TARGETS
for
CRAFT WORK

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Ministry of Education
Government of India
New Delhi-14.
1960

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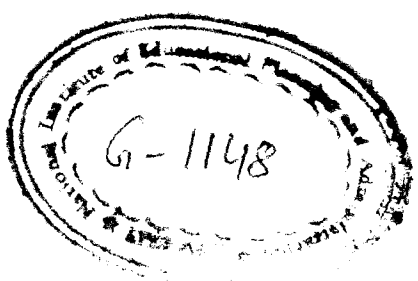

CONTENTS

PREFACE

Shri M. Jayaraman of the Post-Graduate Basic Training College, Oraihnad, Madras who worked with us as a Research Fellow for the year 1958-59 studied the problem of evolving targets for some crafts for the various grades of Basic schools. The present publication is a report of this study.

The problem of fixing targets for craft work is an important problem in Basic education. There are two extreme positions taken in this respect. While some persons feel that it may be educationally unsound to lay targets, as they tend to curb creativity of the pupil, others believe that craft work cannot be made purposive without prescribing targets. Shri Jayaraman's study has shown that the targets may be useful from a certain grade and may be considered in ranges rather than as specific requirements.

Shri Jayaraman's study has its limitations, being a study based on questionnaires and interviews. This is a preliminary study which could be followed by experimental work in the actual classroom situations.

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INTRODUCTION

Productive craft occupies a central place in the programme of Basic education. The main idea behind the introduction of craft in education is that it is able to draw out the best from the child and to help the child become productive and creative. The value of craft as a vehicle of learning was emphasised even before Gandhiji. But Gandhiji introduced a new idea. In his own words: "My point is not that the start should be made with crafts and the next should come in as auxiliaries. On the contrary, I have said that the whole of the general education should come through the crafts and simultaneously with their progress." (9, p. 39)*. According to him productive work should not only form part of the school curriculum but should also inspire the method of teaching all other subjects. This is what Gandhiji means when he says "every handicraft has to be taught not merely mechanically as is done to-day but scientifically."(7, p. 44 Thus the exploitation of craft for educating the whole personality of the child is a significant contribution of Gandhiji.

The requirement that craft should be self supporting is only a logical corollary of the value of craft as a medium of education. It was not by sudden insight that Gandhiji got this idea but he had evolved this principle actually experimenting it for so many years on the Tolstoy Farm in South Africa. Besides this, there were certain other considerations also behind this principle. One was the appalling poverty of our people who cannot afford to pay for the education of their children. He knew for certain that it would be impossible for the Government to find out resources to meet this great demand. So he offered a practical solution to this problem. More than this, Gandhiji viewed this problem with his avowed principle of non-violence. He contemplated that self sufficiency in education would ensure production of self-sufficient individuals having practical faith in non-violence and non-exploitation.

This proposition of self sufficiency was so novel and revolutionary that it invited attacks even in the Conference held at Wardha in 1937. Even after long discussion in the conference, this proposition was passed with the significant dissent of one member. (7, p. 82). The Zakir Hussain Committee which drew up the scheme of Basic education categorically accepted this idea as a sound educational principle and observed that besides its economic gains, it would serve as a check for ensuring thoroughness and efficiency in teaching and in the work of the students. (5, p. 97).

However the economic aspect of the craft work was so much emphasized that there was an inherent danger of losing the educative value of the craft while working out the scheme in concrete form. So the Zakir Hussain Committee gave a note of warning on the point.

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* For numbers in parentheses please refer to the References on p. 50.

It was clearly pointed that the productive crafts are only a means to an end, the end being the development of the all-round personality of the child, hence the educative objective should not be sacrified for the sake of economic objective. (7, p. 97).

As there was so much controversy, among the educationists on this aspect of Basic education, the policy of the Government in viewing the principle was that of experimenting and assessing the results. Immediately after the scheme was drawn up, the Central Advisory Board of Education appointed a committee under the Chairmanship of Shri B.G. Kher, the then Premier of Bombay, to examine the scheme. The committee while accepting the principle of education through activity pointed out that the scheme was one of education and not of production, and that the production of saleable material might be possible only in higher classes. (16, p. 141).

The Central Advisory Board of Education, in January, 1950 again considered this aspect on the basis of a memorandum submitted by the Bihar Government. The Board while welcoming the experiments that were being made in Bihar, were not in a position to express a definite opinion on this aspect and suggested that the Government should undertake an investigation in this direction and report the results to a committee of experts. Accordingly a committee was appointed which selected two senior officers of the Government of India, to go into the matter and report their findings. This team besides collecting statistics from Basic schools all over India, made an on-the-spot investigation of some of the institutions in Bihar. The committee considered the report of the two officers and unanimously came to the conclusion that it was essential to give importance to the self-supporting aspect of Basic education and recommended to the Government for the proper implementation of this aspect of the scheme. The Committee added that even the scholastic achievements had not suffered inspite of the time given to craft. (2, p. 37).

More recently Assessment Committee on Basic education considered this aspect. They found that in various States different ideas and practices concerning self sufficiency were followed. In most of the States, the practice of remitting the sale proceeds from craft work in Basic schools into the treasury was continued. But in some States a broader view was taken and efforts were made to ensure that the produce contributes a fair proportion to the needs of the school community in terms of food and clothing. They found two divergent views regarding this principle of self-sufficiency, "one of these holds rigidly to the view that income from productive work of Basic schools can and should make a worthwhile contribution towards running costs, particularly the salary of the teachers. The other view is that whatever work children do in Basic schools assumes importance only as the medium of learning and not as a means of any sort of economic gain". (13, p. 51).

Later on the Standing Committee on Basic Education prepared a statement on this point. This committee while explaining the concept of Basic education states "that the fundamental objective of Basic education is nothing less than the development of the child's total personality which will include productive efficiency as well. In order to ensure that the teaching of the Basic craft is efficient and its productive possibilities are fully realised, we must insist that the articles made should be of good quality, as good as children at that stage of their development can make them, socially useful and, if necessary saleable. The acquisition of skills and the love for good craftsmanship have deeper educational significance than merely playing with the tools and raw materials which is usually encouraged in all good schools. This productive aspect should in no case be relegated to the background as has been usually the case so far, because directly as well as indirectly, efficiency in the craft practised undoubtedly contributes to the all round development of the child; but on the other hand, never should the productive aspect be allowed to take precedence over the educational aspect". (12, p. 3).

In spite of the elucidation of the Government certain critics continued to point out the undesirable results of holding this principle of self sufficiency in the actual practice of Basic schools. It has, for example, been pointed out that children and teachers are more concerned with the productive aspect than with the educational outcome. "A fourteen year old boy when he finds he can earn enough money at that age to meet his needs, good or bad, will seldom be prompted to learn further or pay much attention to what he learns as such ". (5, p. 176). Similarly a teacher who know that the efficiency of the school is assessed on the basis of its ability to produce saleability of articles would be creating better and better factory workers". (5, p. 176). So according to these critics the idea of measuring or valuing materials produced as a test of efficient education is not tenable. If learning takes place through productive work or through any other work, it is immaterial what quality and quantity of materials are produced and it is thoroughly irrelevant to calculate the economic returns from the materials produced. Further the mixing up of the issue of economic return with the education will pull education down to the lower level.

Recently some educationists have pleaded for 'creative' aspect of craft work in preference to 'productive' aspect. "There is too much of routine activity in the craft classes in our Basic schools, with little or no accent on creativity, and the preponderant economic motive is largely responsible for the routine type of work required of the pupils." (17 They feel that objective of the economic gains will lead to the rigidity of producing the same type of articles, with required specifications.

The value of crafts in Basic education has been recognised by all concerned, though the question of self-sufficiency has been a point of criticism ever since its adoption by Basic education experts. In fact, the concept of self-sufficiency has undergone evolution and has taken different shapes in the different States. Even if the principle of self-sufficiency in its original form is not accepted, it is a fact that craft work in Basic schools would result in the production of material. The practical problem has always faced the administrator as to what standardss s ls of production should be expected in the different crafts for the different grades. While some persons may feel that laying down of such targets may under-mine educational objectives and may go against the creative urges of the child, it is, perhaps necessary to know how craft work is being planned in the various States from the point of view of expected work in the different grades. While keeping the necessity of ensuring educational outcomes in view, it may be useful to find out a range of the standards of craft work in terms of productivity. The present investigation is concerned with this broad problem.

THE PROBLEM

The problem is to find out certain targets in crafts for Basic schools. A list of tentative targets in spinning is available (10, p.41), but this was worked out when Basic education was confined to a few experimental schools. Since independence all the States have been implementing this scheme and there is a large number of Basic schools working in every State. This would offer a good opportunity to apply the targets already evolved on larger samples and to arrive at more correct conclusions. The project is undertaken with in the light of experience as well as to suggest targets in weaving and wood-work.

Need for the Study

Basic education envisaged that the study of the curricular content should be related to three main centres of correlation, viz., craft work, the natural environment and the social environment craft forms the natural meeting point of these two environments, since it utilizes the resources of the former for the purposes of the latter. Moreover, the craft occupies the pivotal place in the educational programme of Basic schools, as it shows as a vehicle of learning as well as the medium of creative and productive work. These two aspects are so vitally related that it is impossible to conceive of one without the other. The craft is practised not only for its economic outcome but also for the educative possibilities. In order to ensure that educative possibilities are fully realised and the craft is practised seriously, the achievements in craft should be properly assessed. Assessment has to be done in terms of some targets to be fixed in the various crafts. Unfortunately no special efforts have been made in this direction. Attention to this problem has been paid by Hindustani Talimi Sangh its syllabus published and recently revised (11). But it gives a list of targets expected to be achieved in spinning craft only by children of I - V grades (10, p. 42-45). For other crafts such as weaving, wood-work and agriculture, no such targets are formulated. Many of the States are simply following the targets specified by Hindustani Talimi Sangh, as such or with slight modifications. This aspect has been further discussed in Chapter IV. The Assessment Committee of Basic education, which had surveyed and evaluated the Basic education institutions all over the country, had pointed out that productive aspect of craft work was badly neglected in all the States (13, p.40). According to the Committee, the main reason for this sorry state of affairs was that the schools had not been provided with the minimum requirements needed to do craft work effeciently. But it has to be found out whether any other factors have been responsible for the lowering of craft standards.

Country-wide failure to reach the targets is a sufficient ground to suspect the validity of the targets set. Moreover, there is no sufficient evidence to indicate that the targets laid down have been standardised after thorough investigation. The various State Departments have adopted

the same targets without making any experimental study on the problem. Targets once set need revision from time to time in the light of new experiences and experiments. So it is necessary that the targets are periodically reviewed and revised in accordance with the demands of the new situation. Surprisingly no such attempt has been made to investigate into the need for the revision of the targets which have been laid down in the syllabus prepared by Government of India in 1950 (14, p. 1). However, Hindustani Talimi Sangh issued a revised syllabus for Basic schools (11), wherein the targets in spinning have been revised. The problem of reviewing the targets and revising them in the light of the experience gained is an important one.

