Wastage in Elementary Education: A Comparative Study of Assam and Arunachal Pradesh

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ABSTRACT *Recent studies have been conducted in India and abroad on wastage and stagnation in Elementary Education Sadar & Fulzele (2008), Blum & Diwan (2007), Mehta (2005), Gyneswar (2000), Acharya (1996), Das (1969), Jesson & Sime (1990), Thomas & Motimone (1990), yet no studies have been specifically reported on a comparative analysis of Assam and Arunachal Pradesh where the problem of wastage in Assam and Arunachal Pradesh is seen as a significant factor in determining the quality of elementary education. The paper focuses on the rates of wastage in elementary school level in Assam and Arunachal Pradesh keeping in view the following objectives.*
1.   To investigate the wastage at the elementary school level in Assam and Arunachal Pradesh.
The above objective has also considered in the light of:
i)   gender (male & female)
ii)   locality (rural & urban)
2.   To study the district-wise wastage of learners at the elementary school stage of Assam and Arunachal Pradesh.
The study uses the descriptive-cum-normative survey method. The data includes using 21 schools from PapumPare and Lower Subansiri districts of Arunachal Pradesh and 20 schools from that of Dhemaji and Kokrajhar districts of Assam. The data was analysed by using the t-test method. The findings of the study indicate that the wastage among the elementary school stage learners in Arunachal Pradesh is lesser than that of Assam while comparing the sex and settlement wise variables. Relevant theoretical, empirical, and pedagogical implications for elementary education are also discussed.

Introduction:

Education is a principal instrument in awakening the child to cultural values, in preparing him for later professional training and in helping him to adjust normally to his environment. Education is the basic requirement of every individual. It leads to a balanced and all-round development. Education not only equips the individuals with skills of reading and writing, out also inculcates in them the values of humanism, democracy and national integration. To achieve the objectives of building a democratic and social order based on equality and social justice, our Constitution (article 45, 1950) requires the state to provide free education with provisions of free books, uniform and mid-day meals to all the children in the age group of 6-14 years. But, in spite of all these efforts, the school dropouts remain a problem. It was the Hartog Committee, which first identified the widespread prevalence of wastage and stagnation in the system of elementary education during 1929 (Documents of Primary Education in India, 1992). The Committee defined 'Wastage' as 'the premature withdrawal of children from school at any stage before the completion of the primary course'. The formal system of education is limited in its form and pattern to a time scheduled, hierarchically structured, chronologically graded system with a single point entry, sequential promotions, book centred and rigid achievement standards has neither been able to provide education for all nor hold all the students who entered the system till they mastered the skills of literacy. The high rate of drop out has been the main stumbling block all along. The UNICEF Report (1990) on the state of the world children indicates that, of the 100 million children who will begin their school careers in the developing world in 1990, over 40 million will dropout before completing primary education. The Report says, "Most of these children will be unable to fully participate in, or benefit form, the great changes which will surely surround their lives as the 21st century begins".

In India, the dropout rate in the Elementary Education during 1990-91 was found to be 44.3 percent, while it was found to be 36.3 percent during 1993-94 (Tilak, 1995). According to the NSSO (1991), as many as 73 million children (in the age group of 6-14) were not currently enrolled in schools. Further, child labour has been identified as one of the important factor associated with the unaccomplishment of Universal Elementary Education.

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(2000), Acharya (1996), Das (1969), Jesson & Sime (1990), Thomas & Motimone (1990), The paper focuses on the rates of wastage in elementary school level in Assam and Arunachal Pradesh keeping in view the following objectives.

1. To investigate the wastage at the elementary school level in Assam and Arunachal Pradesh.
The above objective has also considered in the light of:

iii) gender (male & female)
iv) locality (rural & urban)

2. To study the district-wise wastage of learners at the elementary school stage of Assam and Arunachal Pradesh.
In view of the above objectives of the study the researcher formulated the following hypotheses:

1. There is significant difference in wastage among the learners at the elementary school level in Assam and Arunachal Pradesh.
The above hypothesis has also considered in the light of:

v) gender(male & female)
vi) locality (rural & urban)

2. There is significant difference in wastage of learners at the elementary school stage in the districts of Assam and Arunachal Pradesh.
Methodology: The universe of the study was 21 schools from PapumPare and Lower Subansiri districts of Arunachal Pradesh and 20 schools from that of Kokrajhar and Dhemaji districts of Assam by using random sampling technique.

In the study, descriptive-cum-normative survey method was adopted for collecting pertinent data for the purpose of the study.

