CHAPTER-V
SUMMARY & CONCLUSIONS

INTRODUCTION

All working people, be a farmer or an industrial worker, are interested in productivity which is fundamental to progress throughout the world and the most important tool for the acceleration of the process of development of a new order. Low productivity is one of the major weaknesses in the Indian economy which may be because of low level of skills and low per capita output of workers. An illiterate worker engaged in a semi-skilled job can not improve his efficiency or adapt himself to modern techniques without acquiring basic literacy and numeracy. Ignorant people can not build up, operate and maintain an elaborate modern economy. Inability to read and write is an enormous handicap in this space age as many ideas, instructions and pieces of informations come in written rather than in oral form.

Adult education, a world wide movement, is a systematic and organised activity which brings about modification in one’s way of life, attitudes, level of functionality, and develops in him various technical and professional skills. It also provides new information, knowledge, understanding concerning one's own profession and finally improves his social, cultural and economic life. Adult education is not confined to merely 3 Rs’, but includes contents and experiences which are related to adult’s environment and their professional efficiency and income. Government of
India has launched a mass campaign for realisation of all the above mentioned objectives and particularly, for attainment of total literacy.

The present study has been undertaken to assess the effect of adult education on enhancement of workers' productivity and development of literacy skills, requisite working skills, awareness, and positive attitudes. The present study has also been conducted by keeping in view various objectives of National Literacy Mission which is launched by Government of India.

After having a thorough review of related literature, the present study was entitled as "Adult Education Training and Productivity - A Study of Workers in Orissa". The study was undertaken with the following objectives:

1. To study the effect of adult education programme on the development of literacy skills of reading, writing and numeracy; and awareness aspects of workers.
2. To study the attitude of workers towards adult education programme.
3. To study the effect of adult education programme on development of working skills of workers.
4. To study the effect of adult education programme on workers' productivity.
5. To conduct separately case studies of maximum and minimum producing workers.

Keeping in view the objectives stated above, the following hypotheses were formulated for the present study:
1. Hypotheses On Literacy Skills

(a) Workers acquire prescribed level of reading skills as a result of adult education programme.

(b) Workers acquire prescribed level of writing skills as a result of adult education programme.

(c) Workers acquire prescribed level of numeracy skills as a result of adult education programme.

(d) There is no sex difference in acquiring reading, writing and numeracy skills. (e) There is no caste difference in acquiring reading, writing and numeracy skills among general, scheduled caste (SC) and scheduled tribe (ST) workers.

2. Hypotheses On Awareness

(a) Workers differ significantly in awareness as a result of adult education programme.

(b) There is no sex difference in awareness as a result of adult education programme.

(c) There is no caste difference in awareness as a result of adult education programme among general, SC and ST workers.

3. Hypotheses On Attitude

(a) Workers show positive attitude towards adult education programme.

(b) There is no sex difference in the attitude of workers towards adult education programme.

(c) There is no caste difference in the attitude of general, SC and ST workers towards adult education programme.
4. **Hypotheses On Working Skills**

(a) Working Skills of workers improve significantly as a result of adult education programme.

(b) Male and female workers do not show significant difference in the improvement of working skills.

(c) General, SC and ST workers do not show significant difference with improvement of working skills.

5. **Hypotheses On Productivity**

(a) The productivity of workers improve significantly as a result of adult education programme.

(b) There is no sex difference in the productivity of workers due to adult education programme.

(c) There is no caste difference in the productivity among general, SC and ST workers as a result of adult education programme. (d) There is positive co-relation between literacy skills and productivity of workers.

(e) There is positive relationship between awareness and productivity of workers.

**Design of the study**

In the present study which is experimental in nature, single-group Pre-test and Post-test design was employed. The same group of workers were observed in Pre-test session on different variables such as awareness, attitude, working skills and productivity; and the same group were also observed in Post-test session on variables like literacy skills, awareness, attitude, working skills and productivity.
The difference of performances between Pre-test and Post-test was attributed to the training programme i.e. adult education programme. The design may be presented as:

\[ O_1 \rightarrow X \rightarrow O_2 \]

where, \( O_1 \) represents Pre-test, \( O_2 \) represents Post-test and \( X \) represents treatment. Single-group Pre-test and post-test design was preferred in this study on the rationale that in case of control group and experimental group design, there would be carry-over effect of treatment on control group in two-groups design since all workers belong to same factory and worked at same place. Moreover, their residences were also very nearer to each other.