Purpose of Study

Absence of well defined targets for the most commonly practised crafts like spinning, weaving, wood-work and agriculture resulted in low standard of production. As the poor quality of produce could not find market, a large quantity of produce of Basic schools is getting accumulated and wasted. This has been the point of criticism, as it would mean that the principle of self-sufficiency is not practicable. So the proposal of targets would enable the authorities of Basic schools to assess the efficiency of craft work and to ensure maintenance of standard of craft-work to a great extent.

The technique of evolving targets will vary from craft to craft, as each craft would differ in the nature of raw materials used, the processes involved and time taken for the preparation of articles. The criteria for assessing the quantity and the quality of production would, consequently be different for each craft. So the second purpose of the study is to analyse the current practices and to evolve criteria for proposing the targets in these two crafts.

In spinning and weaving, where targets have been laid down the majority of schools were not able to achieve the specified targets. In the event of such failure, the proper thing would be to study the factors affecting the achievements of the craft work so that certain remedial measures may be taken up. Hence the third object of the study is to explore the causes for the failure in achieving the targets laid down previously.

Scope of the Study

The study of evolving targets in craft-work for Basic schools would involve so many problems but the present study is confined to the following points.

(a) Analysing the various syllabi which have indicated targets in craft work and finding out the criteria on which they have been evolved.

(b) Surveying the current practices followed in the Basic schools of the various States regarding the targets and also the achievements in relation to the targets in craft.

(c) Analysing the factors which affect the achievements in crafts.

(d) Evolving criteria for laying down targets and proposing tentative targets in terms of quantity and quality.

Limitations of the Study

Taking into account the limitation of time and other physical limitations, surveying of Basic schools could only be done through a questionnaire. So many administrative and organisational factors which would influence the craft achievements could not be made out through this technique. It has, therefore, given an overall picture of the working of Basic schools as regards craft work and has not provided detailed analysis of all the factors involved in achievement in craft in these schools.

The selection of the sample schools could not be made on a strictly scientific basis as the researcher had to depend much on the Directors of State Education Departments, for obtaining information about the schools and for collection of data. The survey has to be limited to those sample schools supplied by the Education Department of each State.

The questionnaire is not a very effective instrument for obtaining the detailed data. Moreover, the respondents are not able to respond properly and it is found that data for certain aspects of the problem are not relevant to the questions. This has naturally limited the value of the data collected.

Adopting craft as a medium of imparting knowledge is a unique thing in the Basic education. No scientific study has been made to assess achievement in craft and in fixing targets for craft work with that objective. This has been a great handicap in the present investigation. The present investigation is, therefore, of an exploratory nature. The tentative targets have been evolved on the basis of available resources, such as, the syllabi of States, current practices followed in Basic schools of States, and the opinions and guidance of experts. More advanced techniques would not be employed because of the exploratory character of the study.

The try out part of the study could not be taken up within the period, for, it is found desirable that the period of try out should be at least one year in order to realise the full implications of the targets evolved.

THE PROCEDURE

The study of evolving targets would be an exploratory one, as no such investigation has attempted so far to evaluate the achievement in crafts of Basic schools. Consequently, new ground had to be broken and recourse had to be taken to the utilisation of the limited resources such as, literature dealing with the objectives of crafts and the targets proposed in the syllabus of different States.

As the curriculum of Basic education is flexible, it gives rise to different methods and varying practices. Therefore, the current practices in crafts vary from State to State and school to school. A study of the current practices as revealed through the analysis of syllabi of the Basic schools formed an important part of the investigation. In this connection, it was also felt that the experiences of experts would be helpful in getting an idea about the targets. For this purpose questionnaires were prepared and issued to the persons concerned.

Study of Syllabi of Basic Schools

As a preliminary part of the study, the investigator went through the syllabi for Basic schools published by the Hindustani Talimi Sangh, the Ministry of Education and the various State Governments to find out current practices of specifying targets of achievement in crafts. This study revealed the method of assessing the produce of craft work, defined in quantity as well as in quality, the manipulation processes involved in each craft work, the speed targets in various processes of craft work for different grades and the allotment of time for the crafts in view of its place, i.e., as a main craft and as a subsidiary craft. Besides this, this study gave an insight into the problems connected with laying down the targets viz., the fixing of working days of the course, the daily allotment of time, the apportioning of time for the primary and ancilliary processes of craft etc. A detailed analysis and findings of the study is given in chapter 4.

Survey through Questionnaire

Questionnaire is a convenient instrument of a survey involving the collection of data from wide and scattered sources i.e., Basic schools of different States of the country. A questionnaire comparising of three parts was formulated wherein the first part dealt with the general information about the school, the second was devoted to the current practices in craft targets and opinions of the teachers about these and third part was concerned with the assessment methods in craft work. (See Appendix 1).

Selection of Sample Schools

With a view to save time in getting detailed information about the simple schools to be surveyed, the Directors of Education of the States were requested to supply a list of ten schools under different managements following different crafts. Besides these ten schools the questionnaire was sent to the practising schools attached to the training colleges in each State. Thus the schools represent the different types of schools with regard to craft practices and achievements.

Questionnaire to the experts

In order to find out the views of the experts about the objectives of having targets in craft, the terms by which these could be defined and the norms that could be achieved in the crafts of spinning and weaving and wood-work. A questionnaire was prepared (vide appendix 2). This questionnaire was issued to ten educationists having sufficient experience in the field of Basic education, all Principals of Basic Training Colleges for graduates, the crafts instructors of these training colleges and a few experienced supervisors of Basic institutions in each State. The responses on the questionnaire revealed the views regarding the agency prescribing the targets, the maximum time desirable for craft practice and speed targets in spinning and weaving.

Interviewing the Teachers

The study of the syllabi and the analysis of the data from the Basic schools were not much helpful in connection with the targets for wood-work. It was, therefore, necessary to make use of the experiences of teachers in the field. One Principal of a training college, where wood-work was taught was interviewed and discussions were done with the wood-work lecturer of the college on the methods adopted for evaluating the achievements of wood-work. Two senior Basic institutions in Delhi were also visited where the achievements of pupils in this craft were studied and discussion about the evaluation methods were held with the teachers. This interview and discussion proved greatly useful in connection with the problem of evolving targets in the craft.

Proforma on Weaving and Wood-work

The technique of evolving targets of achievements would be quite different in weaving and wood work from those of spinning. No scale should easily be evolved to measure the quality of production in these crafts as the articles would be varied in size, design, texture etc. Moreover, there is no standard or uniform method followed in the processes,

since these would differ for one article to the other. It is also difficult to standardise the speed of the various processes as the production of a single article would involve a combination of many processes of different proportions according to the types of the article made.

Keeping in view all these factors that are involved in the determining of the targets of achievement, a proforma was prepared for these two crafts and was issued to Basic schools having these crafts and practising schools attached to the Basic training colleges. This was helpful to study the list of articles prepared by pupils of each grade, the varied processes involved in preparation of each article, the nature of raw-material, the total time taken by an individual pupil for completing the work. The data collected through these proformas were analysed and tabulated in chapter IV.

CRAFT TARGETS IN THE SYLLABII

This chapter presents the analysis of the study made of the source materials on this problem. The syllabi of various States, being one of the scurce materials were studied with a view to find out the current practices and principles for laying down targets in crafts.

The syllabus for Basic schools published by Hindustani Talimi Sangh (10) and pamphlet No. 70 published by the Government of India (14) are the main sources since these serve as models for the syllabi of the various States. In this connection, the syllabi of the States of Andhra (1), Bombay(4), Bihar(3), Himachal Pradesh (8), Mysore (15), Punjab (18) and Uttar Pradesh (21) were analysed. Of the remaining States, some have stated that they are following the syllabus of Hindustani Talimi Sangh, while others have reported that the syllabus is under revision. Because of these reasons the other syllabi were not taken up for analysis.

One of the factors in the determination of targets for craft work is time, as the skill and output are mainly based on the quantum of time allowed for the practice of the craft. This factor is analysed and presented in Table 1. It is found that daily time allotment for craft practice varies from syllabus to syllabus. The yearly allotment is reckoned on the basis of number of working days and the daily time allowed for craft. The time allotment varies from grade to grade because of the increase in the daily allotment. (Vide pamphlet No. 70, Andhra and Bihar). Himachal Pradesh is having the lowest time allotment in both ways and Pamphlet No. 70 gives the maximum time for craft.

There seems to be some relationship between the time factor with the quantity of output and the skill (speed), as can be seen from Table 2. In both these aspects, the targets of Pamphlet No. 70, Hindustani Talimi Sangh, Bihar and Mysore are higher than those of others, as they provide more allotment of time. In the speed targets of two instruments, takli and charkha, as the takli is introduced at I grade, the speed targets of takli are given from I grade in all cases, except the punjab, where it is introduced at grade II. For grade I, the targets in Andhra are very low. For grade II, the targets of Punjab are the lowest, most probably because it is the initial stage for takli spinning. The targets of Hindustani Talimi Sangh and Pamphlet No. 70 are the highest. For grade III the targets of these two are of the same as that of grade II. For IV and V grades the targets of Andhra, Bihar and Himachal Pradesh are the highest and these are not mentioned in the case of Pamphlet No. 70 and Hindustani Talimi Sangh.

The charkha is introduced in grade II in the case of Pamphlet No. 70, and Hindustani Talimi Sangh and Mysore but in the case of other syllabi it is introduced in Grade III. Though Mysore has introduced Charkha in Grade II its targets are lower than that of Pamphlet No. 70 and Hindustani Talimi Sargh. Hindustani Talimi Sangh, Andhra and Mysore have stated targets for grades upto VIII, and the other syllabi have indicated only upto grade V.

Table 1
Allotment of Time for Craft Work

Grades	Time (hrs.)	Names of the syllabuses*							
		A	B	C	D	E	F	G	H
I	Daily	2	2	1½	1 1/6	1	1½	-	1 1/3
	Yearly	400	400	330	230	150	300	-	270
II	Daily	2	2	1½	1 1/6	1	1½	1	1 1/3
	Yearly	4000	400	330	230	150	300	200	270
III	Daily	2½	2	1½	1 1/6	1	1½	1½	1 1/3
	Yearly	500	400	330	230	150	300	200	270
IV	Daily	2½	2	2	1¼	1	1½	1½	1 1/3
	Yearly	500	400	440	250	150	300	200	270
V	Daily	2½	2	2	1¼	1	1½	1½	1 1/3
	Yearly	500	400	440	250	150	300	200	270
VI	Daily	3	2	2½	1½	-	1½	-	-
	Yearly	720	400	550	330	-	300	-	-
VII	Daily	3	2	2½	1½	-	1½	-	-
	Yearly	720	400	550	330	-	300	-	-
VIII	Daily	3	2	2½	-	-	1½	-	-
	Yearly	720	400	550	-	-	300	-	-

Quantity Targets

Regarding the quantity targets, Hindustani Talimi Sangh, Andhra and Mysore have indicated the targets for all grades but the other syllabi havve mentioned targets only for grades upto V. Panjab has indicated quantity targets only for grade II and Bihar has given aggregate targets instead of separate targets for charkha and Takli. As the quantity targets seem to to be related to the speed targets and the allotment, the targets of Himacchal Pradesh are lowest for all the grades.

