovations and the subordinates may be mere followers. Whether the subordinates and other staff members of the organisation are involved or not in the development of educational innovations has some relevance to the quality of the innovations. The higher authorities of ERS at national, state, regional and local levels usually ask their subordinates and other staff members to be involved in the development of innovations. But at a few ERS at local level the higher authorities rarely ask their subordinates and other staff members to be involved in the development of innovations. It only happens sometimes that the innovations tend to flow from central administration to subordinates and rarely the head supports most of the innovations at national level. The head of the local level ERS (64 percent) supports most of the innovations and most of these innovations tend to flow from central administration to subordinates. It can be concluded from the above findings that the head of the

ERS is an important person and plays an important role in the development of innovations. The shaping of an innovation depends to a very great extent upon the leadership of the educational resource system.

In most of the organisations innovations are developed by team of researchers or experts and not by individuals. They are provided opportunities to work in groups and their views are taken into consideration before taking a decision regarding the development of innovations. The adequate information is passed from one person to another who are associated in the development of innovations.

ERS at national (60 percent) and regional levels (33 percent) sometimes emphasise that work should be accomplished by individuals and not by teams. The ERS at state (50 percent) and local (71 percent) levels rarely emphasise that work should be accomplished by individuals and not by teams. Usually opportunities are provided to the staff members to work in a group for developing innovations in most of the ERS at national, state, regional and local levels. Everyone's view is usually taken into consideration before a decision regarding the development of innovations is taken. Persons associated in the development of innovations usually have adequate information in most of the ERS at national, state, regional and to some extent at local levels. It can be concluded that innovations are developed in majority of ERS by team of researchers and staff members, and subordinates are provided fairly good opportunities to participate in the development of innovations.

3.2.3.2 Trial and Modification and Freedom and Security to the Subordinates:

i) At national level ERS:

Table No. 3.2.6.1. showing the mean percentage of national level educational resource system on trial and modification and freedom and security to the subordinates.

S.No.	Statements	Always	Usually	Sometimes	Rarely	Almost never	Total percentage
How often -							
1.	-does your institution consider everyone's views before a decision regarding the development of an innovation is taken?	20.00	50.00	30.00	00.00	00.00	100.00
2.	-is the information passed from one person to another who are associated in the development of innovation?	10.00	60.00	30.00	00.00	00.00	100.00
3.	-does it happen in your institution that the innovations developed are tried on a small sample?	10.00	70.00	10.00	10.00	00.00	100.00
4.	-does your institution have provisions for the modification of the innovations according to the needs of the clients?	30.00	60.00	10.00	00.00	00.00	100.00
5.	-does your institution take into consideration the favourable reactions of the clients in shaping of the innovations?	30.00	60.00	10.00	00.00	00.00	100.00
6.	-does your institution take into consideration the unfavourable reactions of the clients in reshaping of the innovations?	50.00	30.00	10.00	10.00	00.00	100.00

7. -does your institution guarantee psychological security to the subordinates in shaping of innovations?	30.00	60.00	00.00	10.00	00.00	100.00
8. -does your institution guarantee psychological freedom to the subordinates in shaping of innovations?	30.00	50.00	20.00	00.00	00.00	100.00

Table 3.2.6.1. shows the mean percentages of national level educational resource system on trial and modification and freedom and security to the subordinates. Almost all the national level ERS (70 percent) reported that usually in their resource systems everyone's views were considered before a decision regarding development of innovations were taken and informations were usually passed from one person to another in the development of innovation. The national level ERS (80 percent) revealed that the innovations developed were usually tried on a small sample and usually they were having the provision for the modification of the innovations according to the needs of the clients. Most of the national level ERS mentioned that they considered the favourable (90 percent) and unfavourable (80 percent) reactions of the clients in shaping and reshaping of the innovations respectively. Almost all the national level ERS reported that they usually guaranteed psychological security (90 percent) and psychological freedom (80 percent) to their subordinates in the shaping of innovations.

7. -does your institution guarantee psychological security to the subordinates in shaping of innovations?	50.00	50.00	00.00	00.00	00.00	100.00
8. -does your institution guarantee psychological freedom to the subordinates inv shaping of innovations?	50.00	33.33	00.00	8.33	8.33	100.00

Table 3.2.6.2. shows the mean percentage of state level educational resource system on trial and modification and freedom and security to subordinates. A large number of state level ERS (90 percent) reported that they used to consider usually everyone'sviews before a decision regarding the development of innovation is taken and usually the information was passed from one person to another who were associated in the development of innovation. It was reported that usually innovations developed were tried on a small sample (66 percent) and used to have provisions for the modification of the innovations according to the needs of the clients (83 percent). Most of the state level ERS (91 percent) reported that they used to consider usually the favourable and unfavourable reactions of the clients in shaping and reshaping of the innovations. Almost all the state level ERS provided guarantee for psychological security and psychological freedom to their subordinates in shaping of innovations.

(iii) At regional level ERS

Table No. 3.2.6.3. Showing the mean percentage of regional level educational resource system on trial and modification of innovation and freedom and security to subordinates

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approx. percentage
How often -							
1.	-does your institution consider everyone's views before a decision regarding the development of an innovation is taken?	33.33	66.66	00.00	00.00	00.00	100.00
2.	-is the information passed from one person to another who are associated in the development of innovations?	66.66	33.33	00.00	00.00	00.00	100.00
3.	-does it happen in your institution that the innovations developed are tried on a small sample?	00.00	66.66	33.33	00.00	00.00	100.00
4.	-does your institution have provision for the modification of the innovations according to the needs of the clients?	33.33	33.33	33.33	00.00	00.00	100.00
5.	-does your institution take into consideration the favourable reactions of the clients in shaping of the innovations?	33.33	33.33	33.33	00.00	00.00	100.00
6.	-does your institution take into consideration the unfavourable reactions of the clients in reshaping of the innovations?	33.33	33.33	33.33	00.00	00.00	100.00

7. -does your institution guarantee psychological secutity to the subordinates in shaping of innovation?	33.33	66.66	00.00	00.00	00.00	100.00
8. -does your institution guarantee psychological fredom to the subordinates inwshaping of innovations?	00.00	100.00	00.00	00.00	00.00	100.00

Table 3.2.6.3. shows the mean percentage of regional level educational resource system on trial and modification and freedom and security to subordinates. Almost all the regional level ERS mentioned that usually in their resource systems everyone's views were considered before taking a decision regarding the development of innovations and the information was usually passed from one person to another who were associated in the development of innovations. Approximately 66 percent ERS indicated that they usually used to try out the developed innovations on a small sample and were having provisions for the modifications of the innovations according to the needs of the clients. Regional level ERS (66 percent) took into consideration usually the favourable and unfavourable reactions of the clients in the shaping and re-shaping of innovations. Almost all the ERS reported that they usually provided guarantee for psychological security and psychological freedom to the subordinates in shaping of innovations.

(iv) At local level ERS

Table No. 3.2.6.4. Showing the mean percentage of local level educational resource system on trial and Modification of innovation and Freedom and and security to subordinates

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approx. percentage
How often -							
1.	-does your institution consider everyone's views before a decision regarding the development of an innovation is taken?	31.42	35.71	20.00	8.57	4.28	100.00
2.	-is the information passed from one person to another who are associated in the development of innovations?	30.00	42.85	17.14	4.28	5.71	100.00
3.	-does it happen in your institution that the innovations developed are tried on a small sample?	11.42	41.42	31.42	8.57	7.14	100.00
4.	-does your institution have provisions for the modification of innovations according to the needs of the clients?	18.57	32.85	30.00	14.28	4.28	100.00
5.	-does your institutiontaken into consideration the favourable reactions of the clients in shaping of the innovations?	22.85	38.57	28.57	7.14	2.85	100.00
6.	-does your institution take into consideration the unfavourable reactions of the clients in re-shaping of the innovations?	15.71	44.28	27.14	7.14	5.71	100.00
7.	does your institution guarantee psychological security to the subordinates in shaping of innovations?	20.00	34.28	28.57	15.71	1.42	100.00
8.	does your institution guarantee psychological freedom to the subordinates in shaping of innovations?	25.71	44.28	20.00	8.57	1.42	100.00

Table 3.2.6.4. shows the mean percentage of local level educational resource system on trial and modification and freedom and security to subordinates. ERS at local level reported that they usually considered everyone's views before a decision was taken regarding the development of an innovation (67 percent) and usually the information was passed from one person to another who were associated in the development of innovations (72 percent). Local level ERS mentioned that they used to take into consideration usually the favourable (61 percent) and unfavourable (60 percent) reactions of the clients in shaping and re-shaping of innovations respectively. The innovations developed were usually tried on a small sample at (52 percent) local level ERS and usually provisions were provided for the modifications of the innovations according to the needs of the clients at 51 percent local level ERS. Some of the local ERS showed that they usually provided guarantee for psychological security (52 percent) and psychological freedom (70 percent) to the subordinates in shaping of innovations. A few ERS reported that they rarely considered everyone's views before taking a decision regarding the development of innovations (12 percent), rarely the information was passed from one person to another who were associated in the development of innovations (10 percent), hardly tried innovations on small samples (15 percent), and rarely had any provision for modification. A few ERS (17 percent) provided rarely any guarantee for psychological security to their subordinates.