**Sample of the Study**

The purposive sampling design was employed for selection of twenty illiterate workers in two phases. The first phase dealt with the selection of an industry for conducting the training programme which was done by keeping the following factors in view, such as: (a) output of the mill can be measurable on the basis of Physical Units, (b) the nature of work of about 50 illiterate workers should be similar, and (c) there should not be any plan to change the manpower and machinery of the mill during training period. Gangpur Spinning Mill was selected in the first phase by considering the above factors. The second phase was devoted to the selection of 20 illiterate workers by considering criteria of age-group, caste, sex, working experience,
monthly income, and initial schooling. The sample was distributed in the following manner:

<table>
<thead>
<tr>
<th>Caste</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.C.</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>S.T.</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>General</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>07</td>
<td>20</td>
</tr>
</tbody>
</table>

**Tools Used**

Following tools were employed in the study which are:

i) An Interview Schedule to know Workers' background;

ii) Observation Schedule for recording working skills and productivity of workers;

iii) Interview Schedule to know workers' attitude towards adult education;

iv) A self-prepared Literacy Test for reading, writing and numeracy skills; and

v) A self-prepared Awareness Test.

**Procedure**

Procedure of the study has been reported in two parts: (a) pre-experimental stage, and (b) conduct of the experiment.

**Pre-experimental stage**

This stage being preparatory in nature consists of content analysis, methods of teaching, instructor and duration of teaching programme.
(i) Content Analyses

Lesson-wise analysis of content areas of ‘Amakatha’ of part I, II, III which were prepared by the State Research Centre, Orissa, were analysed by the author to judge its suitability for the present study.

(ii) Methods of Teaching

The main strategy of teaching, followed by the author, was simultaneous use of reading-writing of words and letters of alphabets. A participative approach along with a direct and personal attention was given during the instruction.

(iii) Instructor

The researcher, on the basis of his own experience decided to handle the responsibility of instructions.

(iv) Duration of teaching programme

Adult education programme was conducted for a period of six months by providing opportunity to workers for attending the programme at least 200 hours in the entire teaching period.

Conduct of the Experiment

The experiment was conducted in three phases. The first phase was attributed to administration of awareness test, attitude test, observation of productivity and working skills followed by conducting adult education programme in the second phase. The third phase which is also known as post-test, was devoted to administration of literacy test, awareness test, attitude test, observation of productivity and working skills.
Statistical Techniques

To analyses the data and test the hypotheses, the following statistical techniques were employed:
i) Descriptive Statistics Like Mean and SD,
ii) t-ratio for findingout significant difference between the means, and
iii) Product-moment correlation

Result and Conclusions

Results and conclusions on literacy skills, awareness, attitude, working skills, productivity and case study of two workers have been highlighted in the following paragraphs.

1. Results and Conclusions on Literacy Skills

Adult education programme has developed prescribed level of reading, writing and numeracy skills among all workers which support hypotheses no. 1(a), 1(b) and 1(c) respectively. This result of literacy skills may be attributed to the fact that all illiterate workers have been influenced by the literacy programme. So, it can be concluded that adult education programme has positive impact upon illiterate workers in learning literacy skills.

Male and female workers do not differ significantly in learning of literacy skills as a result of adult education programme which supports null-hypothesis 1(d). The reasons might be due to some common content areas existed in the literacy programme which was regarded as useful and necessary by both male and female workers in the equal manner. It is, therefore, concluded that adult education programme has
applicability as well as positive impact upon both male and female workers.

It was found that general, Scheduled Caste (SC) and Scheduled Tribes (ST) workers have not shown significant difference in achieving literacy skills which supports null-hypothesis 1(e). This result may be contributed to the fact that literacy programme has influenced people from all sections of the society and caste is no more a problem for learning literacy skills as revealed in this study. Hence, it is concluded that adult education programme has positive impact upon general, SC and ST workers without any doubt.

2. Results and Conclusions on Awareness

Adult education programme has positive impact upon awareness since workers' awareness scores were higher in Post-test session in comparison to Pre-test session. This result which supports hypothesis no. 2(a) may be attributed to the fact that adult education programme has contained some aspects of awareness which have been developed among workers. It is therefore, concluded that as a result of adult education programme, people are aware of about various aspects of the society. It may be further suggested that literacy programme should be undertaken as a means for making people conscious about their environment.