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* In this table and all subsequent tables the symbols used for the various syllabii are as follows:

A - Pamphlet No. 70 (14)
B - Hindustani Talimi Sangh (10)
C - Andhra (1)
D - Bihar (3)
E - Himachal Pradesh (8)
F - Mysore (15)
G - Punjab (18)
H - Uttar Pradesh (21)

Table 2
Spinning Targets (Speed and Quantity)

Grades			Names of the syllabuses							
			A	B	C	D	E	F	G	H
I	Speed*	T	40	40	20	40	30	30	-	30
	Quantity		12½	12½	5	8	3½	6	-	6
II	Speed	T	80	80	40	60	50	50	30	45
		C	120	120	-	-	-	80	-	-
	Quantity	T	12½	-	12	16	6	8	6	9
		C	18½	-	-	-	-	9	-	-
III	Speed	T	80	80	80	80	80	60	50	60
		C	160	160	100	120	100	100	80	90
	Quantity	T	12½	5	25	30	3	8	-	5
		C	50	60	5	-	10	40	-	20
IV	Speed	T	-	-	100	100	100	-	60	-
		C	213	200	200	160	150	107	120	120
	Quantity	T	12½	7	10	48	4	8	-	5
		C	62½	60	30	-	20	52½	-	25
V	Speed	T	-	-	120	120	-	-	-	-
		C	-	320	200	240	210	180	-	-
	Quantity	T	12½	-	15	72	-	8	-	-
		C	112½	-	40	-	-	60	-	-
VI	Speed	T	-	-	-	-	-	-	-	-
		C	320	320	240	-	-	320	-	-
	Quantity	T	-	-	-	-	-	-	-	-
		C	60	50	40	36	-	50	-	-
VII	Speed	C	-	320	320	-	-	320	-	-
	Quantity	C	-	50	50	36	-	50	-	-
VIII	Speed	C	-	320	330	-	-	-	-	-
	Quantity	C	-	50	50	-	-	-	-	-

The details of the apportionment of time between spinning proper and other preliminary processes are given in Table 3. The preliminary processes

* Speed is in rounds per hour and Quantity is in hanks.
T = Takli C = Charkha

include such processes as cleaning of kapas, ginning and carding. This is to verify the calculation of quantity targets on the basis of the speed targets and the basis of apportioning of time for spinning and the preliminary processes. It is found that in the distribution of time for spinning and other preliminary processes for grade I, all the syllabi, except Bihar have allotted roughly 50%. For higher grades, the percentage is gradually reduced as more time is devoted to actual spinning. Bihar has allotted less time for the preliminary processes. It may be mentioned in this context that Bihar syllabus expects that an hour outside the school should be devoted to craft practice. In the case of Mysore the time for preliminary processes is not available for grades III and IV, as the time for spinning has come to exceed the total allotment of time for craft practice. Evidently the quantity targets have not been based on the speed targets.

Table 3
Apportioning of time for Spinning and Other Processes

Grades	Time (in hrs.)	Names of the Syllabuses							
		A	B	C	D	E	F	G	H
I	S*	200	200	160	128	73	128	-	128
	O.P	200	200	170	102	77	170	-	142
	P.P	50	50	51	44	51	50	-	52
II	S	200	-	200	165	65	172	120	128
	O.P	200	-	130	65	85	128	80	142
	P.P	50	-	39	28	56	43	40	52
III	S	300	280	232	160	90	342	-	195
	O.P	200	120	108	70	60	-	-	75
	P.P	40	30	33	30	40	-	-	28
IV	S	300	248	224	192	102	320	-	120
	O.P	200	152	216	58	48	-	-	150
	P.P	40	38	49	21	36	-	-	55

Quality Targets

The quality targets which are indicated in terms of count (fitness), strength and evenness of yarn have been presented in table 4. As the standard of quality would be improved in accordance with duration of practice.

* S = Time for spinning
O.P = Time for other processes
P.P = Percentage of total time devoted to preliminary processes

The targets are tending to increase from I grade to V grade. In the aspect of count, the indication of range targets, instead of specific targets is a notable feature. In general, the targets proposed in the various syllabi do not differ very widely.

Table 4

Quality Targets in Spinning

Grades		Names of Syllabuses							
		A	B	C	D	E	F	G	H
I	Count of Yarn	8-10	8-10	8	8-10	6-8	8-10	-	6-8
	Strength %	60	60	60	60	60	50	-	50
	Evenness %	60	60	60	70	60	50	-	50
II	Count of Yarn	10-12	10-12	10	10-12	8-10	10	6-10	8-10
	Strength %	60	60	60	60	60	50	60	60
	Evenness %	60	60	60	70	60	60	60	70
III	Count of Yarn	-	12-16	-	10-12	10-12	-	8-12	10-14
	Strength %	60	60	60	60-70	60	60	60	60
	Evenness %	70	70	70	80	65	70	60	70
IV	Count of Yarn	16-20	16-20	12-16	12-14	12-14	-	12-16	12-16
	Strength %	60	60	70	60-70	60	60	70	60
	Evenness %	80	80	70	80	70	80	70	80
V	Count of Yarn	-	-	-	-	-	16	12-20	-
	Strength %	-	-	-	-	-	-	70	-
	Evenness %	-	-	-	-	-	-	70	-

Weaving

That laying down targets is a difficult affair, is indicated by the fact that targets in weaving are given by five syllabi only. Hindustani Talimi Sangh has indicated targets for VI grade only. The targets are defined in terms of quantity and speed. In quantity targets Pamphlet No. 70 which devotes more time, has indicated highest targets (vide Table 5). The quantity data will be more accurate if they are in terms of length and breadth of cloth woven but Andhra and Pamphlet No. 70 have indicated the quantity only by length. Mysore has given only speed targets which are only in length. The speed targets of Bombay are given in range and they are the lowest and the targets of Pamphlet No. 70 are the highest. Four patterns of cloth that have been mentioned in connection with targets are, single warp, plain, single warp with design, double warp plain and double warp with design.

Table 5
Targets in Weaving

Grades		Names of the Syllabuses					
		A	B	C	D	Bom*	F
	Total time for craft (in hrs.)	720	400	550	330	-	300
VI	Speed (in hrs.)	1½ yd.	-	1 yd.	1 Sq. yd.	1 yd.	1 yd.
	Quantity	60 yds. D. W.+	24 x 27"	30 D. W.	18 D. W.	4x27" D. W.	-
VII	Speed	2½	2	2	½-1	1½	-
	Quantity	80 D. W. P. D.	30 D. W. 20 S. W.	36 D. W. P. D.	-	6x36"	-
VIII	Speed	1½, 3½	-	1	-	-	3/4-1 S. W.
	Quantity	40 S. W. 60 improved design	-	30 S. W. P. D. 30 D. W.	-	-	-

Targets for Woodwork

Data from the two syllabi, Pamphlet No. 70 and syllabus of Bihar which have given targets for wood work have been presented in Table 6. The targets are indicated in terms of number of articles to be prepared in the different grades. In the former case, the targets have been indicated from grade IV, but in the case of the latter, since the card board is carried on upto grade V, targets for wood work are given for grades VI and VII. The lists of models are almost the same in both these syllabi, except for a few models. The syllabus of Hindustani Talimi Sangh, instead of grading the models, has suggested the list of models under three groups, viz., articles of common household furniture and equipments, articles needed in the school and metal objects and garden tools. The targets for wood work which are in terms of quantity, are not quite meaningful since the time

* Bom. = Syllabus from Bombay.
D. W. = Double Warp; S. W. = Single Warp.
P. D. = Plain Design.

to be expanded for the preparation of each article would vary according to the size of the article and nature of process involved in the preparation.

Table 6
Targets of Production in Wood work *

Grades	Pamphlet No. 70	Bihar Syllabus
IV	Execution of at least seven models , two extra models.	Card Board Work
V	Execution of ten models , two extra models.	Card Board Work
VI	-	At least 15 models of six varieties from the list. 10 models of five varieties from the list.
VII	8 models in wood-work in list A and 5 models in list B and 6 models in metal work.	At least 25 models of six varieties from List A and 20 models of five varieties from list B.
VIII	List of 7 models of group A and of 7 models of group B.	

* The syllabi do not give the sizes of the models and so the specifications may not be very meaningful.

The salient points emerging out of the study of syllabi may be mentioned as follows:

i) Targets are laid down in relation to time available for craft practice.
ii) The number of working days of school could be increased in the higher grades.
iii) The quantity targets should be based on the time devoted to craft and speed targets.
iv) The quality targets of spinning are in terms of count, strength and evenness. Range targets are given in (count) quality of yarn.
v) The targets for weaving are in terms of quantity and speed.
vi) The targets for wood work are indicated only in terms of articles made.

CURRENT PRACTICES OF CRAFT TARGETS

A questionnaire was used to study current practices, in the fixing of targets, as followed in Basic schools. The results obtained are discussed in the present chapter. The questionnaire covered all the aspects of craft work. The questionnaire appears in Appendix I.

As already indicated, the questionnaire was sent to 10 senior Basic schools of each State and the practising schools attached to the Post Graduate Basic training colleges. The State Governments were requested to supply a list of 10 Basic schools for this purpose. Three State Governments did not send the list and so the questionnaire was sent only to the practising schools attached to the Basic training colleges of these States.

In all 130 questionnaires were sent out. Responses were received from 54 schools. As will be seen from table 7, the percentage of responses except in case of 4 States, was quite good. Some replies were received late and could not be included for calculation. The response from the practising schools of the training colleges has rather been poor. In this case also, about half a dozen replies came late and hence had to be left out.

Table 7

Distribution of the Questionnaire and Percentage of responses

States	Questionnaire issued to			Responses reed. from			Percentage of respo
	Basic schools	Practising schools	Total	Basic schls.	Practis. schls.	Total	
Andhra	10	1	11	7	-	7	64
Assam	-	1	1	-	-	-	-
Bihar	9	3	12	5	-	5	42
Bombay	10	4	14	2	1	3	21
Kerala	-	1	1	-	-	-	-
Madras	10	1	11	7	-	7	64
M.P.	10	2	12	7	-	7	58
Orissa	10	-	10	3	-	3	30
Panjab	10	7	17	10	1	11	65
Rajasthan	10	4	14	3	1	4	30
U.P.	-	1	1	-	1	1	100
W. Bengal	11	1	12	3	-	3	27
Total	100	30	130	50	4	54	42

The craft activities followed in these schools as main or Basic craft have been analysed and presented in table 8. In six schools, spinning does not lead to weaving as a craft from VI grade but continues upto

VIII grade. 4 schools have reported data only for senior Basic sections. Excepting for one school which is having papier machie, all the schools are following either one or the other of three crafts suggested by the syllabus of Hindustani Talimi Sangh.

There are some schools (No. 3 and 4) where more than one craft are practised. In the absence of particulars about the methods of organization of these crafts, we are not sure whether these can be considered as main crafts.