The innovations at majority of ERS at national, state and regional levels are tested usually on a small sample and sometimes

modified according to the needs of the clients. A few local level ERS also tried the developed innovations usually on a small sample and made modifications in the innovations according to the needs of the clients. Some of the ERS at local level rarely tried the innovations on small sample and had no provision to modify the innovations according to the client's needs. It can be concluded from the above findings that majority of ERS at national, state and regional levels in India usually try the developed innovations on a small sample and have the provision for modifying the innovations according to the needs of the clients. Almost all the ERS at national, state and regional levels make modifications after considering the favourable and unfavourable reactions of the clients.

Staff members and subordinates should be provided some assurance regarding their participation. They should be free in expressing their views whether it is favourable or unfacourable. This freedom will certainly help to bring out concrete suggestions and observations about the innovations.

ERS at national, state, regional and local levels usually guarantee psychological security and freedom to their subordinates in shaping of innovations at their institutions. This guarantee of psychological security and freedom to subordinates is lacking in a few ERS at local level. It seems that ERS at local level do not pay much attention to this aspect while majority of ERS at national, state and regional levels consider it as an important aspect for the development of innovations.

McClelland (1952) in his study of 41 suburban members of the metropolitan school study council, found that a feeling of security helps the principal in accomplishing his aims. According to Kallen (1964), innovations are mostly resisted due to motives of self-interest and fear. Social psychologists have also recognised fear of anxiety as one of the intervening variables in the acceptance of change. Bohlem (1962) generalises that innovators and early adopters tend to be more secure as individuals than late adopters and laggards. He reports a high correlation between risk taking with relatively early adoption. Buch (1972) found a significant relationship between innovativeness and the feeling of security.

3.2.3.3. Characteristics of Innovations

(i) At national level ERS

Table No. 3.2.7.1. Showing the mean percentage of national level educational resource system on the characteristics of innovations

S.No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total percentage
How often -							
1.	-does your institution consider the adaptability of innovations by the clients in the existing situations?	40.00	40.00	20.00	00.00	00.00	100.00
2.	-does your institution consider the associability of innovations existing in the present education structure?	20.00	60.00	20.00	00.00	00.00	100.00
3.	-does your institution consider the complexity of innovations?	30.00	70.00	00.00	00.00	00.00	100.00

4. -does your institution consider the divisibility of innovations?	30.00	50.00	20.00	00.00	00.00	100.00
5. -does your institution consider the effectiveness of innovations?	40.00	60.00	00.00	00.00	00.00	100.00
6. -does your institution consider the flexibility of innovations?	20.00	80.00	00.00	00.00	00.00	100.00
7. -does your institution consider the structuralisation of innovations?	20.00	60.00	20.00	00.00	00.00	100.00
8. -does your institution consider academic effectiveness of innovations?	40.00	40.00	20.00	00.00	00.00	100.00
9. -does your institution consider the burdensomeness of innovations?	20.00	70.00	10.00	00.00	00.00	100.00
10. -does your institution consider the cost economy of innovations?	10.00	30.00	50.00	10.00	00.00	100.00
11. -does your institution consider the time economy factor while developing innovations?	20.00	50.00	30.00	00.00	00.00	100.00

Table 3.2.7.1. shows the mean percentage of national level educational resource system on the characteristics of innovations. Almost all the national level ERS indicated that they considered usually the adaptability, associability, complexity, divisibility, effectiveness, flexibility, structuralisation, academic effectiveness, burdensomeness and the time economy factor of innovations while developing them. It was found that the cost economy of the innovation was considered sometimes at 50 percent national level ERS.

(ii) At state level ERS

Table No. 3.2.7.2. Showing the mean percentage of state level educational resource systems on characteristics of innovations

S.No.	Statements	Almost always	Usually	Some-times	Rarely	Almost-never	Total approx percentage
How often -							
1.	-does your institution consider the adaptability of innovations by the clients in the existing situations?	50.00	41.66	8.33	00.00	00.00	100.00
2.	-does your institution consider the associability of innovations existing in the present education structure?	33.33	50.00	16.66	00.00	00.00	100.00
3.	-does your institution consider the complexity of innovations?	25.00	50.00	8.33	00.00	16.66	100.00
4.	-does your institution consider the divisibility of innovations?	25.00	58.33	16.66	00.00	00.00	100.00
5.	-does your institution consider the effectiveness of innovations?	50.00	41.66	8.33	00.00	00.00	100.00
6.	-does your institution consider the flexibility of innovations?	58.33	41.66	00.00	00.00	00.00	100.00
7.	-does your institution consider the structuralisation of innovations?	58.33	41.66	00.00	00.00	00.00	100.00
8.	-does your institution consider academic effectiveness of innovations?	41.66	58.33	00.00	00.00	00.00	100.00
9.	-does your institution consider the burdensomeness of innovations?	00.00	41.66	33.33	8.33	16.66	100.00
10.	-does your institution consider the cost economy of innovations?	33.33	41.66	8.33	16.66	00.00	100.00
11.	-does your institution consider the time economy factor while developing innovations?	50.00	41.66	8.33	00.00	00.00	100.00

Table 3.2.7.2. shows the mean percentage of state level educational resource system on characteristics of innovations. Majority of state level ERS revealed that they considered usually the adaptability, associability, complexity, divisibility, effectiveness, flexibility, structuralisation, academic effectiveness, burdensomeness, cost economy and time economy factor of innovations while developing them. A few state level ERS mentioned that they considered almost never the burdensomeness and complexity of innovations while developing them.

(iii) At regional level ERS

Table No. 3.2.7.3. Showing the mean percentage of regional level educational resource system on characteristics of innovations

Sl. No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approximate %
	How often -						
1.	-does your institution consider the adaptability of innovations by the clients in existing situations?	33.33	33.33	33.33	00.00	00.00	100.00
2.	-does your institution consider the associability of innovations existing in the present education structure?	33.33	33.33	33.33	00.00	00.00	100.00
3.	-does your institution consider the complexity of innovations?	33.33	33.33	00.00	33.33	00.00	100.00
4.	-does your institution consider the divisibility of innovations?	33.33	33.33	33.33	00.00	00.00.	100.00
5.	-does your institution consider the effectiveness of innovations?	33.33	33.33	33.33	00.00	00.00	100.00

6. -does your institution consider the flexibility of innovations?	00.00	66.66	33.33	00.00	00.00	100.00
7. -does your institution consider the structuralisation of innovations?	00.00	100.00	00.00.	00.00	00.00	100.00
8. -does your institution consider academic effectiveness of innovations?	00.00	100.00	00.00	00.00	00.00	100.00
9. -does your institution consider the burdensomeness of innovations?	00.00	33.33	00.00	33.33	33.33	100.00
10. -does your institution consider the cost economy of innovations?	33.33	00.00	66.66	00.00	00.00	100.00
11. -does your institution consider the time economy factor while developing innovations?	33.33	33.33	33.33	00.00	00.00	100.00

Table 3.2.7.3. shows the mean percentage of regional level educational resource system on characteristics of innovations. It was reported that a large number of regional level ERS considered usually the adaptability, associability, complexity, divisibility, effectiveness, flexibility, structuralisation, academic effectiveness, and time economy of the innovations while developing them. A few regional level ERS mentioned that they considered sometimes the time economy, cost economy, flexibility, effectiveness, divisibility, associability and adaptability of innovations while developing them.

(iv) At local level ERS

Table No. 3.2.7.8 Showing the mean percentage of local level educational resource systems on characteristics of innovations

Sl. No.	Statements	Almost always	Usually	Sometimes	Rarely	Almost never	Total approx. Percentage
	How often -						
1.	-does your institution consider the adaptability of innovations by the clients in the existing situation?	15.71	48.57	27.14	7.14	1.42	100.00
2.	-does your institution consider the associability of innovations existing in the present education structure?	15.71	48.57	28.57	4.28	2.85	100.00
3.	-does your institution consider the complexity of innovations?	25.71	41.42	24.28	7.14	1.42	100.00
4.	-does your institution consider the divisibility of innovations?	21.42	40.00	27.14	8.57	2.85	100.00
5.	-does your institution consider the effectiveness of innovations?	30.00	47.14	14.28	5.71	2.85	100.00
6.	-does your institution consider the flexibility of innovations?	28.57	50.00	11.42	8.57	1.42	100.00
7.	-does your institution consider the structuralisation of innovations?	20.00	41.42	24.28	10.00	4.28	100.00
8.	-does your institution consider academic effectiveness of innovations?	37.14	48.57	10.00	2.85	1.42	100.00

9. -does your institution consider the burdensomeness of innovations?	24.28	31.42	27.14	8.57	8.57	100.00
10. -does your institution consider the cost economy of innovations?	27.14	42.85	22.85	4.28	2.85	100.00
11. -does your institution consider the time economy factor while developing innovations?	22.85	48.57	18.57	7.14	2.85	100.00

Table 3.2.7.4. shows the mean percentage of local level educational resource system on characteristics of the innovations. A large number of local level ERS reported that they considered usually the adaptability (64 percent), associability (64 percent), complexity (67 percent), divisibility (61 percent), effectiveness (67 percent), flexibility (78 percent), structuralisation (61 percent), academic effectiveness (85 percent), burdensomeness (55 percent), cost economy (70 percent) and time economy factor (71 percent) of innovations while developing them. But some of the local level ERS reported that they considered sometimes the characteristics of the innovations while developing them.