There is no significant difference between male and female workers on awareness as a result of adult education programme which clearly shows that both male and female workers were equally motivated in acquiring awareness which supports hypothesis no. 2(b).
There is a significant difference of general workers with SC and ST workers although SC and ST workers do not differ significantly in acquiring awareness as a result of literacy programme. The comparatively lower performance of SC and ST workers in acquiring awareness may be because of their lower socio-economic background than general workers. This difference may also be contributed to the fact that general workers may have been more ambitious in their life for which they would be showing more interest to know many things about the changing environment and society as a whole. This result may also be contributed to the fact that general workers have better communicative facilities. However, this result partially supports the hypothesis no 2(c).

3. Results and Conclusions on Attitude

Scores on attitude showed that all workers have shown positive attitude and seven of them have shown highly positive attitude towards adult education programme in Post-test stage which supports null-hypothesis No. 3(a). This result might be due to the fact that adult education programme has contained some lessons which have been useful for developing positive attitude of workers towards literacy programme. Therefore, it can be confirmed that adult education programme has positive impact on workers in changing their attitude positively towards adult education.

Male and female workers do not differ significantly on their attitude towards adult education programme which confirms null-hypothesis no. 3(b). This result may be due to
the fact that adult education programme has attracted to both sex (male and female) in equal manner. It is, therefore, concluded that there is positive impact of adult education programme on changing attitude of both male and female workers.

There exists a significant difference among SC and ST workers on attitude towards adult education programme in the sense that in compared to SC workers, ST workers have higher positive attitude towards adult education programme. This difference among SC and ST workers may be attributed to the fact that ST workers are highly ambitious and motivated for development of their future life than that of SC workers. On the other hand, there exists no difference between general and SC workers on attitude towards literacy programme. In the same way, no clear cut difference is found among general and ST workers on their attitude towards adult education programme. Therefore, the above results which have been discussed partially supports hypothesis no. 3 (c).

4. Results and conclusions on Working Skills

Working skills of various workers improved significantly in Post-test session in comparison with pre-test session which may be attributed to the fact that adult education programme has contained some motivated factors which brought this improvement of working skills in Post-test session. From this result, it can be concluded that working skills of workers improve significantly as a result of adult education programme which clearly supports the hypothesis no. 4 (a).
Male and female workers do not differ significantly with regard to development of working skills as a result of adult education programme. This result may be due to the fact that both male and female workers have equal working skills. From the above results, it can be concluded that there is no significant difference between male and female workers on working skill due to adult education programme which supports null-hypothesis no. 4 (b).

So far as the sex variable is concerned, general, SC and ST workers do not differ significantly as a result of adult education programme which may be because of universal effect of the programme upon all workers. It is, therefore, concluded that adult education programme has positive as well as universal impact upon all sections of people on working skills which confirms null-hypothesis no. 4(c).

5. Results and Conclusions on Productivity

There exists significant difference between Pre-test and Post-test sessions with regard to workers' productivity as a result of adult education programme. This result may be attributed to the fact that adult education programme plays a significant role in shaping positive attitude towards development of working efficiency and inculcating urge of productivity. It may be further stated that workers' consciousness and their expectations for economic improvement which developed through adult education programme might be a cause for enhancing productivity.
It is, therefore, concluded that the productivity of workers improves significantly as a result of adult education programme which supports the hypothesis no. 5 (a). Hence, it is suggested that Government, adult education planners and policy makers in collaboration with the employers of organised and unorganised sectors should develop various programmes for removal of illiteracy from their respective sectors which would lead to higher productivity.

There exists no significant difference between male and female workers on productivity as a result of adult education programme which supports null-hypothesis no. 5 (b). It may be attributed to the fact that the basic purpose of adult education programme is general in nature without any gender bias which influenced both male and female workers equally. It can be further stated that both male and female workers have realized the importance of higher productivity through adult education programme which resulted positively.

There is no significant difference among different categories of caste variable (SC, ST and General) on productivity as a result of adult education programme. This may be contributed to the fact that socio-economic status and caste are weakly or mildly related to workers' productivity as supported by William (1970).