Table 8
The Main Craft followed in the Schools

Sl. No.	Main craft in I-V grades	Main craft in VI-VIII grades	No. of schools	Percentage of total
1.	Spinning	Spinning	6	11
2.	Spinning	Weaving	24	44
3.	Spinning	Weaving, wood-work, agriculture	6	11
4.	Spinning, cardboard	Wood work	8	15
5.	Paper, cardboard	Wood work	1	2
6.	-	Wood work	4	7
7.	Agriculture	Agriculture	4	7
8.	Papier mache	Papier Mache	1	1

Three kinds of practices are found in these schools regarding the authorities who are responsible for laying down targets. Some schools have been following targets proposed by the State Departments or those stated in the syllabuses; in some cases the targets are proposed by the Regional School Board or Local Board authorities; while in some cases targets are proposed by school staff council.

Table 9
Agencies for Proposing Targets

Category	Agencies proposing targets	Frequency	Percentage frequency
1.	State Departments	18	41
2.	Regional Local Board	5	11
3.	School council	21	48

Only 11 percent schools fall under the second category and 41 percent of schools follow the targets given in the syllabus of Departments and 48 percent have the targets set by the school council. The existence of

the latter category goes to explain that in some cases schools are given freedom to have their own targets even when the State Department prescribes targets in the syllabus.

Usually targets in craft are in term of end products either in quantity or quality or in both. Among the three familiar crafts, targets for spinning are rather well defined, in terms of quantity, quality and time (speed in the process), because the standard units in all these aspects have been under practice, and hence majority of the schools have indicated data in all three terms (vide table 10).

Table 10
Terms in which the Targets are Defined

Terms	No. of schools having such targets in				
	Spinning	Weaving	Wood work	Agriculture	Total
Quantity	29	15	5	8	57
Quality	31	10	2	-	43
Time	27	3	-	-	30

In the case of weaving, all the schools have stated the quantity targets which are indicated by square yards of cloth, but the quality target in weaving as well as in wood-work lacks definiteness and precission as it is expressed only in descriptive phrases, such as satisfactory, firne, fair, superb etc. In wood-work the quantity target also is vague, as many of the schools give the number of articles instead of detailed description of the articles. In agriculture, again, quantitative target is proposed in two kinds of production, such as vegetable and grain. In agriculture a few schools have indicated group targets i.e., the quantity of production for the whole class, instead of individual targets. These targets are defined in definite terms in respect of the three aspects of spinning. For other crafts targets are not indicated in such specific terms.

In certain States the practice of defining targets in terms of money value is also in vogue. Four categories of schools having such targets have been analysed and presented in Table 11. As shown in the table, in the schools of the first category money targets are proposed for each craft and in the last two categories these are proposed on general basis. Again, in the last category it is stated that the amount related to per capita net-income and in other categories this has not been clearly stated. But it is presumed that in the first two categories the amount would relate to per capita gross income and in the third category it would mean per capita net-income.

In the case of gross income target the targets of second category are very low and in the net income targets, the targets of third category seem to be very low especially for higher grades. A novel method of

assessing craft work is observed in one school of West Bengal where every craft job is precosted according to the market rate and each pupil's work is valued by coefficient method i.e., dividing the precosted labour charges by number of hours of the pupil. Thus each pupil's coefficient represents value of his labour in money value for one hour.

Table 11
Targets in Terms of Money Value

Grades	Crafts	Targets in termsof money in schools			
		1	2	3*	4*
I	Spinning	2.25		0.5	0.6
II	Spinning	5.75		0.15	0.19
III	Spinning	11.62		0.20	0.31
IV	Spinning	14.00		0.25	0.50
V	Spinning	30.37		0.30	1.00
VI	Spinning & Weav.	(56.25	20.00		
	Wood-work	(84.37		0.60	1.50
	Agriculture	(120.50			
VII	Spinning & Weav.	89.25)	25.00		2.00
	Wood-work	103.87)		0.70	
	Agriculture	128.50)			
VIII	Spinning & Weav.	(86.25	50.00		
	Wood-work	(129.50		0.75	3.00
	Agriculture	(173.50			

Spinning Craft

These schools represent all the varied aspects of organization in crafts such as - accommodation, equipment, teaching personnel, pupil-teacher ratio, supervision etc. The targets of these schools differe remarkably. Some schools have very low targets. Many of the schools have failed to achieve even 50% of the targets in crafts. The schools with low targets are not exception to this. With a view to analyse the factors that cause the failure, the study of achievements of these schools in relation to the targets and currentspractices regarding the targets is quite necessary.

Let us take up the analysis of data of achievement in relation to the target aimed by these schools in the craft. Out of 44 schools following this craft, 23 schools have furnished relevant data and in the case of the remaining schools, the data are incomplete. Data from 23 schools

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* ... under these columns relates to the income through

have been presented in appendix 4 and data regarding the total number of hours noted against each have been worked out on the basis of number of working days and the total daily allotment of time for craft. This has been worked out to find out the achievements of craft in relation to the time factor. A glance at the table would reveal that there is a wide gap between target and achievement of schools.

Let us examine each aspect of the data of these schools and compare the achievements with the targets. The quantity of production is indicated in terms of hanks of yarn but certain schools instead of following this unit, have indicated weight (lbs. of yarn), total number of thars or total number of yards. In table 12 where the quantity target and achievements have been presented, it can be seen that no two schools have similar targets. When considering the quantity targets in all the five grades, the targets of No. 23 (10, 13, 65, 67, 102) are the highest, while of No. 14 (12, 12, 30. 50. 65) are the lowest. No targets have been proposed by some schools for grades I and II. Coming to the achievement, it is negligible for grades I and II, except in No. 5, 11 and 20 and it is almost less than 50% of target in respect of other grades. One schools (No. 11) has reached the highest degree of achievement in all the grades. It is interesting to note in case of No. 6 and 13, that the data for achievement in higher grades is less than that in lower grades.

Table 12

Targets of Achievement in Quantitative Aspect of Spinning

(Per capita production in hanks)

Sl. No.	I grade		II grade		III grade		IV grade		V grade	
	T*	A*	T	A	T	A	T.	A	T	A
1.	5	1.2	12	1.3	30	2.1	40	2.1	55	4.1
2.	-	-	12	-	25	1	30	1	40	1.5
3.										
4.										
5.	19	16	29	25	65	55	68	60	71	62
6.	11.5	2.5	19	3.5	65	8	67	12	85	10
7.	9	0.75	22.5	2	22	2	45	4	54	5.5
8.	5	1.25	10	5	20	10	40	30	60	30
9.										
10.	-	-	-	-	20	5	40	10	60	14
11.	12.5	12.5	40	25	65	30	70	50	75	70
12.	-	-	20	5	45	12	60	15	-	-
13.	10	1	12	6	40	9	46	6	55	43
14.	-	-	-	-	3	2	5	5	-	-
15.										
16.	-	-	5	2.5	9	4	28	14	44	24
17.	8	2	16	3	30	5	36	12	44	12
18.										
19.	5	0.5	12	0.5	30	2	40	3	55	10
20.	-	-	20	20	30	30	40	40	55	50
21.	-	-	4	1.5	10	4.5	20	9.5		
22.	10	3	12	3.5	35	4	40	4.5	55	
23.	10	4	13	6	65	27	68	35	102	

* T= Targets A= Achievement

Takli Spinning

The performanceof skill with in certain time limit is another aspect of appraisal of the craft work. The spinning skill is assessed by the performance in an hour in terms of the number of rounds of yarn. This can be regarded as targets in terms of speed. Speed data of 'takli' spinning is given in table 13. Spinning on takli is commonly practised in all the five grades but in the case of other schools target data are shown upto III or IV grade. That probably means that the skill of spinning on takli is not given importance after that stage, since the skill of spinning on charkha would be continued. Speed targets is not proposed by 3 schools for grades I and II, by 3 schools for grade I. The targets are rather high in No. 5 and 8 and are too low in No. 14, 15 and 16. As regards achievements, No. 5 and 8 show fairly good achievement. But in the case of No. 17 there seems to be sudden nump from 60 rounds to 120 rounds.

Table 13
Targets and Achievement of Takli Spinning
(Rounds or Tars per hour)

Sl. No.	I grade		II grade		III grade		IV grade		V grade	
	T*	A*	T	A	T	A	T	A	T	A
1.	20	5	50	12	80	28	100	60	120	75
2.										
3.	20	-	40	-	80	20	100	40	120	60
4.	30	10	45	40	60	50	70	-	80	-
5.	60	50	80	60	100	80	120	100	160	120
6.	40	30	80	45	80	55	80	-	100	-
7.	40	30	80	40	80	50	-	-	-	-
8.	20	5	40	30	60	60	100	80	200	100
9.	-	-	-	-	80	40	120	60	160	80
10.	-	-	-	40	-	-	-	-	-	-
11.	40	45	-	-	-	-	-	-	-	-
12.	-	-	60	-	-	-	-	-	-	-
13.	40	-	80	15	80	23	-	-	-	-
14.	-	-	-	-	26	25	40	36	60	50
15.	10	9	20	16	35	30	45	42	50	48
16.	-	-	15	8	25	12	-	-	-	-
17.	40	40	60	60	120	120	-	-	-	-
18.	20-30	-	30-40	-	60	-	-	-	-	-
19.	20	10	30	20	-	-	-	-	-	-
20.	-	-	30	30	35	35	40	40	60	60
21.										
22.	40	20	40	25	-	-	-	-	-	-
23.	40	30	60	42	-	-	-	-	-	-

* T == Target A = Achievement

Charkha Spinning

The data for speed targets of charkha spinning are given at different stage of different schools (vide table 14). In five schools the targets start from II grade, in 7 schools from III grade and in others from IV grade. The highest targets are found in No. 5, 12, 10 and 16 and the lowest in No. s 20 and 21. Though the targets are proposed from earlier grades, in the case of schools No. 5, 6, 10, and 16 the achievement data are given for later grades only, and it would mean that the charkha is introduced only in these grades.

Table 14
Targets of Achievement of Charkha Spinning
(rounds per hour)

Sl. No.	II grade		III grade		IV grade		V grade	
	T*	A*	T	A	T	A	T	A
1.	-	-	100	-	120	-	200	85
2.	-	-	-	-	-	-	-	-
3.	-	-	-	-	-	-	-	-
4.	-	-	-	-	130	80	200	160
5.	-	-	180	160	240	200	320	240
6.	120	-	160	100	200	120	200	130
7.	-	-	-	-	120	60	160	80
8.	-	-	80	40	160	100	200	160
9.	-	-	-	-	-	-	-	-
10.	120	-	160	120	200	200	320	200
11.	120	120	160	160	160	160	200	200
12.	-	-	200	-	350	-	-	-
13.	120	-	160	-	200	15	200	110
14.	-	-	-	-	-	-	-	-
15.	-	-	-	-	-	-	-	-
16.	120	-	160	-	200	30	320	60
17.	60	60	120	120	200	180	200	200
18.	-	-	-	-	-	100		240
19.	-	-	80	50	120	70	200	160
20.	-	-	-	-	60	60	100	100
21.	-	-	-	-	100	94	120	99
22.	-	-	100	-	200	80	200	120
23.	-	-	160	120	180	140	210	200

* T = Target A = Achievement

Quality

The quality of yarn is defined in terms of count, strength and evenness. No school, excepting two indicated data for evenness. For this reasion, it was not included in Table 15. Even for these two aspects only three schools have indicated targets for both and others have supplied data only for count. We find in thisiquality aspect, range targets instead of specific targets. Here two schools have not indicated targets for grades I & II. Not much difference is indicated in the various schools with reference to both these targets, except in number 8 and 9. The targets in strength of number 3 has gone to maximum for grade V; the school has, however, not furnished data of achievement. Except for numbers 1, and 12, the achievement of quality is fair and in the case of No. 2, 4, 5, 6 it has almost reached upto the targets.