The characteristics of innovations plays an important role in the adoption process. The important characteristics of innovations are their adaptability, associability, complexity, divisibility, effectiveness, flexibility, structuralisation, academic effectiveness, burdensomeness, time economy, cost economy, etc. The educational resource systems developing innovations should keep into consideration the above mentioned characteristics of innovations.

It can be infered from the above finding that a majority of ERS at national and state levels consider usually the adaptability and associability of innovations and nearly 66 percent of the regional and 64 percent of the local levels ERS consider usually the adaptability and associability of innovations. The complexity and divisibility of innovations are considered usually by the ERS at national, state and regional level ERS. Approximately 10 percent local and 16 percent state levels ERS consider rarely the complexity and divisibility of innovations while developing them. Effectiveness and flexibility of innovations are considered usually by almost all the ERS at national, state and regional levels while developing the innovations. Nearly 10 percent of the ERS at local level consider rarely the effectiveness and flexibility of innovations while developing them. But nearly 78 percent of the ERS at local level consider usually the effectiveness and flexibility of innovations. Structuralisation and academic effectiveness of the innovation are usually considered by almost all the ERS at national, state and regional levels while developing innovations. Approximately 61 percent of ERS at local level usually consider the structuralisation of innovation. Nearly 17 percent local and 66 percent of regional levels ERS consider rarely the burdensomeness of innovations while developing them. Almost all the ERS at national and state levels consider usually the burdensomeness of innovations. Approximately 50 percent

of the ERS at national and 66 percent of regional levels consider sometimes the cost economy of innovations. Nearly 40 percent of national, 75 percent of state, 33 percent of regional and 70 percent of local levels ERS consider usually the cost economy of innovations. Nearly 70 percent of national, 91 percent of state, 66 percent of regional and 71 percent of local levels ERS consider usually the time economy factor of the innovations while developing them. A few ERS at local level consider rarely the time economy factor of innovations while developing them. Nearly 30 percent of national, 8 percent of state, 33 percent of regional and 18 percent of local levels ERS consider sometimes the time economy factor of innovations while developing them.

Bhagia (1973) found no significant relationship between diffusion and the perception of adaptability, associability, burdensomeness, compatibility, cost economy, flexibility, independence, pleasure, and time economy of an innovation.

She found a positive and significant relationship between diffusion and the perception of complexity, communicability, divisibility, efficiency, facilitation, meaningfulness, practicability, prestige, relative advantage and structuralisation of an innovation. She suggested the following conditions for the greater diffusion of innovations: i) An innovation should appear to the principals as having intrinsic values of its own containing simplicity, communicability, divisibility, efficiency and structuralisation. ii) It should appear to the principals as being advantageous in terms of having academic effectiveness, prestige and relative advantage. iii) It should appear to the principal as situationally feasible in terms of facilitation, meaningfulness and practicality.

OBJECTIVE NO.III : TO STUDY THE PROCESS OF COMMUNICATION OF INNOVATIONS

3.3.0.C. PROCESS OF COMMUNICATION OF INNOVATIONS

Table No. 3.3.0.0 showing the mean and percentage score of PCI of the ERS

Sl. No.	ERS	One way communi-cation	One way feed-back communi-cation	Two way communi-cation
1.	Total ERS	32.29 (53.82)	32.57 (54.28)	31.77 (52.95)
2.	ERS at national level	38.60 (64.33)	38.80 (64.66)	42.80 (71.33)
3.	ERS at state level	35.16 (58.61)	35.91 (59.85)	36.58 (60.97)
4.	ERS at regional level	38.33 (63.88)	39.00 (65.00)	36.66 (61.10)
5.	ERS at local level	30.64 (51.07)	30.84 (51.40)	29.17 (48.62)

Where: ERS = Educational resource system
PCI = Process of communicating innovation
(Figures in brackets indicate mean percentage score)

Table 3.3.0.C shows the mean and percentage of educational resource systems of various levels on process of communication of innovations. All the three strategies for communication of innovations, viz., one way communication of innovations, one way feedback communication of innovations and two-way communication of innovations have almost the same mean percentage score for the total levels of educational resource systems in India. The mean percentage score of all the three strategies for communication of innovations is found to be rather

low. It concludes that educational resource systems of various levels have poor channels of communication of innovations. Educational resource systems at the national level are found to have a high mean percentage score for all the three strategies of communicating innovations. Educational resource systems at the regional level (Regional Colleges of Education) have the highest mean percentage score on one-way feedback communication and the lowest on two-way communication. The state level ERS (State Institutes of Education) has a high mean percentage score for two-way communication of innovations and low on oneway communication. The educational resource systems at national level have the maximum score on the two-way communication of innovation. Educational resource system at the local level (university departments of Education and Colleges of Education) have a low mean percentage score on two-way communication of innovations while a high mean percentage score on one-way feedback communication of innovations. The mean percentage score of the three strategies of communication of innovations for educational resource system at the local level is found to be rather low as compared to the educational resource systems at national, state and regional levels.

The main advantages of using one-way channel in the communication of innovations are: (i) the packageability of messages, and (ii) the disseminability of such communications to large audiences. One-way media certainly can make major

contributions in dissemination campaigns where several techniques are used in combination and in sequence to bring about the ultimate adoption of an innovation. One-way feedback can be very helpful if properly evaluated and kept in perspective. It is an essential mechanism for obtaining receiver information in large systems where two-way communication efforts are impractical and is especially appropriate when major status or power differences exist between the sender and the receiver of the feedback. Some form of two-way communication medium or channel which permits involved interaction between the resource and the user is necessary for the ultimate adoption of a change by an individual, a group, or a total system. A key to the success of any two-way design seems to be the provision for collaboration between the resource and user.

3.3.1.0. ONE WAY COMMUNICATION OF INNOVATION

(i) At national level ERS

Table No. 3.3.1.1: Showing the mean percentage of national level educational resource system on one-way communication of innovations

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
	To what extent -						
1.	-did your institution disseminate innovations to its clients through journals?	10.00	80.00	10.00	00.00	00.00	100.00
2.	-did your institution disseminate innovations to its clients through newspapers?	00.00	20.00	60.00	20.00	00.00	100.00
3.	-did your institution disseminate innovations to its clients through research reports?	30.00	40.00	30.00	00.00	00.00	100.00
4.	-did your institution disseminate innovations to its clients through books?	30.00	40.00	20.00	10.00	00.00	100.00
5.	-did your institution communicate innovations to its clients through lectures?	60.00	40.00	00.00	00.00	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
6.	-did your institution communicate innovations to its clients through symposia?	50.00	50.00	00.00	00.00	00.00	100.00
7.	-did your institution communicate innovations to its clients through television?	00.00	00.00	30.00	10.00	60.00	100.00
8.	-did your institution communicate innovations to its clients through radio?	00.00	10.00	20.00	40.00	30.00	100.00
9.	-did your institution disseminate innovations to its clients through taperecorders?	10.00	00.00	30.00	40.00	20.00	100.00
10.	-did your institution communicate innovations to its clients through mailing?	10.00	60.00	20.00	10.00	00.00	100.00
11.	-did your institution communicate innovations to its clients through demonstration?	30.00	60.00	10.00	00.00	00.00	100.00
12.	-did your institution disseminate innovations to its clients through oral presentation?	40.00	40.00	20.00	00.00	00.00	100.00

Table 3.3.1.1. shows the mean percentage of national level educational resource system on one way communication of innovations. National level

ERS reported that they disseminated to a considerable extent innovations to their clients through journals (90 percent), research reports (70 percent), books (70 percent), lectures (100 percent),symposia (100 percent), demonstration (90 percent), mailing (70 percent) and oral presentation (80 percent). National level ERS (60 percent) mentioned that they disseminated to some extent innovations to their clients through newspapers. 60 percent national ERS disseminated innovations not at all to their clients through television. It was found that most of the national level ERS could not make use of television, radio and taperecorder to disseminate innovations to their clients.

(ii) <u>at State level ERS</u>

<u>Table No. 3.3.1.2. Showing the mean percentage of state level educational resource system on one way communication of innovations</u>

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
	To what extent -						
1.	-did your institution disseminate innovations to its clients through journals?	25.00	41.66	25.00	8.33	00.00	100.00
2.	-did your institution disseminate innovations to its clients through newspapers?	8.33	8.33	16.66	25.00	41.66	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
3.	-did your institution disseminate innovations to its clients through research reports?	25.00	33.33	16.66	25.00	00.00	100.00
4.	-did your institution disseminate innovations to its clients through books?	16.66	41.66	25.00	16.66	00.00	100.00
5.	-did your institution communicate innovations to its clients through lectures?	41.66	50.00	00.00	8.33	00.00	100.00
6.	-did your institution communicate innovations to its clients through symposia?	41.66	33.33	8.33	8.33	8.33	100.00
7.	-did your institution communicate innovations to its clients through television?	00.00	00.00	8.33	8.33	83.33	100.00
8.	-did your institution communicate innovations to its clients through radio?	00.00	00.00	16.66	16.66	66.66	100.00
9.	-did your institution disseminate innovations to its clients through tape-recorders?	00.00	00.00	00.00	33.33	66.66	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	to some extent	To a little extent	Not at all	Total approximate percentage
10.	-did your institution communicate innovations to its clients through mailing?	00.00	25.00	41.66	16.66	16.66	100.00
11.	-did your institution communicate innovations to its clients through demonstration?	8.33	50.00	25.00	16.66	00.00	100.00
12.	-did your institution disseminate innovations to its clients through oral presentation?	25.00	50.00	25.00	00.00	00.00	100.00

Table 3.3.1.2. shows the mean percentage of state level educational resource system on one way communication of innovations. State level ERS mentioned that they disseminated innovations to a considerable extent to their clients through journals (66 percent), research reports (58 percent), books (58 percent), lectures (92 percent), symposia (75 percent), demonstration (58 percent) and oral presentation (75 percent). Most of the state level ERS mentioned that they did not communicate innovations to their clients through television (83 percent), radio (66 percent), tape recorder (66 percent), newspapers (41 percent) and mailing (16 percent). A few state level

ERS mentioned that they communicated innovations to a little extent to their clients through newspapers (25 percent), radio (16 percent) and tape recorder (33 percent). It can be concluded that state level educational resource systems communicate to a great extent innovations through journals, research reports, books, lectures, symposia, demonstration and oral presentation while hardly by radio, tape recorder, newspapers and television.