Statistical technique used: The data were analysed and interpreted by using statistical techniques Mean, Standard Deviation and t-test-step wise. For calculating, t-value, the following statistical technique is used:

$$t = \frac{M_1 - M_2}{\sqrt{\frac{S_1^2\,(N_1 - 1) + S_2^2\,(N_2 - 1)}{N_1 + N_2 - 2}\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

Tool used: The selection of suitable tools for a particular study depends upon the objectives of the study as per the nature and objectives of the present study; the researcher developed and used tool:

(i)   School Information Schedule (SIS)

Delimitations of the study: The study is delimited to –
(i)   Class I to Class VIII
(ii) Session 1997-98 to 2001-02
(iii) Four districts of Assam and Arunachal Pradesh i.e. Dhemaji & Kokrajhar of Assam and Lower Subansiri & Papumpare districts of Arunachal Pradesh

Analysis and interpretation of results: The obtained data were computed in the light of objectives formulated. Computation of Mean, Standard Deviation and *t – test* were employed for analysis of data. The values of Mean, SD, and *t* – value are presented in table 1 to 9 and those are put under:

Table-1: Wastage mean scores, standard deviations and t-value of the learners at the elementary school stage in Arunachal Pradesh and Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Arunachal Pradesh	5	155.2	18.323	10.896
Assam	5	328.2	30.419	

The obtained t- value 10.896 is significant at 0.01 level of confidence

Table-2: Wastage mean scores, standard deviations and t-value of the male learners at the elementary school stage in Arunachal Pradesh and Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Arunachal Pradesh	5	156	15.537	7.74
Assam	5	82.8	14.358	

The obtained t- value 7.74 is significant at 0.01 level of confidence

Table-3: Wastage mean scores, standard deviations and t-value of the female learners at the elementary school stage in Arunachal Pradesh and Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Arunachal Pradesh	5	72.4	21.62	6.569
Assam	5	172.2	26.20	

The obtained t- value 6.569 is significant at 0.01 level of confidence

Table-4: Wastage mean scores, standard deviations and *t*-value of the rural learners at the elementary school stage in Arunachal Pradesh and Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Arunachal Pradesh	5	72.8	9.57	13.34
Assam	5	157.8	10.57	

The obtained t- value 13.34 is significant at 0.01 level of confidence

Table-5: Wastage mean scores, standard deviations and *t*-value of the urban learners at the elementary school stage in Arunachal Pradesh and Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Arunachal Pradesh	5	82.4	14.24	7.71
Assam	5	170.4	21.19	

The obtained t- value 7.71 is significant at 0.01 level of confidence

Table-6: Wastage at the elementary school stage in Papum pare district of Arunachal Pradesh and kokrajhar district of Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Papum pare	5	96.8	17.30	5.0
Kokrajhar	5	151.8	17.48	

The obtained t- value 5.0 is significant at 0.01 level of confidence

Table-7: Wastage at the elementary school stage in Papum pare district of Arunachal Pradesh and Dhemaji district of Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Papum pare	5	96.8	17.30	7.6
Dhemaji	5	176.4	15.80	

The obtained t- value 7.6 is significant at 0.01 level of confidence

Table-8: Wastage at the elementary school stage in lower Subansiri district of Arunachal Pradesh and kokrajhar district of Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Lower Subansiri	5	58.4	11.28	10.04
Kokrajhar	5	151.8	17.48	

The obtained t- value 10.04 is significant at 0.01 level of confidence

Table-9: Wastage at the elementary school stage in Papum pare district of Arunachal Pradesh and kokrajhar district of Assam (1997-98 to 2001-02)

Group	N	Mean	SD	t-value
Lower Subansiri	5	58.4	11.28	13.59
Dhemaji	5	176.4	15.80	

The obtained t- value 13.59 is significant at 0.01 level of confidence

The Table-1 reflects that the obtained *t*-value 10.896 is significant at 0.01 level of confidence from 8 *df* as the computed t-value 10.896 is greater than the criterion *t*-value (3.36), therefore, the hypothesis is accepted. As the wastage mean score 155.2 of Arunachal Pradesh is lesser than the wastage mean score 328.2 of Assam or 7.08% wastage in Arunachal Pradesh and on the other hand 16.37% wastage in Assam.

The Table-2 shows that the obtained *t*-value 7.74 is significant at 0.01 level of confidence from 8 *df* as the computed t-value 7.74 is greater than the criterion *t*-value (3.36), therefore, the hypothesis is accepted. As the wastage of male learners mean score (156) with 53.35% of Arunachal Pradesh is higher than the wastage mean score (82.8) with 47.53% of Assam.

The Table-3 reflects that the obtained *t*-value 6.569 is significant at 0.01 level of confidence from 8 *df* as the computed t-value 6.569 is greater than the criterion *t*-value (3.36), therefore, the hypothesis is accepted. As the wastage of female learners mean score (72.4) of Arunachal Pradesh is lesser than the wastage mean score (172.2) of Assam.

The Table-4 reflects that the obtained *t*-value 13.34 is significant at 0.01 level of confidence from 8 *df* as the computed t-value 13.34 is greater than the criterion *t*-value (3.36), therefore,

the hypothesis is accepted. As the wastage of female learners mean score (72.8) of Arunachal Pradesh is lesser than the wastage mean score (157.8) of Assam.