Table 15
Targets of Achievement in Qualitative Aspects of Spinning

Sl. No.		I Grade		II Grade		III Grade		IV Grade		V Grade	
		Ct.	St.	Ct.	St.	Ct.	St.	Ct.	St.	Ct.	St.
1.	T	8	60	10	60	12	60	12.16	70	16.20	80
	A	4-5	40	5-6	50	8	50	10	55	12	60
2.	T	8	-	12	-	14	-	16	-	16	-
	A	8	-	10	-	16	-	16	-	16	-
3.	T	10	60	10	50	12	60	12-16	60	16-20	100
	A	10	-	10	-	12	-	14	-	14	-
4.	T	10	-	10	-	16	-	16	-	20	-
	A	8	-	10	-	10	-	16	-	20	-
5.	T	8-12	60	10-12	60	12-16	70	16-20	70	16-20	70
	A	-	-	10-15	30-40	12-16	35-45	16-20	50-60	16-20	45
6.	T	8-12	-	10-12	-	12-16	-	16-20	-	16-20	-
	A	9-12	-	10-12	-	12-16	-	16-20	-	16-20	-
7.	T	10	-	10-12	-	12-15	-	16-20	-	16-20	-
	A	9	-	11	-	10	-	8	-	13	-
8.	T	-	-	-	-	9-10	-	11-12	-	13-14	-
	A	-	-	-	-	7	-	9	-	12-14	-
9.	T	-	-	-	-	8-9	-	9-10	-	11-12	-
	A	-	-	-	-	9	-	10	-	11	-
10.	T	8-10	-	10-12	-	12-16	-	16-20	-	16-20	-
	A	13	-	14	-	15	-	18	-	17	-
11.	T	5	-	7	-	10	-	10	-	16	-
	A	5	-	10	-	10	0	12	-	16	-
12	T	8	-	10	-	12	-	16	-	20	-
	A	8	-	8	-	8	-	10	-	10	-

Achievement with Reference to Time

From the achievement data of schools we observe that there is a wide gap between the minimum and maximum for all the grades in both the aspects of quantity and speed. (Vide Table No. 16). One of the factors responsible for the variation in output in craft is that of time. The total time devoted to craft work differs from school to school. The variation is caused by the differences in two variables, the number of school days and total daily allotment of time for craft work. With a view to study the achievements of these schools in relation to the time factor, let us examine the data of two pairs of schools (Sl. No. 8 & 9 and No. 11 & 16), which are having almost equal allotment of time in all grades (vide appendix 4). In these two pairs, the difference in the achievement of quantity and speed is so significant as to explain that the time may not be only factor which would bring on the disparity of achievements in these schools. Even in this, one point that has been noticed in Bihar syllabus that pupils are insisted to have one hour of craft practice outside the school. Consequently, the extra time devoted to craft would result in additional output. So only through personal observation and on the spot study it would be possible to investigate various factors that would affect the craft achievements of Basic schools.

Table 16
Summary of the Achievement in Spinning

Grades	Quantity in Hanks	Speed in Takli in rounds	Speed in Charkha in rounds
I	3/4 - 16	5 - 50	-
II	1 - 25	12 - 60	40 - 129
III	1 - 55	20 - 80	60 - 160
IV	1 - 60	36 - 100	80 - 200
V	$1\frac{1}{2}$ - 62	42 - 120	100 - 240

However, an attempt has been made to study, to the extent possible through this questionnaires, how the factors other than time would influence achievement in the craft. Three such factors have been analysed and presented in Table 17. The pupil-teacher ratio can be considered as one of the influencing factors in the craft programme as low ratio would facilitate individual attention resulting in better out put. It may be seen from column 3 that in four schools the range of ratio is 10-15 and for nine schools it is 10-25. But no inference could be drawn due to the fact that in case of certain schools it has been pointed out that the posts of teachers are kept vacant without substitute and the period of vacancy is not mentioned.

The next factor is the craft qualification of teachers as it is recognised that expert guidance and direct demonstration of teachers will go a long way in the improvement of craft-work. As regards craft qualification,

the teachers are classified into three categories according to the period of training, i.e. teachers with full term training, teachers with short-term training course and teachers without any training in Basic education. Besides this, certain schools, have on the staff craft teachers who are specially qualified in craft only. The number of teachers in each category is noted in column 4 of Table 17 but many of the schools have furnished incomplete data regarding qualification of teaching personnel. Different States use different nomenclature for the short-term training course. Two such terms, 'self-Basic trained', and 'Retrained in Basic education' have been noticed and they have been classified. The fact that there is close relationship between craft qualifications of the teaching personnel and achievement in craft is proved by data of school No. 5 where out of 8 teachers six are reported as specialists in weaving and the school has reached the highest achievement in spinning and weaving.

Table 17
Factors Influencing the Craft Progress

Sl. No.	Pupil Teacher			Teacher and craft experience				Exhibitions	Museum
	Roll No. of pupils.	Teacher	Pupil Teacher ratio	Regular Basic Trained	Short Term	Untrained	Craft Specialist		
1	481	17	28	16	-	-	1	1	1
2	364	15	24	3	10	-	2	1	1
3	126	12	10	10	4	-	-	1	1
4	177	9	19	7	-	1	1	1	-
5	239	8	30	8	-	-	-	1	1
6	213	14	15	5	6	-	3	1	-
7	282	11	26	7	2	1	1	-	-
8	443	14	32	4	9	-	1	1	-
9	195	8	24	4	3	-	1	1	1
10	391	16	24	9	6	-	1	1	-
11	405	16	25	15	-	-	1	1	-
12	882	32	40	11	-	5	-	-	-
13	139	11	13	11	-	-	-	1	-
14	594	18	33	18	-	2	-	1	-
15	655	16	41	14	-	1	1	1	1
16	623	15	41	14	-	-	1	1	-
17	290	9	32	9	-	-	-	1	1
18	117	9	13	9	-	-	-	1	-
19	131	6	21	6	-	-	-	-	1
20	172	8	21	5	2	-	1	-	1
21	496	16	31	16	-	-	-	1	-
22	264	13	20	13	-	-	-	1	-
23	202	9	22	9	-	-	-	1	-

The third factor is the provision of certain facilities in the school which would work as stimulants of craft achievement, especially for children, like the display of craft produce either in an exhibition or in a museum, award of prizes for the craft produce etc. Most of the schools have provision for exhibition, all the particulars have not been supplied regarding museums and prize awards, such as the size and equipment of museum and thenature of prize award. It is reported that in 3 schools the amount of sale proceeds of schools have been utilised for the provision of mid-day meals for school children. In the absence of such a detailed information conclusion would not be warranted.

As regards the number of school days, the schools have been classified into seven categories (vide Table 18). A large number of schools fall under second and fourth categories. The Basic schools of Bihar and Orissa States work more than 240 days. The range of working days for the majority of schools is 221-230.

Table 18
Distribution of Schools According to the number of School Days

Category	The Range of School Days	No. of Schools
I	200 days and less	2
II	201-210 days	10
III	211-220 days	5
IV	221-230 days	19
V	231-240 days	2
VI	241-250 days	3
VII	251 days and more	6

The Second aspect of the time factor is the daily allotment of time for craft work. This allotment varies from school to school (vide Table 19). A common feature in this is that the allotment is increasing from lower to higher grades. A few schools are exception to this as the time allotment of these schools is on the increase from grade I to V and on decrease from VI grade to VIII grade. From the dispersal of data, we can classify three categories, the first category includes I and II grades the second includes III, IV grades and the last category includes V to VIII grades. The range of allotment for first, second and third categories may be taken as $\frac{1}{2}$ - 1 hour, 1 - $1\frac{1}{2}$ hours and $1\frac{1}{2}$ - 2 hours respectively.

Weaving

Let us pass on to the data in weaving which is the next phase to spinning. Out of 28 schools reported as having this craft, 14 schools have supplied data in weaving targets which have been presented in appendix 5.

In this 7 schools have supplied the data in terms of quantity, 2 schools have also indicated, along with quantity, speed targets and other 2 schools have stated targets in terms of money value. It is rather strange that in money target given by No. 5, target of VIII grade is less than that of VII grade. One school has stated targets as self-sufficiency which is too vague to be interpreted.

Table 19
Allotment of Time for Craft Work in Schools

Grade	Number of Schools having Daily Allotment					
	½ Hr.	3/4 Hr.	1 Hr.	1½ Hrs	2 Hrs	More than 2 Hrs.
I	6	3	25	2	6	-
II	6	3	25	2	6	-
III	5	2	21	6	8	-
IV	3	4	20	7	8	-
V	-	9	14	6	11	2
VI	-	6	15	5	14	2
VII	-	7	11	8	14	2
VIII	-	7	14	8	11	2

Further, it is doubtful whether the money value relates to the gross income or net income of craft production. In quantity targets, 4 schools have stated simply the number of yards, but the width or the warp of cloth is not mentioned. The quantity target ranges from 1 towel of 22" x 54" to 60 yards for VI grade, 12' x 27" to 60 yards for VII grade and $10\frac{1}{2}$' x 30" to 60 yards for VIII grade. In qualitative aspect, no school has stated target in specific terms, except No. 2 which has indicated the warp of the cloth (double warp). Two schools have given speed target. In the absence of specific data about the qualitative aspect, it is rather difficult to compare the achievements of the schools merely on the basis of quantity of production.

Wood Work

Out of 19 schools having wood work, 4 schools have shown target which is in term of quantity i.e., the number of articles to be produced (vide Appendix 6). This quantity target, without giving size and nature of processes involved in the production of these articles, is not quite meaningful. A school has indicated targets in terms of cubic ft. of production. In the absence of specific data about the articles of production, it is difficult to discuss the achievements of the schools.

Proforma in Weaving and Wood Work

It is found from the analysis of the syllabi the States and from the study of the current practices followed in the Basic schools, that targets for weaving and wood-work are indicated only in terms of quantity. In assessing the quantity of production the quality of the produce, the process involved in the preparation and the time taken for preparation should always be taken into account. Moreover, it is clearly seen that Basic schools are preparing different varieties of cloth such as, Asan, Niwar, Towel, Carpet and cloth with so many designs. Targets proposed by syllabi have not included these items. Another point that should be considered in connection with these crafts, especially in weaving is that much depends on the quality of the raw material, the yarn. So in fixing targets in weaving and wood-work, it was felt that information on these points is very necessary. As all these details could not be collected through the questionnaire issued to the Basic schools a proforma for eliciting information on these points was prepared (see Appendix 3).