(iii) At regional level ERS

Table No. 3.3.1.3. Showing the mean percentage of regional level educational resource system on one way communication of innovations

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
	To what extent -						
1.	-did your institution disseminate innovations to its clients through journals?	33.33	33.33	33.33	00.00	00.00	100.00
2.	-did your institution disseminate innovations to its clients through newspapers?	33.33	00.00	00.00	66.66	00.00	100.00
3.	-did your institution disseminate innovations to its clients through research reports?	33.33	33.33	33.33	00.00	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
4.	-did your institution disseminate innovations to its clients through books?	33.33	00.00	00.00	66.66	00.00	100.00
5.	-did your institution communicate innovations to its clients through lectures?	33.33	33.33	33.33	00.00	00.00	100.00
6.	-did your institution communicate innovations to its clients through symposia?	33.33	33.33	33.33	00.00	00.00	100.00
7.	-did your institution communicate innovations to its clients through television?	00.00	00.00	00.00	33.33	66.66	100.00
8.	-did your institution communicate innovations to its clients through radio?	00.00	66.66	00.00	33.33	00.00	100.00
9.	-did your institution disseminate innovations to its clients through tape records?	00.00	33.33	00.00	00.00	66.66	100.00
10.	-did your institution communicate innovations to its clients through mailing?	00.00	33.33	66.66	00.00	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
11.	-did your institution communicate innovations to its clients through demonstration?	00.00	33.33	33.33	33.33	00.00	100.00
12.	-did your institution disseminate innovations to its clients through oral presentation?	00.00	66.66	00.00	33.33	00.00	100.00

Table 3.3.1.3. shows the mean percentage of regional level educational resource system on one way communication of innovations. Regional level ERS mentioned that they disseminated innovations to a considerable extent to their clients through journals, research reports, lectures, symposia, radio, and oral presentation. These ERS revealed that they disseminated to a little extent innovations to their clients through newspapers, books and mailing. Most of the ERS mentioned that they did not disseminate innovations to their clients through television and tape records. Innovations were also communicated to their clients by demonstration. It can be concluded that most of the regional level educational resource systems usually communicated innovations through journals, research reports, lectures, symposia, oral presentation and to some extent by radio. Television and tape records are rarely used to disseminate innovations from regional level educational resource systems. Newspaper was used to some extent for the dissemination of innovations.

(iv) At local level ERS

Table No.3.3.1.4. Showing the mean percentage of local level educational resource system on one way communication of innovations

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
	To what extent -						
1.	-did your institution disseminate innovations to its clients through journals?	10.00	10.00	41.42	22.85	15.71	100.00
2.	-did your institution disseminate innovations to its clients through newspapers?	2.85	10.00	12.85	37.14	37.14	100.00
3.	-did your institution disseminate innovations to its clients through research reports?	7.14	30.00	21.42	22.85	18.57	100.00
4.	-did your institution disseminate innovations to its clients through books?	18.57	14.28	18.57	20.00	28.57	100.00
5.	-did your institution communicate innovations to its clients through lectures?	24.28	41.42	22.85	10.00	1.42	100.00
6.	-did your institution communicate innovations to its clients through symposia?	15.71	31.42	35.71	10.00	7.14	100.00
7.	-did your institution communicate innovations to its clients through television?	00.00	00.00	2.85	2.85	94.28	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total Approximate percentage
8.	-did your institution communicate innovations to its clients through radio?	2.85	1.42	12.85	5.71	77.14	100.00
9.	-did your institution disseminate innovations to its clients through tape records?	2.85	5.71	12.85	22.85	55.71	100.00
10.	-did your institution communicate innovations to its clients through mailing?	8.57	20.00	27.14	22.85	21.42	100.00
11.	-did your institution communicate innovations to its clients through demonstration?	8.57	21.42	50.00	15.71	4.28	100.00
12.	-did your institution disseminate innovations to its clients through oral presentation?	10.00	37.14	31.42	17.14	4.28	100.00

Table 3.3.1.4. shows the mean percentage of local level educational resource system on one way communication of innovations. Local level ERS reported that they disseminated innovations to some extent to their clients through journals. They disseminated innovations to a considerable extent to their clients through lectures and symposia method. Most of the local level ERS indicated that they disseminated innovation to a little extent to their clients through newspapers,

research reports, books, and mailing. Majority of local level ERS mentioned that they did not make any use of television, radio and tape records to communicate innovations to their clients. These ERS reported that they communicated innovations to some extent to their clients through demonstration and oral presentation.

The written word has long been the prime vehicle for the mass dissemination of new knowledge. Journals, newspapers, research reports and books are found to be common written media for dissemination of innovations by educational resource systems at the national, regional and state levels. At the local level such dissemination seems to be taken recourse only to some extent. It may be possible because unlike at the national, state and regional levels these ERS cannot afford to have their own journals. ERS at local level have very little facilities and resources. More often these ERS have to depend on other journals for the dissemination of their innovations. Newspapers as the channel for communicating educational innovations to their clients do not play an effective role. Most of the ERS in India use newspapers to a little extent to disseminate their innovations to their clients. ERS at the national level use newspaper to some extent for the dissemination of innovations. It is sad to learn that newspapers which have a large section of people as readers in the society do not contribute much in the dissemination of innovations in

education. It can be due to the lack of importance given by newspapers to education. Only a few newspapers in India carry articles on education. Research reports and books are used to a considerable extent by ERS at national, state and regional levels for the dissemination of innovation to their clients. ERS at local level make use of research reports and books to some extent for the dissemination of innovations to their clients. ERS at national, state and regional levels have sufficient funds to disseminate innovations through research reports and booklets while the ERS at local level do not have sufficient facilities to disseminate innovations through research reports and books. Most of the time innovations developed at local level ERS remain unnoticed by the clients or receive poor communication.

Written media are rarely suitable to disseminate distribution of knowledge to a large number of people. Excessive reliance on the written word often constitutes a severe problem. It has been estimated that doctors would have to read 27 books a day to keep up on the new discoveries in medicine (Neal, 1962). Magazines, newspapers, even scientific journals, and other various indices are inadequate for the 'storage for the retrieval' of already existing information (Scott, 1959). Though written messages are widely disseminable among a chosen audience, their success in arousing interest or in precipitating adoption behaviour depends on the high

relevance and functionality of their information for the intended receiver. These crucial content factors influence not only the subsequent utilisation of the communication by the receiver, but also his very decision to make the efforts to read it (Back et.al.1957). Greenberg (1965) found that people highly interested in a particular topic sought information from newspaper as well as personal sources, while those who were less involved relied solely on social contacts for their knowledge.

Determinants of the success or effectiveness of the spoken word in the communication process are infinite. Lectures, symposia, demonstrations and oral presentation are a few channels of communication of innovations usually adopted by ERS to disseminate educational innovations to their clients. Lectures and symposia are the channels of communication of innovations adopted to a great extent by ERS at national, state, regional and local levels to disseminate the innovations to their clients. Demonstration is used to a great extent by the ERS at national and state levels to disseminate their innovations to their clients. ERS at regional and local levels used oral presentations and demonstration to some extent to disseminate the innovations to their clients. The ability of presentation to live audiences to maximise

change among receivers depend not only on the variables of message salience and receiver receptivity to the medium, but to the large extent on the interaction of the individual's personality of the speaker with the collective personality of his audience. The rapport a lecture may establish with his listeners is a crucial variable in the analysis of such communication.

Hovland's (1957) experiment gives helpful insight into how the structural variables of lecture or other communication can influence the acceptance of its message. Information which is presented first in a communication has disproportionate influence. The appropriateness of the choice of a lecture or of some other one-way presentation to a live audience will depend on the goal of the speaker and will be limited by the character of the knowledge he is presenting. However, if higher cognitive functions are involved then two-way interaction is needed (Bloom, 1953). Demonstrations can be very successful mechanisms for inculcating change in both the demonstrator and his audience. The demonstration seems to function in at least three important ways: (i) it stimulates interest and involvement in the audience; (ii) it provides an opportunity for pre-trial evaluation by observers; and (iii) it reinforces prior adoption for the demonstrator, himself. The 'travelling seminar', a demonstration technique developed by Richland (1965), is found to be most effective in familiarising educators with innovations and in motivating them to begin innovative projects.

The travelling seminar has been adopted by other educators for their own change projects (Kaser, 1966; Carr and Mayer, 1969). The use of direct mail to advertise or to inform people of innovations seems to have its greatest potential among specialised target audience.