The Table-5 reflects that the obtained *t*-value 7.71 is significant at 0.01 level of confidence from 8 *df* as the computed t-value 7.71 is greater than the criterion *t*-value (3.36), therefore, the hypothesis is accepted. As the wastage of female learners mean score (82.4) of Arunachal Pradesh is lesser than the wastage mean score (170.4) of Assam, therefore, in case of female learners there is more wastage in Assam as compared to Arunachal Pradesh.

The table-6 reflects the obtained *t*- value (5.0) is significant at 0.01 level of confidence for 8 *df*. Therefore, the wastage of learners at the elementary school stage in the district of Papum Pare and Kokrajhar differs significantly. The wastage of learners in Papum pare district of Arunachal Pradesh is lesser than Kokrajhar of Assam.

The table-7 reflects the obtained *t*- value (7.6) is significant at 0.01 level of confidence for 8 *df*. Therefore, the wastage of learners at the elementary school stage in the district of Papum Pare and Dhemaji differs significantly. The wastage of learners in Papum pare district of Arunachal Pradesh is lesser than Dhemaji of Assam.

The table-8 reflects the obtain *t*- value (10.04) is significant at 0.01 level of confidence for 8 *df*. Therefore, the wastage of learners at the elementary school stage in the district of Lower Subansiri and Kokrajhar differs significantly. The wastage of learners in Lower Subansiri district of Arunachal Pradesh is lesser than Kokrajhar district of Assam.

The table-9 reflects the obtain *t*- value (13.59) is significant at 0.01 level of confidence for 8 *df*. Therefore, the wastage of learners at the elementary school stage in the district of Lower Subansiri and Dhemaji differs significantly. The wastage of learners in Lower Subansiri district of Arunachal Pradesh is lesser than Dhemaji district of Assam.

The main findings relating to wastage at the elementary school stage in Arunachal Pradesh and Assam are put as under:

1. The wastage of learners at the elementary school stage in the Arunachal Pradesh (1997-98 to 2001-02) is lower than that of Assam.
2. The wastage of male learners at the elementary school stage in the in Arunachal Pradesh (1997-98 to 2001-02) is lower than the learners of Assam.
3. The wastage of female learners at the elementary school stage in Assam (1997-98 to 2001-02) is more as compared to the learners of Arunachal Pradesh.

4. The wastage of rural learners at the elementary school stage in the in Arunachal Pradesh (1997-98 to 2001-02) is lower than the learners of Assam.
5. The wastage of urban learners at the elementary school stage in the in Arunachal Pradesh (1997-98 to 2001-02) is lower than the learners of Assam.
6. The district wise wastage of learners at the elementary school stage in Papum Pare district of Arunachal Pradesh and Kokrajhar in Assam (1997-98 to 2001-02) differs significantly as the obtained *t*-value (5.0) is significant at 0.01 level of confidence. Therefore, the wastage was found more in Kokrajhar district of Assam as compared to Papum Pare district of Arunachal Pradesh.
7. The district wise wastage of learners at the elementary school stage in Papum Pare district of Arunachal Pradesh and Dhemaji in Assam (1997-98 to 2001-02) differs significantly as the obtained *t*-value (7.6) is significant at 0.01 level of confidence. Therefore, the wastage of learners at the elementary school stage in Dhemaji district in Assam is more than that of Papum Pare district of Arunachal Pradesh.
8. The district wise wastage of learners at the elementary school stage in Lower Subansiri district of Arunachal Pradesh and Kokrajhar in Assam (1997-98 to 2001-02) differs significantly as the obtained *t*-value (10.04) is significant at 0.01 level of confidence. Therefore, the wastage of learners in Lower Subansiri district of Arunachal Pradesh is lesser than Kokrajhar district of Assam.
9. The district wise wastage of learners at the elementary school stage in Lower Subansiri district of Arunachal Pradesh and Dhemaji in Assam (1997-98 to 2001-02) differs significantly as the obtained *t*-value (13.59) is significant at 0.01 level of confidence. Therefore, the wastage of learners in Lower Subansiri district of Arunachal Pradesh is lesser than Dhemaji district of Assam.

Conclusion: The above findings of the study lead us to conclusion that the wastage among the elementary school stage learners in Arunachal Pradesh is lesser than the learners of Assam in general. Further, sex wise comparison also shows that wastage among the male and female learners of Arunachal Pradesh is lower than the male and female learners of Assam and settlement wise also. The district wise comparison also shows that the wastage is more in the districts of Assam than that of the districts of Arunachal Pradesh.

Suggestion: On the basis of the above conclusions, it is suggested that the Govt. of Assam needs to put more efforts for improving the conditions of elementary schools as compared to Arunachal Pradesh. The teachers of the both states should take care of individual differences so that wastage rate can be minimized.

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