The information collected through this proforma pertains to the name of the article, size of the article, quality of raw material, the grade by which it has been prepared, the time taken to prepare the article. A point which is required in the case of weaving is the time taken for the process of weaving. This is to find out the speed attainment of pupils in the weaving process. Along with proforma, instructions were given to the respondents regarding each item of the proforma, the pertinent information to be given and explanation of the terms used in the proforma. The respondents were requested to add the details of the articles prepared in their schools, if they were not found in the list. The list includes 4 types of cloth, which are found from the analysis of syllabi of States and 32 items of wood-work which are taken from Pamphlet No. 70.

The proforma was issued to 65 Basic schools following these crafts, including the practising schools attached to the Post-Basic Training Colleges, 24 schools for weaving and 15 schools for wood work replied to the proforma. The response in the case of wood work is rather low, because there are only a few Basic schools having the craft.

Despite the clear instructions regarding the particulars, it is observed that data supplied by most of the schools are incomplete. For example, in weaving the size of cloth is given in length (yards) by three schools, instead of length and breadth and the processes involved in the preparation is stated as twisted by 2 schools. In quality of raw material, the strength aspect is not indicated by 12 schools and the count is omitted by 6 schools. The time taken for weaving is not given by 8 schools. One schools has stated the total quantity of cloth prepared in inches and the total time taken in hours for the preparation of all the four types of cloth. Another school has indicated the time taken for the preparation of cloth in months.

In wood-work the measurement or size of the article is not indicated clearly by 3 schools. Regarding the processes involved in the preparation, the nature of jointing, the type of finishing, sand paper finishing, varnishing, (colouring) are very relevant points, but schools have not mentioned about these processes. 3 schools have indicated the time taken in terms of periods instead of hours.

As the teachers of Basic schools are not familiar with this sort of pro-forma they were not able to furnish data specifically as required. This also indicates that the study through such proforma has its limitations. However, the responses through proforma were helpful to find out the various kinds of articles prepared by pupils of Basic schools grade-wise and to study the factors that should be considered in the fixing of targets in weaving and wood-work.

The articles prepared by these schools are listed out grade wise and given in Table 20 for weaving and 21 for wood-work. As will be seen from the table the article mentioned for grade VIII in one school is taken for lower grade VI in another school. This would indicate that the grading of articles is not made on any basis.

As time factor is one of the deciding factors in the fixing of quantity targets in crafts, the data furnished by these schools in these two crafts were analysed and common articles from these schools were selected. 4 types of cloth and 12 articles of wood-work are found in common and they are presented in Appendix 7 and 8 with a view to study the factors that cause the difference of time taken in the preparation of articles.

As will be seen from Appendix 7 in the preparation of Asan, the time taken for weaving process only differs greatly. The time given by No. 4 (20 hours) may refer to the total time taken for all the processes instead of the weaving process only. Excluding this the range of time is 1 hour - 12 hours which is rather a wide range.

In the second item, Nivar, the length of the article differs from school to school. In order to control the variable factor of quantity, the time has been worked out for the unit of 100 feet. This converted time is given in the last column. But the time for the preparation of 100 feet ranges from $7\frac{1}{2}$ - 37 hours.

For the third item (towel) the time for the preparation of the same size of article, the two school No. 7 and 9 take 3 hours and 16 hours respectively. But the increase of time in the school No. 9 might be due to other factors, viz., the quality of the raw material (20 counts) and the skill of the pupil (V grade) who would be in the initial stage of weaving. On the contrary in No. 7 the raw material (thread) is of 12 counts which is rough and the pupil is from grade VIII. Out of finer count of yarn and by a pupil of beginning stage, weaving naturally would lead to more time.

Table 20

Variety of Cloth Woven at Different Grades of The Sample Schools

V Grade	VI Grade	VII Grade	VIII Grade
Asan	Towel	Dhoti (D. Warp)	Dhoti (D. Warp)
	Shirting	Shirting (D. Warp)	Coating (D. Warp)
Niwar	(Double Warp)	Table cloth	Carpet (D. Warp)
	Carpet	(D, Warp)	
	Belts	Bed Sheet (S. Warp)	

Table 21

Articles of Wood Work Prepared In Different Grades

V Grade	VI Grade	VII Grade	VIII Grade
Propeller	Wall rack	Stool	Cot
Pot Stand	Book Stand	Table	Key Board
Writing Desk	Wooden tray	clock frame	Chair with cane work
Spoon	Sliding box	Chair	Office Tray
Ruler	Blotter	Box	Dust bin
Simple pig	Pin cushion	Photo frame	table
W. Sandles	Plank for preparing rotti	Easy chair	Sliding box
Mallet	Sign board	Churner	Book stand
Lining instrument	-	Ink Stand	Black board
Carding bow	Spoon stand	T. Square	Black board stand
Takli Box	Parita (Charkha)	Takli Box	Baby chair
Shoes Board	Liver rod	Spap stand	Small loom
Shoes Pressing Band	Paper Weight	Ping Pong Bat	Box
Foot rule		Book shelf	Charkha
Ateran (Takli)		Paper Weight	

In the preparation of shirting cloth, two schools No. 4 and 5 for the same measurement of cloth ($7\frac{1}{2}$ Sq. Yds.) have taken 40 hours and 24 hours. Here also the former pupil who has taken more time belonged to lower grade (VIgrade) than the latter who was from VII grade. The increase of time, in the case of No. 4 is also due to the factor, quality of raw-material which is finer yarn (14-16 counts) than the other (8-12 counts).

The Articles of Wood Work

As seen from Appendix 8, in the preparation of article (spoon) the time is ranging from 4 hours to 8 hours and in the case of ruler, No.4 has taken 10 hours which is rather too high. Leaving this school, the range of time for this article is 2-5 hours. The time for preparation of Simple Peg, is bound to be uniform in all the three schools but there is a wide range of 2 - 8 hours for the article, Sandles (wooden) and 4 -16 hours for Mallet. Again we find there is uniformity in the time for preparing Silver Pressing Board among three schools and wide range 8 - 20 hours for preparing sliding box. As it is clear from the analysis of weaving the factors that affect the time for the execution of articles are the size of article, the quality of raw material and age level (grade) of pupil. Since we find from the data of these schools that data on these are not comparable, we cannot draw any conclusions from the study. But one point is quite clear that in the fixing up time targets, the factors like the size of the article, quality of raw material and the (grade) age level of worker (pupil) should be taken into consideration.

Summary

In the analysis of current practices of these schools, the following points are taken for consideration.

1) Spinning and weaving, wood-work and agriculture are common prevalent crafts.

2) Targets in craft is proposed at three levels, State, Region and School.

3) Target in craft is defined in terms of quantity, quality of production and time taken to perform certain process (speed). In a few States target is proposed in terms of money value.

4) In spinning the achievement in quantity is less than 50% of targets of all grades and it is still less for grades I and II.

5) Speed targets in takli spinning are aimed at in all grades and charkha spinning is introduced at III grade.

6) Quantitative targets in spinning are given in terms of count in all schools and count and strength in certain cases. The schools have range targets in this aspect instead of specific targets. The achievement in relation to targets is quite fair.

7) The contribution of time factor to the craft out put is not evident in these schools.

8) The contribution of other factors such as, pupil-teacher ratio, craft qualification of teaching personnel, the incentives in the form of display in museums, exhibitions, prize award etc., could not be studied further.

9) The model range for number of working days is 221 - 230.

10) The practice of daily allotment of time is such as $\frac{1}{2}$ - 1 hour for I and II grades, 1 - $1\frac{1}{2}$ hours for III and IV grades and $1\frac{1}{2}$ - 2 hours for higher grades.

11) In weaving, quantitative data is indicated as Sq. yards of cloth and nature of warp is shown in quality aspect.

12) In wood-work, targets and achievements are stated only in quantitative terms. However, in these cases the targets do not give all the required details and hence lack in specificity.

RECOMMENDED PRACTICES

The opinions about targets in crafts are so diversified and the existing practices in craft programmes in Basic schools are so varied that it was felt that consolidated opinions of experts would be helpful in clarifying certain points connected with this problem. The points on which the opinions of experts were invited relate to the objectives of laying down targets, the terms of targets, the level of authority for proposing the targets, the speed targets in spinning and weaving, the terms in which targets in wood-work are to be defined. All these points which may be regarded as significant factors of this problem were selected and were referred to experts. A questionnaire referring to the eight points was prepared and sent out to experts (vide appendix 2).

The experts to whom this questionnaire was issued may be classified in four categories : educationists who have been associated with Basic education for a long period, Principals of Post-Graduate Basic training colleges, craft experts of these colleges and supervisors of Basic schools in the States. The details of the sample may be seen from Table.

Table 22
The Sample to Which the Questionnaire Was Sent and the Responses Received

Sl. No.	Category of Respondents	No. issued	No. received
I	Educationists	10	4
II	Principals of Training Colleges	30	9
III	Craft experts of Training colleges	30	12
IV	Supervisors of Basic schools	35	9
	Total	85	34

In all 85 questionnaires were sent but 34 responses which were received in time were analysed. The number of responses from Principals of training colleges and from supervisors is rather low, though more of these were received much late and hence they were not included.

There has been a controversy over the usefulness of laying down of targets. Some educationists think that the fixing of targets would lead to lowering of academic standards and regimentation of production undermining the artistic values. This point was included in the questionnaire. The analysis of responses shows that the majority of experts (31) are of the opinion that this would have positive effect of leading to the improvement of pupils' skill and efficiency of teaching. Out of 34 only 3 persons have stated that this would have adverse effect on educational achievement.

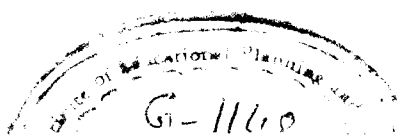

Table 23

Opinions About Objectives Of Craft Targets

Sl. No.	Objectives	Frequency of Responses
1.	Improvement of pupils' skills and efficiency of teaching.	31
2.	Over emphasis on production at the cost of educational outcome.	3
3.	Limitation of the enthusiasm of teachers and pupils.	-
4.	Any other.	-

Targets in crafts are defined in a variety of ways, but are usually expressed in terms of quantity, quality and money value or a combination of these. Expression of targets in such terms may not be very precise and fool-proof as there are no standard units to measure the achievements in crafts in these terms. However, this aspect was included in the questionnaire in order to study the reaction of the experts. As will be seen from Table 23 all the experts have given preference for the qualitative aspect to quantitative aspect. Some have also expressed their opinions in favour of targets in money value. Accepting the targets in terms of money value may lead to some difficulties, as it is always relative to the market prices.