With properly chosen receivers a mail campaign can be quite effective. Mailing is used by most of the ERS at national, state and regional levels to communicate innovations to their clients. A few ERS at local level communicate to some extent innovations to their clients through mailing. Majority of ERS in India do not communicate innovations to their clients through television. The most appropriate reason is non-availability of television for the purpose of communicating educational innovations to their clients by ERS. The effectiveness of television as a medium for communicating new ideas is controversial. But television has demonstrated that it can function efficiently as a labour serving device at the college level. It can enable faculty members to be flexible in their scheduling so that they may more conveniently handle the diverse demands of both on and off the campus responsibilities. It can also maximise the exposure of the renounced scholar and the superior teacher (Educom, 1967). Majority of ERS at national, state, regional and local levels do not communicate innovations to their clients through radio and tape records. The radio has functioned in the communication process mainly at awareness stage of knowledge diffusion. Radio is usually considered effective together with TV/or news-

papers. Recording transmitted over either of the broadcast media, have largely been ignored. Tape recordings have also been used successfully in a limited basis in the medical level to distribute abstracts of the literature (Neal, 1962). The primary research on the utilisation of recording in educational settings has been done with foreign language laboratories. This particular innovation has not met with exceptional success.

3.3.2.0. ONE WAY FEEDBACK COMMUNICATION OF INNOVATIONS

i) At national level ERS

le No.3.3.2.1. Showing the mean percentage of national level educational resource system on one way feedback communication process of innovations

Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
To what extent -						
-did your institution elicit feedback through survey method?	00.00	80.00	20.00	00.00	00.00	100.00
-did your institution elicit feedback through evaluation method?	30.00	30.00	30.00	10.00	00.00	100.00
-did your institution adopt the direct method of feedback for communicating innovation?	30.00	60.00	10.00	00.00	00.00	100.00
did your institution use public archives for knowing about the behaviour and attitude of clients?	00.00	20.00	30.00	50.00	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total Percentage
5.	-did your institution adopt the indirect method of feedback for communicating innovations?	10.00	10.00	50.00	30.00	00.00	100.00
6.	-did your institution use private records to have statistical knowledge about the clients' behaviour and attitude?	00.00	10.00	20.00	30.00	40.00	100.00
7.	-did your institution collect opinions to determine reactions of clients about innovations?	10.00	20.00	40.00	20.00	10.00	100.00
8.	-did your institution collect opinions to determine preferences of the clients about innovations?	00.00	30.00	50.00	20.00	00.00	100.00
9.	-did your institution take the help of observation technique to determine reactions of the clients about innovations?	20.00	20.00	50.00	10.00	00.00	100.00
10.	-did your institution exercise observation technique to determine preferences of the clients about innovations?	00.00	30.00	60.00	10.00	00.00	100.00
11.	-did your institution consider the reviews of innovations communicated to your institution?	20.00	20.00	30.00	30.00	00.00	100.00
12.	-did your institution consider the protest by the clients about the innovations?	30.00	20.00	40.00	10.00	00.00	100.00

Table 3.3.2.1. shows the mean percentage of national level educational resource system on one way feedback communication of innovations. 80 percent national level ERS reported that they elicited feedback to a considerable extent through survey method while approximately 60 percent elicited feedback to a considerable extent through evaluation method. National level ERS (90 percent) adopted to a considerable extent the direct method of feedback for communicating innovations while 20 per cent of national level ERS adopted to some extent indirect method of feedback for communicating innovations. The national level ERS revealed that they did not make much use of the public archives and private records to a great extent to have knowledge about the clients' behaviour and attitudes. Some of the national level ERS indicated that they collected to some extent opinions to determine reactions (40 percent) and preferences (50 percent) of the clients about innovations. The observation technique was employed to some extent by national level ERS to determine reactions (50 percent) and preferences (60 percent) of the clients about innovations. Reviews and protest were not employed to a great extent by most of the national level ERS.

(ii) At State level ERS:

Table No.3.3.2.2 showing mean percentage of state level educational resource systems on one way feedback communication of innovations:

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	-did your institution elicit feedback through survey method?	16.66	25.00	25.00	25.00	8.33	100.00
2.	-did your institution elicit feedback through evaluation method?	8.33	41.66	25.00	25.00	00.00	100.00
3.	-did your institution adopt the direct method of feedback for communicating innovations?	16.66	25.00	33.33	8.33	16.66	100.00
4.	-did your institution use public archives for knowing about the behaviour and attitude of clients?	8.33	00.00	25.00	25.00	41.66	100.00
5.	-did your institution adopt the indirect method of feedback for communicating innovations?	16.66	25.00	33.33	8.33	16.66	100.00
6.	-did your institution use private records to have statistical knowledge about the clients behaviour and attitude?	8.33	8.33	16.66	25.00	41.66	100.00
7.	-did your institution collect opinions to determine reactions of clients about innovations?	8.33	25.00	41.66	16.66	8.33	100.00
8.	-did your institution collect opinions to determine preferences of the clients about innovations?	8.33	25.00	33.33	16.66	16.66	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
9.	-did your institution take the help of observation technique to determine reactions of the clients about innovations?	16.66	25.00	50.00	8.33	00.00	100.00
10.	-did your institution exercise observation technique to determine preferences of the clients about innovations?	8.33	33.33	41.66	16.66	00.00	100.00
11.	-did your institution consider the reviews of innovation communicated to your innovations?	8.33	58.33	16.66	8.33	8.33	100.00
12.	-did your institution consider the protest by the clients about the innovations?	00.00	33.33	16.66	41.66	8.33	100.00

Table 3.2.2.2. shows the mean percentage of state level educational resource system on one way feedback of communication of innovations. State level ERS mentioned that they elicited feedback to a considerable extent through survey method (41 percent) and through evaluation method (50 percent). The state level ERS (41 percent) responded that they adopted to a considerable extent the direct and indirect methods of feedback for communicating innovations while nearly 25 percent mentioned that they adopted to a little extent direct and indirect

methods of feedback for communicating innovations. 66 percent of the state level ERS indicated that they did not make much use of public archieves and private records to have knowledge about the behaviour and attitudes of their clients. The state level ERS revealed that they collected to some extent opinions to determine reaction (41 percent) and preferences (33 percent) of the clients about innovations and they also exercised to some extent observation technique to determine the reactions (50 percent) and preferences (41 percent) of their clients. Nearly 66 percent ERS mentioned that they considered to a considerable extent the reviews of innovations communicated while nearly 41 percent responded that they considered to a little extent the protest by the clients about the innovations.

(iii) <u>At regional level ERS</u>:

Table No. 3.3.2.3 showing the mean percentage of regional level educational resource system on one way feedback communication of innovations.

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
To what extent -							
1.	- did your institution elicit feedback through survey method?	33.33	33.33	00.00	33.33	00.00	100.00
2.	- did your institution elicit feedback through evaluation method?	00.00	33.33	00.00	66.66	00.00	100.00
3.	- did your institution adopt the direct method of feedback for communicating innovations?	00.00	33.33	33.33	33.33	00.00	100.00
4.	- did your institution use public archieves for knowing about the behaviour & attitude of clients?	00.00	33.33	33.33	00.00	33.33	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
5.	-did your institution adopt the indirect method of feedback for communicating innovations?	00.00	33.33	33.33	33.33	00.00	100.00
6.	-did your institution use private records to have statistical knowledge about the clients' behaviour and attitude?	00.00	33.33	00.00	66.66	00.00	100.00
7.	-did your institution collect opinions to determine reactions of clients about innovations?	00.00	66.66	00.00	33.33	00.00	100.00
8.	-did your institution collect opinions to determine preferences of the clients about innovations?	00.00	33.33	33.33	33.33	00.00	100.00
9.	-did your institution take the help of observation technique to determine reactions of the clients about innovations?	00.00	33.33	66.66	00.00	00.00	100.00
10.	-did your institution exercise observation technique to determine preferences of the clients about innovations?	00.00	66.66	00.00	33.33	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
11.	-did your institution consider the reviews of innovations communicated to your institution?	00.00	66.66	33.33	00.00	00.00	100.00
12.	-did your institution consider the protest by the clients about the innovations?	00.00	66.66	33.33	00.00	00.00	100.00

Table 3.3.2.3. shows the mean percentage of regional level educational resource system on one way feedback of communication of innovations. Most of the regional level ERS mentioned that they elicited feedback to a considerable extent through survey method while to a little extent through evaluation method. The regional level ERS usually adopted to a some extent direct as well as indirect method of feedback for communicating innovations. Public archieves and private records were used to some extent by regional level ERS to know about the clients' behaviour and attitude. Most of the regional level ERS collected opinions to a considerable extent to determine reactions of the clients about innovations and exercised to some extent observation technique to determine preferences of the clients about innovations. Most of the regional level ERS reported that they considered to a considerable extent the reviews and protest by the clients about the innovations. Approximately 66 percent of regional level ERS took to some extent the help of observation technique to determine reactions of the clients about innovations.