It is, therefore, concluded that adult education programme has an equal impact upon all sections of people regardless of caste variable which supports null-hypothesis no. 5(e).
6. Results and Conclusions on Literacy Skills and Awareness with Productivity

Adult education programme has positive impact upon attainment of literacy skills and higher productivity. The correlation \( r = .91 \) shows that there is highly positive relationship of literacy skills with productivity which leads to conclude that higher the literacy skills, higher would be productivity. Hypothesis no. 5(d) formulated in this regard, thus, stood supported by these results.

There exists a high and positive relationship \( r = .72 \) between awareness and productivity which reveals that productivity of workers will certainly increase up to a great extent as a result of awareness which supports hypothesis no. 5(e).

It is, therefore, suggested that adult education programme must be rejuvenated with the objectives of total literacy which enhance productivity in the long run.

7. Results and Conclusions of Case Study

Case studies of maximum producing worker (worker no. 12) and minimum producing worker (worker no. 3) were conducted which revealed the following positive and negative indicators of literacy and productivity.

(a) Literacy (Positive Indicators)

(i) Adult education programme and total literacy campaign may provide opportunity for learning literacy skills.

(ii) High aspiration and self-image motivate the worker for achieving literacy skills.
(iii) Adult education programme may develop self-confidence among workers for higher literacy.
(iv) Positive attitude of workers may motivate for higher literacy.

(b) Literacy (Negative Indicators)
(i) Unsuitable local environment may hamper literacy programme.
(ii) Negative attitude towards literacy programme may not motivate workers for achieving literacy.
(iii) Alcohol addiction may not motivate workers for joining literacy classes.

(c) Productivity (Positive Indicators)
(i) Attainment of literacy may lead to higher productivity;
(ii) A sense of belongingness towards organisation may increase productivity;
(iii) Work culture as well as awareness of the worker that was created due to various discussion during adult education programme may lead to greater level of productivity.
(iv) Positive attitude and high aspiration may motivate workers for higher productivity.

(d) Productivity (Negative Indicators)
(i) Partiality of high officials towards any worker may hamper productivity.
(ii) Negative attitude towards work is a major problem of productivity.
(iii) Alcohol addiction brings about inefficiency in the work.
(iv) Lower self-image and low confidence may not motivate workers for higher productivity.

IMPLICATIONS

On the basis of the findings of the present research, the author feels that he is in a position to say something by giving suggestions to the adult educational planners, administrators, implementers and other related officials so that they may help in total literacy programme.

1) This study has special implication for employers of unorganised sectors to a great extent since this is the most neglected sector in our country where a large number of illiterate workers and daily-wage labourers are engaged for their livelihood. No systematic planning has been made so far for the removal of illiteracy amongst these workers through diversified schemes of formal and non-formal education. The present study reveals convincingly that adult education has a positive impact upon the productivity of workers in the factory which will motivate to both employers as well as workers for both personal development as well as for better production.

2) Emphasis should not be given only to industrial workers since a major bulk of illiterate workers are still working in agricultural and allied sectors. Rather, more importance should be given to agricultural workers by developing various comprehensive programmes.
3) Voluntary organisations should come forward to cooperate with industries and government for removal of illiteracy which may lead to economic development.

4) Institute of Applied Manpower Research (IAMR) and Census Department can assist in identifying illiterates as well as unskilled workers from organised and unorganised sectors for literacy programme.

5) This study has implications for illiterate women and backward sections which is the major target area as identified by educational planners in the VIII Five-Year Plan. Adult women are equally potential to share both in industrial as well as agricultural production. Therefore, emphasis should be given to illiterate women for their enrollment and retention in various programmes of adult education.

Suggestions For Further Research

i) The present study was limited to Sundargarh district of Orissa which may be extended to other districts of Orissa and to other states as well.

ii) The present study was conducted on twenty workers. The total sample of workers may be extended to further validate the results.

iii) Two separate models for industrial and agricultural workers can be developed for conducting adult education programme in order to enhance productivity in the respective sector.
iv) For the development of the status of women through adult education various researches may be conducted.

v) It may be suggested that other than literacy programme, further research on functional literacy may be conducted for the development of workers' standard of productivity.

vi) Since in this research, there exists a high and positive correlation between awareness and productivity, it may be further suggested that more studies regarding the influence of mass media on productivity be conducted.