Table 24

Opinions About the Terms In Which Targets Should Be Fixed

Sl. No.	Targets in terms of	No. of Responses
1.	Quantity	-
2.	Quality	25
3.	Money Value	9

Regarding the authority responsible for laying down targets, targets may be proposed at three levels, viz., the State Department, Regional School Board and the School Staff Council. The experts seem to be more in favour of the latter two categories. As shown in table, 16 experts have favoured the Regional School Board and 13 the School Staff Council as against 5, who think that the targets should be prescribed by the State Department. This goes on to show that the trend is in favour of decentralization as a policy in the organisation of craft programme.

Table 25

Opinion About The Agency Which Should Propose The Targets

Sl. No.	Categories	No. of Responses
1.	State	5
2.	Region or District	16
3.	School or Local	13

In laying down targets for Basic schools some persons are of the opinion that the children of lower grades should not be harassed with this imposition. The Assessment Committee have recommended that children of I and II grades should be free from this, as the responsibility of paying attention to productivity at this stage should be given to the teachers rather than to the pupils (13, p. 41). The experts also have endorsed this view. As shown in the table the majority of the responses (20) have preferred the laying down targets from grade III.

Table 26

Opinion About The Grades For Which Targets Are To Be Prescribed

Sl. No.	Categories	No. of Responses
1.	I - VIII Grades	6
2.	II - VIII Grades	-
3.	III - VIII Grades	20
4.	IV or Higher grades	3

In laying down targets, time is one of the deciding factors as the quantity of production and development of skill would be in direct proportion to the amount of time devoted to craft practice. This point was referred to experts in order to find out the desirable time allotment for craft practice. We find three kinds of practices in the daily working hours of Basic schools of the States, where there is shift system, the schools work for three hours, but generally the daily working hours of the schools would be $4\frac{1}{2}$ hours to 5 hours. Usually two or more hours are allotted for craft work every day. This has evoked much criticism, and it is argued that allotting more than two hours would affect the health of children and would result in the deterioration of academic standards. The responses of experts on this question are shown in Table 27. The responses can be grouped according to grades in three categories, viz. I and II grades, III and IV grades, and V to VIII grades. As will be clear from the Table, the opinion regarding allotment

of time for the first category (I and II) is ranging from $\frac{1}{2}$ - $1\frac{1}{2}$ hours, for the second (III and IV), 3/4 - $1\frac{1}{2}$ hours, for the third category 1 - 2 hours.

Table 27

Opinion Of Experts On Daily Allotment Of Time For Craft

Grades	Number of views on the daily allotment of time					
	$\frac{1}{2}$ Hr.	3/4 Hr.	1 Hr.	$1\frac{1}{2}$ Hrs.	2 Hrs.	More than 2 Hrs.
I and II	6	8	7	9	1	-
III and IV	2	7	6	10	6	-
V to VIII	-	1	8	7	11	4

Quantity of production is an important factor in fixing targets. It is considered on the basis of two factors, the number of hours devoted to craft and the attainment of skill or special in performance. In spinning the latter one related to the attainment of skill as takli and charkha. Targets on takli spinning are given in many of the syllabii for the first three grades. From the analysis of the syllabii of states, three types of speed targets, such as 25, 30, 40; 30, 40, 60 and 60, 80 have been selected for reference. As seen from Table, 18 experts out of 31 have favoured the first type of speed targets. The number of responses for the second and third types of targets are six and seven respectively.

Table 28

Opinion About Speed Targets Of Takli Spinning

Categories	Speed targets for I, II, III grades	No. of Responses
1.	25, 30, 50	18
2.	30, 50, 60	6
3.	40, 60, 80	7

In accordance with the syllabii of Hindustani Talimi Sangh and Pamphlet No. 70, the Charkha spinning is introduced in grade II, hence the speed targets on charkha spinning are mentioned from II grade to V grade. Here also, three types of targets grading from 60 to 200, from 80 to240 and from 100 to 320 are taken out from the analysis of syllabii. As seen from table, 16 are in favour of the first type while 15 are towards the second and four are for the third. This goes to show that the opinions of the experts are divided between the first and second type of targets with a narrow margin of two. This would suggest that these two types of targets could be merged

to form range targets for these grades such as 60-80 for grade II, 100-120 for grade III, 160-200 for grade IV and 200-240 for grade V.

Table 29

Opinion About Targets Of Charkha Spinning

Categories	Speed target for II, III, IV and V	No. of Responses
1.	60, 100, 160, 200	16
2.	80, 120, 200, 240	14
3.	100, 160, 220, 320	4

The targets for weaving are generally indicated in terms of quantity based on the analysis of targets suggested by the syllabii of States, three different targets were selected and were referred to the experts. As weaving is introduced in grade VI, the targets in weaving are given from grade VI. Two patterns of cloth included in the targets are, double warp and single warp, the former is taken up in all grades while the latter is introduced in grade VIII. Nineteen experts are in favour of the first category and only eight are towards the second. Among 19 who preferred the first, four experts remarked that these targets should be further lowered. The fact that the third type of targets does not get any response indicates that the targets are too high.

Table 30

Opinion About Targets In Weaving

Category	Target in Weaving for VI, VII and VIII			No. of Responses
	D.W	D.W.	S.W. + D.W.	
1.	12	50	12 + 33	19
2.	16	60	20 + 40	8
3.	24	80	40 + 60	-

The targets for wood-work indicated by Pamphlet No. 70 and syllabus of Bihar are in terms of quantity, i.e., the number of articles to be prepared by pupils of different grades. As the number of articles, without any mention of size, processes and design would not convey any meaning the experts were requested to suggest the terms in which targets in the craft should be defined. In practice the targets for other crafts are indicated in terms of four aspects . Hence these four aspects are included

in the Table 31. 19 members, a sizable number, are of opinion that the targets should be in terms of quality, five are in favour of quantity and four

Table 31

Opinion About Targets In Wood Work

Terms by which the target to be started	No. of Responses
1. Quantity target.	5
2. Speed target.	1
3. Income target.	4
4. Quality.	19

are towards the income targets, only one member is in favour of speed target and the least response indicates the difficulty of the problem of specifying speed targets in wood-work.

TENTATIVE TARGETS

The problem of evolving targets for craft work has been studied on the basis of the analysis of source materials and that has been discussed in the previous chapters. This chapter presents the findings of the study and the proposed tentative targets for the crafts of spinning, weaving and wood work.

From the study of these source materials viz., literature on Basic education, syllabi of Basic schools of the various States, views of teachers and experts through questionnaires and discussion, it was possible to find out not only the current practices but also the objectives and general principles for having targets for crafts. The data from these various sources obviously have limited reliability.

It is from the analysis of the achievement in crafts of the schools we find that most of the schools have failed to reach the standard of attainment indicated by the targets for the crafts. This may be due to either lack of facilities in the organisation of craft programme or due to targets being too high, or both.

As for the lack of organised facilities it is noticed that many schools have reported that they lack facilities for organizing the craft programme. In response to the Item 6 of Section C, of questionnaire A, the following points were made out regarding facilities of organisation. 7 schools were wanting in accommodation, 5 schools were not getting timely supply of raw-material, 6 schools were not supplied with adequate craft equipments and 9 schools were running without adequate trained personnel. Provision of these facilities does result in the better achievement in certain schools.

Regarding the second point, viz., the targets being too high, the opinion of teachers were invited on the standard of the current targets (vide Item 7 of Section B of questionnaire A). It was seen that 16 out of 45 school teachers pointed out that the targets were too high. The experts to whom the quantity targets in weaving were referred to (vide Item 7 of questionnaire B) indicated that the quantity targets needed reduction (vide Table 30). Moreover in the study of syllabi of the various States, it was found that the current quantity targets are, in certain aspects, too ambitious and do not take into consideration the time factor.

With a view to avoid the defects that have been detected in the current targets for crafts the proposal of tentative targets should be based on certain general principles. Therefore, the formulation of a list of criteria for fixing of targets which would serve as guiding principles is felt necessary. The first and foremost point, that should be kept in view, in formulating criteria is the objectives of craft in Basic education.

The objectives of craft in Basic education can be enumerated as follows:

i) To equip the pupil with a necessary skill to enable him to produce useful articles to meet his requirements.

ii) To offer opportunities for acquiring correlated knowledge in different subjects.

iii) To stimulate and foster the sense of dignity of labour (adapted from Bihar syllabus).

This is summed up in the words of Gandhi ji as 'harmonious development of personality, i.e., developing mind, body and soul of child". (6, p. 95). The objectives of craft, which have been educational significance could be realised only by developing efficiency through practice. Productivity in economic terms should be considered as an important means of measuring craft efficiency. In other words, the achievement of pupils in crafts has to be measured in terms of the produce.

Besides the objectives of crafts, the following criteria may also be kept in view while formulating targets for craft:

1) The targets should be in consonance with the objectives of craft in Basic education.

2) The targets should be involved keeping in view age level of pupils, i.e., there should be graded increasein the difficulty of the processes involved in crafts.

3) The targets should be based on the time factor available for craft practice, i.e., the number of school days and the time devoted daily for practice.

4) As the efficiency of craft practice presupposes certain facilities of organization, the supply of the following may be considered while fixing targets:

    i) adequate and timely supply of raw materials;
    ii) adequate accommodation;
    iii) adequate equipment and repairing tools;
    iv) adequate and qualified teaching personnel.

5) Targets should not only aim at the production of articles of utility but of beauty as well.

With these criteria as guiding points, let us examine the various points

that have to be considered in the fixing of targets.

Usually the following methods are used for assessing practical craft work.

i) Appraisal of product;
ii) appraisal of the procedure adopted to develop the product;
iii) measuring the time taken by an individual to perform the work (14, p. 168).

But we find that in current practice of evaluating achievement of Basic school in crafts only the two aspects, viz., the appraisal of product and the time taken for the performance of the work are given consideration. The other aspect, i.e., the procedure adopted to develop the product is generally neglected. This may be due to the fact that it is often difficult to arrange for objective assessment of this aspect.

Time Factor

As time factor is considered as an important aspect in the assessment of craft, and quantity targets would be based on this factor, this should be decided while considering the tentative targets. As far as the number of working days is concerned the majority of the schools work for more than 220 days in a year (vide Table 18). So while fixing targets the normal number of working days may be regarded as 220.

The daily allotment of time for craft practice as it is followed in the various grades has been found to be as follows:

I and II grade	....	$\frac{1}{2}$ - 1 hour
III and IV grade	....	1 - $1\frac{1}{2}$ hour
V to VIII grade	....	1 - 2 hours

The experts have also endorsed such an allotment. So the daily allotment could be taken specifically as I and II grades 1 hour, III and IV grades $1\frac{1}{2}$ hours and V to VIII grades 2 hours.

A portion of the time allotment for crafts should be provided for the subsidiary crafts. So fixing of targets with reference to time factor, this has been taken into account. The following allocation of time as worked out on the lines, is suggested.