(iv) At local level ERS:

Table 3.3.2.4. showing the mean percentage of local level ERS on one way feedback of communication of innovations

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
	To what extent -						
1.	-did your institution elicit feedback through survey method?	2.85	25.71	20.00	34.28	17.14	100.00
2.	-did your institution elicit feedback through evaluation method?	5.71	22.85	22.85	31.42	17.14	100.00
3.	-did your institution adopt the direct method of feedback for communicating innovations?	5.71	14.28	44.28	20.00	15.71	100.00
4.	-did your institution use public archieves for knowing about the behaviour and attitude of the clients?	2.85	4.28	17.14	24.28	51.42	100.00
5.	-did your institution adopt the indirect method of feedback for communicating innovations?	2.85	2.85	41.42	24.28	28.57	100.00
6.	-did your institution use private records to have statistical knowledge about the clients' behaviour and attitude?	2.85	2.85	24.28	24.28	45.71	100.00
7.	-did your institution collect opinions to determine reactions of clients about innovations?	8.57	17.14	31.42	27.14	15.71	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
8.	-did your institution collect opinions to determine preferences of the clients about innovations?	7.14	14.28	35.71	21.42	21.42	100.00
9.	-did your institution take the help of observation technique to determine reactions of the clients about innovations?	7.14	25.71	32.85	18.57	15.71	100.00
10.	-did your institution exercise observation technique to determine preferences of the clients about innovations?	5.71	20.00	32.85	21.42	20.00	100.00
11.	-did your institution consider the reviews of innovations communicated to your institution?	7.14	22.85	30.00	18.57	21.42	100.00
12.	-did your institution consider the protest by the clients about the innovation?	8.57	28.57	28.57	24.28	10.00	100.00

Table 3.3.2.4. shows the mean percentage of local level educational resource system on one way feedback communication of innovations. It was found that a large number of local level ERS adopted either to some extent or to a little extent the various mechanism of eliciting the feedback from the clients. A few local level ERS mentioned that they did not adopt at all any mechanism to elicit the feedback from their clients. It shows that most of the local level educational resource systems do

not employ to a great extent the various mechanisms for eliciting feedback.

The utilisation of feedback is an integral part of the knowledge utilisation process. The researcher, developer and practioner must 'hear' and respond to expressions of 'user need and user reaction' if effective utilisation of new knowledge is to take place. It is observed that majority of ERS at national, state and regional levels elicit feedback through survey method. Most of the ERS at national and state levels also elicit feedback through evaluation method while majority of ERS at local level adopt to a little extent evaluation method to elicit feedback. Only a few regional level ERS elicit feedback through evaluation method. In eliciting feedback the educational resource systems can control, through its sampling procedure, the representativeness of the population being heard, or it can select a relevant sub-population for survey. It has been shown that the person who submits feedback unrequested is highly motivated in holding his opinions on an issue, and maintains them consistently throughout the cognitive, affective, and behavioural levels of his personality (Krech, Crutchfield and Ballachey, 1962 Bettelheim and Janowitz, 1950).

It is observed that majority of ERS at national, state, regional and a few local levels adopt the direct and indirect methods of feedback procedures. It is true that the responses elicited through direct feedback may be biased in part by the user's reaction to the collector or to being in the position of typical consumer. However,

at the present time direct feedback is probably the simplest and most economic means of getting at certain kinds of information. Indirect techniques are necessary to measure certain categories of information. They are most appropriately utilised where tendencies towards socially acceptable responses are likely. Webb and his associates (1966) have suggested that attention be directed toward the development of appropriate combinations of both direct and indirect techniques. Direct feedback consists of the information received from a user who is aware of the 'what and why' of its collection. Indirect feedback consists of the information collected from a user without his knowledge or when the purpose of its collection is not specified to him.

The channels through which an educational resource system may receive feedback from its users are numerous. Some are more 'useful' than others, depending on the kind of user information to be retrieved and the purposes for which the feedback is needed. A few ERS at national and state levels use public archieves for knowing about the behaviour and attitudes of the clients. Some of the ERS at regional level use to a little extent public archieves and a majority at local level do not use public archieves. Winston's (1932) creative analysis of birth record data in veryfying the preference of upper class parents for male offspring is an example of eliciting feedback indirectly from the public archieves in order to obtain information about attitudes. The ERS in India do not make much use of private records to have statistical knowledge about the clients' behaviour and attitude. Private records have

been used to a very little extent to have statistical knowledge about the clients' behaviour and attitude. The research on advertising effects and consumer behaviour being done by private companies comprises a considerable proportion of the statistical knowledge about user's behaviour and attitudes. Private records usually provide more detailed information than public records and may consequently be more useful to researchers. Quite a good number of ERS at national, state and regional levels usually collect opinions to determine reactions and preferences of the clients about innovations. A few ERS at local level also collect sometimes reactions and preferences of the clients. The most carefully considered and scientifically controlled feedback is to be found in opinion polls and social research design. Some of the ERS at national, state, regional and local levels take the help of observation technique to determine preferences and reactions of the clients about the innovations while a few ERS at local level rarely take the help of observation technique to determine the reactions and preferences of the clients about the innovations. Valuable feedback which is not contaminated by "user awareness", can often be retrieved from the user through direct observation of his behaviour or indirectly by observing the results of his behaviour. Majority of ERS at national, state, regional and local levels consider to some extent the reviews of innovations and also consider to some extent the protest made by the clients about the innovations. According to Havelock (1973), protest is not an institutionalised mechanism of feedback information in a social system and its effectiveness as mechanism is limited by its blatancy.

3.3.3.0 TWO WAY COMMUNICATION OF INNOVATIONS

(i) At national level ERS

Table No.3.3.3.1. Showing the mean percentage of national level educational resource system on two way communication of innovations:

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
	To what extent -						
1.	-did your institution transmit innovations to its clients through dyadic exchange?	20.00	40.00	30.00	10.00	00.00	100.00
2.	-did your institution communicate innovations to its clients in small groups where free feedback is received and responded to?	30.00	60.00	10.00	00.00	00.00	100.00
3.	-did your institution communicate innovations to its clients in large groups where free feedback is received and responded to?	30.00	10.00	20.00	40.00	00.00	100.00
4.	-did your institution communicate innovations in a setting where immediate feedback is received and responded to?	30.00	60.00	00.00.	10.00	00.00	100.00
5.	-had your institution a consultant relationship with its clients of different status?	30.00	30.00	40.00	00.00	00.00	100.00
6.	-did it happen in your institution that each person accurately restated the ideas and feelings of the previous speaker before he presented his views in the communication of innovations?	10.00	50.00	40.00	00.00	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total percentage
7.	-did your institution exercise T-Group technique for communicating innovations?	20.00	20.00	30.00	30.00	00.00	100.00
8.	-did your institution exercise role playing technique for communicating innovations?	10.00	10.00	60.00	20.00	00.00	100.00
9.	-did your institution exercise action research technique for communicating innovations?	10.00	40.00	40.00	10.00	00.00	100.00
10.	-did your institution exercise 'grid plan' for communicating innovations?	10.00	40.00	30.00	20.00	00.00	100.00
11.	-did your institution take the help of inquiry team for communicating innovations?	30.00	10.00	30.00	30.00	00.00	100.00
12.	-did your institution arrange derivation conferences to communicate innovations?	10.00	30.00	40.00	10.00	10.00	100.00

Table 3.3.3.1. Shows the mean percentage of national level educational resource system on two way communication of innovations. National level ERS (60 percent) reported that they communicated innovations to a considerable extent to their clients through dyadic exchange. Most of the national level ERS communicated innovations to a considerable extent to their clients in small groups where free feedback was received and responded to (90 percent) and to a little

extent in large groups where free feedback was received and responded to (40 percent). Most of the national level ERS reported that they had consultant relationship to a considerable extent with their clients of different status. A few national level ERS exercised to a considerable extent T-Group technique, action research technique, grid plan, inquiry team and derivation conference to communicate innovations. Some of the ERS exercised to some extent T-Group technique (30 percent), role playing technique (60 percent), action research technique(40 percent), grid plan (30 percent), inquiry team (30 percent) and derivation conferences (40 percent) to communicate innovations.

(ii) At State level ERS

Table No.3.3.3.2. Showing the mean percentage of state level educational resource system on two way communication of innovations

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate %
1.	-did your institution transmit innovations to its clients through dyadic exchange?	16.66	16.66	41.66	8.33	16.66	100.00
2.	-did your institution communicate innovation to its clients in small groups where free feedback is received and responded to?	25.00	25.00	41.66	8.33	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate per centage
3.	-did your institution communicate innovation to its clients in large groups where free feedback is received and responded to?	8.33	25.00	33.33	33.33	00.00	100.00
4.	-did your institution communicate innovations in a setting where immediate feedback is received and responded to?	25.00	16.66	25.00	33.33	00.00	100.00
5.	-had your institution a consultant relationship with its clients of different status?	33.33	25.00	16.66	25.00	00.00	100.00
6.	-did it happen in your institution that each person accurately restated the ideas and feelings of the previous speaker before he presented his views in the communication of innovations?	8.33	25.00	33.33	25.00	8.33	100.00
7.	-did your institution exercise T-Group technique for communicating innovations?	8.33	16.66	41.66	00.00	33.33	100.00
8.	-did your institution exercise role playing technique for communicating innovations?	8.33	25.00	16.66	25.00	25.00	100.00
9.	-did your institution exercise action research technique for communicating innovations?	25.00	33.33	8.33	25.00	8.33	100.00

Sl. No.	Statements	To a very extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
10.	-did your institution exercise 'grid plan' for communicating innovations?	16.66	8.33	41.66	8.33	25.00	100.00
11.	-did your institution take the help of inquiry team for communicating innovations?	8.33	00.00	41.66	16.66	33.33	100.00
12.	-did your institution arrange derivation conference to communicate innovations?	16.66	25.00	16.66	8.33	33.33	100.00

xxx

Table 3.3.3.2. shows the mean percentage of state level educational resource system on two way communication of innovations. Nearly 41 percent state level ERS mentioned that they communicated innovations to some extent to their clients through dyadic exchange while 16 per cent responded that they did not communicate innovations through dyadic exchange. The state level ERS responded that they communicated innovations to some extent to their clients in small groups (41 percent) and large groups (33 percent) where free feedback was received and responded to. These ERS communicated innovations more frequently in small groups than in large groups. They had to a considerable extent a consultant relationship with their clients of different status (58 percent). Some of them exercised to some extent (41 percent) and some of them not at all (33 percent) T-Group technique for communicating innovations. Grid

plan (41 percent) and inquiry team (41 percent) were used to some extent to communicate innovations and these techniques were not at all used by 25 percent and 33 percent of the state level ERS respectively. Role playing technique and derivation conference were not frequently used for communicating innovations by the state level ERS.

(iii) At regional level ERS

TABLE NO.3.3.3.3. Showing the mean percentage of regional level educational resource system on two way communication of innovations

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
	To what extent -						
1.	-did your institution transmit innovations to its clients through dyadic exchange?	00.00	66.00	00.00	00.00	33.33	100.00
2.	-did your institution communicate innovations to its clients in small groups where free feedback is received and responded to?	00.00	99.99	00.00	00.00	00.00	100.00
3.	-did your institution communicate innovations to its clients in large groups where free feedback is received and responded to?	00.00	66.66	33.33	00.00	00.00	100.00
4.	-did your institution communicate innovations in a setting where immediate feedback is received and responded to?	00.00	66.66	33.33	00.00	00.00	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate percentage
5.	-had your institution a consultant relationship with its clients of different status?	00.00	99.99	00.00	00.00	00.00	100.00
6.	-did it happen in your institution that each person accurately restated the ideas and feelings of the previous speaker before he presented his views in the communication of innovations?	00.00	66.66	00.00	33.33	00.00	100.00
7.	-did your institution exercise T-Group technique for communicating innovations?	00.00	33.33	00.00	33.33	33.33	100.00
8.	-did your institution exercise role playing technique for communicating innovations?	00.00	33.33	00.00	33.33	33.33	100.00
9.	-did your institution exercise action research technique for communicating innovations?	00.00	33.33	33.33	33.33	00.00	100.00
10.	-did your institution exercise 'grid plan' for communicating innovations?	00.00	33.33	00.00	66.66	00.00	100.00
11.	-did your institution take the help of inquiry team for communicating innovations?	00.00	33.33	00.00	00.00	66.66	100.00
12.	-did your institution arrange derivation conferences to communicate innovations?	00.00	33.33	33.33	00.00	33.33	100.00

Table 3.3.3.3. Shows the mean percentage of regional level educational resource system on two way communication of innovations. Most of the regional level ERS responded that they communicated innovations to a considerable extent to their clients through dyadic exchange and communicated innovations in small and large groups where free feedback was received and responded to. Nearly 66 percent regional level ERS revealed that they communicated innovations to a considerable extent where immediate feedback was received and responded to. Regional level ERS were found to have a considerable extent the consultant relationship with their clients of different status. Most of the regional level ERS revealed that they exercised to a little extent T-Group technique, role playing technique, action research technique and grid plan for communicating innovations. A few regional level ERS did not exercise T-Group technique, role playing technique, inquiry team and derivation conferences to communicate innovations to their clients.

(iv) At local level ERS

Table No. 3.3.3.4. Showing the mean percentage of local level educational resource system on two way communication of innovations

Sl. No.	Statements	To a very great extent	To a considerable extent	To a little extent	To some extent	Not at all	Total percentage approx.
	To what extent -						
1.	-did your institution transmit innovations to its clients through dyadic exchange?	8.57	20.00	24.28	22.85	24.28	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To a little extent	To some extent	Not at all	Total approximate percentage
2.	-did your institution communicate innovations to its clients in small groups where free feedback is received and responded to?	7.14	25.71	32.85	22.85	11.42	100.00
3.	-did your institution communicate innovations to its clients in large groups where free feedback is received and responded to?	8.57	18.57	32.88	24.25	15.71	100.00
4.	-did your institution communicate innovations in a setting where immediate feedback is received and responded to?	8.57	18.57	25.71	31.42	15.71	100.00
5.	-had your institution a consultant relationship with its clients of different status?	10.00	18.57	24.28	34.28	12.85	100.00
6.	-did it happen in your institution that each person accurately restated the ideas and feelings of the previous speaker before he presented his views in the communication of innovations?	4.28	22.85	22.85	28.57	21.42	100.00
7.	-did your institution exercise T-Group technique for communicating innovations?	7.14	7.14	20.00	22.85	42.85	100.00

Sl. No.	Statements	To a very great extent	To a considerable extent	To some extent	To a little extent	Not at all	Total approximate %
8.	-did your institution exercise role playing technique for communicating innovations?	1.42	11.42	20.00	17.14	50.00	100.00
9.	-did your institution exercise action research technique for communicating innovations?	7.14	17.14	28.57	24.28	22.85	100.00
10.	-did your institution exercise 'grid plan' for communicating innovations?	7.14	7.14	22.85	22.85	40.00	100.00
11.	-did your institution take the help of inquiry team for communicating innovations?	4.28	5.71	11.42	32.85	45.71	100.00
12.	-did your institution arrange derivation conferences to communicate innovations?	5.71	10.00	21.42	22.85	40.00	100.00

Table 3.3.3.4. Shows the mean percentage of local level educational resource system on two way of communication of innovations. From the above table it can be concluded that a large number of local level ERS reported that they communicated innovations either to some extent or to a little extent to their clients; (i) through dyadic exchange; (ii) in small and large groups where free feedback was received and responded; (iii) had a consultant relationship

with their clients of different status. Most of them reported that they exercised either to some extent or to a little extent T-Group technique, action research technique, grid plan, inquiry team and derivation conferences for communicating innovations to their clients. A few local level ERS reported that they employed not at all T-Group technique, role playing technique, action research, grid plan, inquiry team and derivation conferences for communicating innovations to their clients.

Majority of ERS at national, state and regional levels usually communicate innovations to their clients through dyadic exchange. A high percentage of ERS at national, state and regional levels have a fairly good degree of consultant relationship with their clients of different status. A few ERS at local level either have very little or no consultant relationship with their clients of different status. Dyadic exchange has the potential to support the deepest kinds of change in individuals. For example, psychologists rank 'personal discussions' with colleagues as more effective means of communicating than two-way written correspondence with these people (American Psychological Association, 1964). The consultant relationship also has the advantage of users' 'openness', or readiness for change. The user decides to seek consultant help only after he has a chance to do some preliminary exploration of the topic on his own. This was discovered by Wilkening (1956) when he studied agricultural extension agents. The country agent was found to be ineffective for introducing innovations to farmers.

90 per cent of national, 50 percent of state, 100 percent of regional and 33 percent of local levels of ERS communicate

innovations to a great extent to their clients in small groups where free feedback is received and responded. A few ERS at national and state levels exercise to a considerable extent T-Group technique to communicate innovations. Approximately 30 percent of the ERS at national and state (33 percent) levels hardly exercise T-Group technique to communicate innovations. Nearly 66 percent of The ERS at regional and local (65 percent) levels hardly make any use of T-Group technique to communicate innovations. The ERS at national level (60 percent) exercise to some extent role playing technique for communicating innovations. Nearly 66 percent of regional, 50 percent of state and 67 per cent of local levels ERS rarely make use of role playing technique for communicating innovations. It is advantageous to communicate certain kinds of innovative messages within a small group. Lewin and his students (1947) studied the changing food habits during World War II. Housewives were urged to serve their families the low-cost and nutritional, but less appealing intestinal meats. Those who received this communication in a small group discussion showed a greater tendency to comply than those who heard it at lecture. A few ERS at national, (40 percent) state (33 percent) and regional (66 percent) levels usually communicate innovations to their clients in large group where free feedback is responded and received. Nearly 40 percent of the ERS at local level rarely communicate innovations to their clients in large groups. Approximately

all the ERS at national level exercise to some extent action research technique, take the help of inquiry team, exercise 'grid plan' and arrange derivation conferences for communicating innovations to their clients. Nearly 33 percent of the ERS at state level rarely exercise action research technique and inquiry team technique for communicating innovations to their clients. The ERS at state (41 percent) exercise to some extent grid plan technique and arrange derivation conferences to communicate innovations to their clients. The regional level ERS (33 percent) usually take the help of inquiry team and exercise grid plan for communicating innovations to their clients. The ERS at local level hardly take the help of inquiry team, (79 percent), grid plan technique (62 percent) and derivation conference technique (62 percent) for communicating innovations to their clients. A few ERS at local level exercise action research technique for communicating innovations. ERS at national (90 percent), state (41 percent), regional (66 percent) and local (27 percent) levels usually communicate innovations in a setting where immediate feedback is received and responded.

If large groups of people are to interact cooperatively in a change effort, every one of them must understand, must feel involved in, and must be committed to that effort. Two way involvement in a large group does not imply that a single large group can have effective two way communication operating in a simultaneous satisfaction and the inclusion of all members. Those

which have been most successful in achieving change within such groups (e.g., companies, organisations or systems) can be very generally clustered under the category of temporary systems. A variety of two-way designs for interaction have been used with large groups of various sizes. According to Miles (1964), the temporary systems are recognised from their inception as destined for extinction. The kinds of temporary systems most commonly associated with innovations are the conference (or similarly designed meeting), the ad hoc 'task force' or team, the research and/or action project, the consulting relationship and the academic course. (Miles, pp. 439-440). The inquiry team collaborates on defining goals, on all phases of the research, and on change strategies (Thelen, 1967). The Grid Programme for organisational development promoted by Blake and Mouton (1968) attempts to build a capacity for self renewal into the system. This type of temporary system organisation emphasises education (or knowledge input) as the key to achieving and maintaining change in an organisation. Its techniques are designed to improve both the communication and the planning aspects of the organisation's operation. The derivation conference is a temporary system which is systematically designed to include representatives from research who were as resource persons and from various levels of practice, who are the potential 'client' persons (July, 1966).

SECTION II

OBJECTIVE IV

3.4.0.0. TO STUDY THE RELATIONSHIP BETWEEN THE CHARACTERISTICS OF EDUCATIONAL RESOURCE SYSTEMS AND THE LEVEL OF ADOPTION OF INNOVATIONS

Table No. 3.4.0.0. Showing Coefficient of correlation between the characteristics of the educational resource systems and and the level of adoption of innovations.

Sl. No.	Educational resource system	Coefficient of correlation between CERS and level of adoption of innovations
1	Total ERS	0.5610 (S = 0.001)
2	Local level ERS	0.5847 (S = 0.001)

Where : ERS = Educational resource system CERS: Characteristics of educational resource system
S = level of significance

Table 3.4.0.0 shows the computation of coefficients of correlation between the characteristics of educational resource systems and the level of adoption of innovations. The coefficients of correlation of 0.5610 and 0.5847 for the total and local levels ERS respectively aresignificant at0.01 level which shows a positive relationship between the characteristics of educational resource system and the level of adoption of innovations. It was concluded in the earlier chapter that characteristics of educational resource system are related to the level of adoption of innovations. These observations lead to the rejection of the null hypotehsis, framed in

Chapter II, that there is no relationship between the characteristics of the educational resource system and the level of adoption of innovations. Hence it can be concluded that the higher the characteristics of the educational resource systems the greater would be the level of adoption of innovations.

Table No.3.4.1.0. Showing coefficient of correlation between the level of adoption of innovations and the characteristics, namely, linkage, structure, openness, capacity, reward, proximity and synergy for total educational resource systems:

Sl. No.	ERS	Linkage	Structure	Openness	Capacity	Reward	Proximity	Synergy
1.	Total ERS	0.5407 (S=0.001)	0.5026 (S=0.001)	0.4434 (S=0.001)	0.4805 (S=0.001)	0.3705 (S=0.001)	0.4726 (S=0.001)	0.4624 (S=0.001)

Where ERS = Educational resource system
S = Level of significance

Table 3.4.1.0. Shows the computation of coefficients of correlation between the level of adoption of innovations and the characteristics of the educational resource system, namely, linkage, structure, openness, capacity, reward proximity and synergy. The coefficients of correlation between level of adoption and the characteristics of the educational resource system namely, linkage, structure, openness, capacity, reward, proximity and synergy for the total educational resource systems are significant at.001 level which shows a positive relationship between the level of adoption of innovation and the characteristics of the resource systems, namely, linkage, structure, openness, capacity, reward, proximity and synergy. This

significant relationship may be due to the fact that the characteristics, namely, linkage, structure, openness, capacity, reward, proximity and synergy are usually considered as important factors for effective functioning of the educational resource systems. Hence the characteristics of the educational resource systems appear as an important factor for the adoption of an innovations.

OBJECTIVE V

3.5.0.0. TO STUDY THE RELATIONSHIP BETWEEN THE PROCESS OF DEVELOPING INNOVATION AND LEVEL OF ADOPTION OF INNOVATIONS

Table No. 3.5.0.0. Showing coefficient of correlation between the process of developing innovations and the level of adoption of innovations.

Sl. No.	Educational resource systems	Coefficient of correlation between PDI and level of adoption of innovation
1.	Total ERS	0.5358 (S=0.001)
2.	Local level ERS	0.5712 (S=0.001)

Where ERS = Educational resource system
PDI = Process of developing innovation
S = Level of significance

Table 3.5.0.0. shows the computation of coefficients of correlation between the process of developing innovations and the level of adoption of innovations. The coefficients of correlation of

0.5358 and 0.5712 for total and local ERS respectively are significant at .01 level which shows a positive relationship between the process of developing innovation and the level of adoption of innovation. In Chapter I it was found that the process of developing innovation has some impact on the adoption process. Hence these observations lead to the rejection of the null hypothesis, framed in chapter II, that there is no relationship between the process of developing innovation and the level of adoption of innovation. It can be concluded that better the process of development of innovations higher will be the level of adoption of innovations.

Table No.3.5.1.0. Showing coefficient of correlation between the level of adoption of innovations and the stages of developing innovations namely, awareness of innovations, sources of getting information about innovations and shaping of innovations for total educational resource systems.

Sl. No.	ERS	Awareness of innovation	Sources of getting information about innovation	Shaping of innovation
1	Total ERS	0.4824 (S = 0.001)	0.5128 (S = 0.001)	0.4720 (S=0.001)

Where ERS = Educational resource system
S = Level of significance

Table 3.5.1.0. shows the computation of the coefficients of correlation between the level of adoption of innovations and the three important stages of process of developing innovations, namely, awareness of innovations, sources of getting information about innovations and

shaping of innovations for the total educational resource systems. The coefficients of correlation obtained above are significant at the .001 level which shows a positive relationship between level of adoption of innovations and the stages of process of developing innovations, namely, awareness of innovations, sources of getting information about innovations and the shaping of innovations. It may be due to the fact that these stages of process of developing innovations are considered to be important factors for the development of innovations.

3.6.0.0. TO STUDY THE RELATIONSHIP BETWEEN THE PROCESS OF COMMUNICATION OF INNOVATION AND LEVEL OF ADOPTION OF INNOVATIONS

Table No.3.6.0.0. Showing coefficient of correlation between the process of communicating innovations and the level of adoption of innovations

Sl. No.	Educational resource system	Coefficient of correlation between PCI and level of adoption of innovation
1.	Total ERS	0.5807 (S = 0.001)
2.	Local level ERS	0.5775 (S = 0.001)

Where ERS = Educational resource system
PCI = Process of communicating innovation
S = Level of significance

Table 3.6.0.0 shows the computation of coefficients of correlation between the process of communicating innovations and the level of adoption of innovations. The coefficients of correlation of 0.5807 and 0.5775 for total and local level ERS respectively are significant at .001 level which shows positive relationship between the process of communicating innovations and the level of adoption of innovations. In the earlier chapter I it was concluded that the process of communicating innovation has a strong impact on the level of adoption of innovation. Hence these observations lead to the rejection of the null hypothesis framed, in the Chapter II, that there is no relationship between the process of communicating innovations and the level of adoption of innovations. It is concluded that greater the communicability of innovations from the educational resource system, the higher its level of adoption.

Table No. 3.6.1.0. Showing coefficient of correlation between level of adoption of innovations and the ways of communication, namely, one way, one way feedback and the twoway communication of innovations for the total educational resource systems.

Sl. No.	E R S	One way communication	One way feedback communication	Two way communication
1	Total ERS	0.4706 (S = 0.001)	0.5529 (S =0.001)	0.5586 (S = 0.001)

Where ERS = Educational resource system
S = Level of significance

Table 3.6.1.0. shows the computation of coefficients of correlation between the level of adoption of innovations and one way communication, one way feedback communication and the two way communication of innovations. The coefficients of correlation are found to be significant at .01 level which shows a positive relationship between the level of adoption of innovations and one way communication, one way feedback and two way communication of innovations. These findings again support the findings of table 3.6.0.0. and reject the null hypothesis III framed in Chapter II, that there is no relationship between the process of communicating innovation and the level of adoption of innovation. It can be concluded that greater the channels of one way communication, one way feedback communication and two way communication of innovations the greater will be the level of adoption of innovations. Havelock (1973) concludes that one way media certainly can make important contributions in dissemination campaigns where several techniques are used in combination and in sequence to bring about the ultimate adoption of an innovation. The utilisation of feedback is an important part of the knowledge utilisation process. The researcher, developer, and practitioner must hear and respond to the expressions of user need and user reaction of effective utilisation of new knowledge. He further says that some form of two-way communication medium or channel which permits involved interaction between the resource and the user is necessary for the ultimate adoption of a change by individual, a group, or a total system.

Summary of the Chapter

Chapter III deals with the results, interpretations and discussion. The data have been analysed and the results are described in two sections. Section I deals with the descriptive statistical analysis for the three variables, namely, characteristics of the resource systems, process of developing innovations, and the process of communicating innovations. Section II is concerned with the objectives Nos. 4, 5 and 6 which attempt to find out the relationship between the level of adoption of innovations and the characteristics of educational resource system, process of developing innovations and the process of communicating innovations. The data have been analysed by using mean, percentage and coefficient of correlation.

The next and the final chapter is devoted to the conclusions derived from the findings of chapter III and to the implications for all those concerned with the development of communication of innovations in this country. The next chapter also deals with suggestions made by the investigator.

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