Grades	School days for a year	Daily time in Hrs.	Total Hrs. for a year	Time for Subsidiary craft	Time for preliminary process	Time for Spinning
III	220	$1\frac{1}{2}$	330	50	120	160
IV	220	$1\frac{1}{2}$	330	50	120	160
V	220	2	440	40	160	240

Quantity Targets In Spinning

After deciding the time factor, let us take up fixing targets in spinning. In spinning, quantity targets should be based on grading of skill or processes of spinning. The trend of the speed of spinning on takli and charkha in the syllabi of States can be indicated as follows:

Grades	Takli rounds per hour	Charkha rounds per hour
I	25	-
II	30	60
III	50	100
IV	-	160
V	-	200

Similar speed targets have also been recommended by experts (vide Tables 28 & 29). Since majority of the experts are of the opinion that grades I & II should not have any targets, the targets have to be considered with reference to the achievement of Basic schools, for grades III, IV and V.

Considering the various factors, the following speed targets are suggested.

Grades	Takli rounds per hour	Charkha rounds per hour
III	25-30	30-40
IV	50-60	90-100
V	70-80	150-160

The quantity targets would be calculated on the basis of the speed targets and the time devoted to craft practice. So the quantity targets in spinning are worked on the above principle.

Grades	Speed on Takli rounds per Hr.	Speed on Charkha rounds per hour	Time for Spinning	Quantity in Hanks
III	25 - 30	30 - 40	160	6 - 8
IV	55 - 60	90 - 100	160	16 - 20
V	70 - 80	150 - 160	240	40 - 50

The quality targets for spinning are given in accordance with the analysis of the various syllabi. It is found that the majority of the schools surveyed were able to achieve these targets. The following targets are,

therefore, suggested.

Grade	Count	Strength
III	10 - 12	50 - 55
IV	14 - 16	55 - 60
V	16 - 20	60 - 70

Since the quality of evenness cannot be measured, this aspect is excluded from the targets.

Weaving

While fixing targets for weaving, the time available for craft practice will have to be distributed to spinning, preliminary processes of weaving and the weaving process. Preliminary processes of weaving include all the processes from twisting of yarn to fixing of warp into the loom. Provision is not made for time for the preliminary processes of spinning i.e., cleaning, ginning of kapas, carding, as these could be done out side the school hours. Thus the distribution of time for weaving may be as follows:

Grades	Total Hrs.	Subsidiary crafts	Spinning	Preliminary process of weaving	Weaving Process
VI	440	40	100	150	150
VII	440	40	100	150	150
VIII	440	40	100	100	200

The preliminary processes of weaving would require almost the same time as weaving process properl, especially in the initial stage of weaving; but the efficiency would be increasing gradually, so the time allotment at grade VIII is reduced.

The quality targets for weaving have to be based, keeping in view, the time factor and speed targets. The speed targets (the time taken for a piece of cloth) have been analysed on the basis of the achievements of schools and on the basis of discussion with experts. As shown in Table 20 four types of cloth are usually prepared by Basic schools. The time for the process of weaving is given in range, calculated on the basis of the analysis of data given by the schools.

From the study it has been found that speed targets for weaving depend on four factors, viz., measurement of cloth, quality of yarn, (the count and strength) the process involved and the grade level of pupils. A great and II. A large number of schools failed to reach 50% of the targets of

variation is likely to be found in these factors as we do not expect the pupils of Basic schools to use the same type of cloth, with the same measurement and the same pattern or design. Moreover, in Basic schools yarn spun by pupils of different grades would be pooled together, which will naturally be of varied quality (strength and count). As the available yarn has to be utilised for weaving, the pattern and type cloth will be determined by such factors. It is, therefore, neither possible nor desirable to make these factors strictly uniform while fixing targets in terms of quantity. So for fixing targets for weaving in terms of quantity the speed targets given for four types of cloth (see Appendix 9) should be primarily considered, along with other factors which would necessarily be varying from school to school.

Wood Work

In wood-work, planning and drawing of the sketch plan of the article is an important process and has to be considered while planning distribution of time. In conformity to the experts' views, it is suggested that at least 1/8 of the total time allotted to wood-work be given to the planning and work drawing. As wood-work is included from VI grade in the majority of the schools, targets are proposed only for the upper three grades. It is suggested that the time allotment would be distributed as follows:

Grades	Total time in hours	Time forSubsidiary crafts	Time for planning & drawing	Time for execution
VI	440	40	50	350
VII	440	40	50	350
VIII	440	40	50	350

In wood-work also the speed targets (time taken for the preparation of article) depend on the four factors viz., size of the article, quality of raw-material, processes involved in the preparation and the grade of pupil.

As we find in the case of weaving, the articles of wood-work that would be prepared in every school may be varying in size as well as in design. Evidently the processes involved in preparation would be different according to the design. For the purpose of fixing tentative targets, a list of articles suggested in Pamphlet No. 70 has been taken up and certain articles which

SUMMARY AND CONCLUSIONS

Craft is introduced in Basic education for its educative values which can be realised through efficient practice. The efficiency of practice would naturally result in economic productivity. Targets are usually prescribed for craft work in order to be able to measure productivity and ensure proper standards of achievement. It is found that a large number of schools are not able to reach the standards specified in targets. Moreover, these targets were proposed about 10 years back. The targets need revision in the light of new experience. The present study was undertaken with a view to review the current targets and to propose targets in spinning, weaving and wood work.

The problem was studied with the help of available literature and syllabi of Basic schools, issued by Departments of the various States. The current practices in the targets for the crafts were surveyed through a questionnaire sent out to a number of schools of the various States. Certain crucial aspects of this problem were referred to experts through another questionnaire and discussions were held with experienced craft teachers and experts in this field. The tentative targets for spinning and weaving and wood-work were evolved in the light of the analysis of the study and the discussions. But the try out part of the plan could not be taken up along with this study in view of the limitation of time.

From the study of the syllabi, it was found out that targets are usually prescribed in relation to time, which varies from State to State. While fixing quantity targets the number of school days and daily allotment of time for craft have been taken into account. Targets are found to be prescribed generally for spinning in terms of quantity, quality and speed, but targets for weaving and wood-work are only in terms of quantity. Targets in terms of money value are in vogue in certain States. Such a practice, however, would lead to some difficulty in as the money value is determined by prevalent market prices.

Current practices in targets and achievements in crafts were analysed through a questionnaire sent to some schools. As for the authority responsible for laying down targets, three levels of authority viz., the State Department, Regional School Board and the Staff Council, are in vogue. As the majority of the schools work for about 220 days, this figure has been taken as a working figure for fixing quantity targets. In the daily allotment of time, variety of practices are followed, and the range of time allotment for different grades are as follows:

	I and II	...	$\frac{1}{2}$ hour - 1 hour
	III and IV	...	1 hour - $1\frac{1}{2}$ hour
and	V and VIII	...	2 hours.

In certain schools targets for spinning are not proposed for grades I and II. A large number of schools failed to reach 50% of the targets of

quantity and speed for spinning. Quality targets which are given only in terms of count (fineness of yarn) by a good number of schools, have been achieved to a great extent. In weaving, targets are specified in terms of quantity of cloth and the cloth produced is of four patterns. But the schools are preparing different varieties and of different designs such as, Asan, Niwar, towel, carpet and the achievement of schools in weaving is very low in relation to the targets. Weaving and wood work are introduced mostly in VI grade. Varied practices are followed in weaving and wood-work in relation to measurement of articles, quality of raw materials and time taken for the preparation of same articles.

In the opinions of the experts, targets should not be proposed for grades I and II as they think that at this stage responsibility of productivity should be felt more by teachers than by pupils. According to them the proposing of targets should be more decentralised and targets should be fixed either at the level of District or at the school level. They have also endorsed the current practice of time allotment for the different grades on their recommendation and on the light of the discussions with the experts, the tentative speed targets on takli and charkha spinning have been proposed.

As guiding principles in fixing of targets for craft, a list of criteria was worked out, which were also taken into consideration while working out the targets. The tentative quantity targets for spinning have been worked out on the basis of time factor and speed targets that have been proposed for takli and charkha.

In weaving and wood-work, the produce would vary in size, design and finish. Quantity targets have been suggested only in terms of the list of articles of that are commonly prepared by the schools. For this, other factors were also taken into consideration, like quality of raw material, processes involved in the preparation, and the grade of the pupils, and time for the preparation of articles have also been suggested.

These targets are tentative as these are based on mainly on the analysis of current practices. It is necessary to undertake field work for direct investigation of the problem, as the various factors that influence the achievement in crafts can be found out in a better way by an experimental study. As this kind of investigation could not be undertaken due to some difficulties, these tentative targets should be tried out in Basic schools of different regions of the country to find out their validity and the targets should be finalised in the light of the results of experiment.

The targets fixed should pay due regard to the individual differences found in children. It may not be proper to impose uniform standards or targets on all children. In order to pay due regard to the individual differences, range targets have been proposed instead of specific targets.

Individual targets may not be possible, or even desirable, in all crafts. For instance, many of the ancilliary processes of weaving require more than one person. It is also necessary, generally, to encourage group work in schools, pupils are arranged in groups of two or more for weaving, woodwork etc. So individual targets have to be modified into group targets in such cases.

Due to some limitations it was not possible to cover the various aspects of the problem. There is a great need of undertaking investigations on the problems connected with the various aspects. Time is one of the main factors in the fixing of targets in crafts. There are diverse views on this point; one fact that should be borne in mind in this context is that crafts in Basic schools are multiprocessed and hence the factor of fatigue in doing routine work is reduced to the minimum. The optimum time that a child can devote to craft practice at different age levels has to be found out. Such a study may be made in the various processes involved in each craft, as no such grading of processes or skills has so far been undertaken.

While evolving quantity targets the quality of articles should also be taken into consideration besides the time factor. Except for spinning no standard units are prescribed to measure the quality of the produce in crafts. It is necessary to evolve a method of assessing the qualitative aspect of the produce. This would make quantitative targets and speed targets more accurate in application.

Agriculture is one of the major crafts practised by a large number of Basic schools. Fixing of targets in Agriculture has not been attempted on scientific basis. This is an urgent, though a difficult, problem. In agriculture individual targets may not be possible, but targets can be worked out on the basis of groups. It would be necessary to work out methods of measuring achievements in agriculture. It may be possible to develop individual targets in kitchen gardening, where one pupil does work on one separate pot, bed or plot.

In work it may be better to work out and evolve skill targets, as woodwork aims at developing some definite skills.

While determining targets various relevant factors will have to be borne in mind, like the development of creative urge, scientific attitude and special personality traits in children, the ability to solve problems involved in the craft work etc.

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APPENDIX 1

Questionnaire on

Evolving Minimum Targets in Craft Work for Basic Schools

A. GENERAL

1. Name of the Basic School _____.
   Name of the Locality _____.
   Name of the District _____.
   Name of the State _____.

2. Location of the School: Urban _____
   Rural _____

3. No. of years since the school is running as a Basic school _____.

4. The management of the school: State Government _____.
   Local Board _____.
   Private _____.

5. Average number of pupils on rolls and average daily attendance. (figures of the previous academic year should be given).

Grade	Rolls	Attendance
I	_____	_____
II	_____	_____
III	_____	_____
IV	_____	_____
V	_____	_____
VI	_____	_____
VII	_____	_____
VIII	_____	_____
Total		

6. Number of teachers and their qualifications including specialists:

No.	Designation	Qualifications		Experience of teaching in Basic schools in years	Spare time activity if any
		Academic Training	Training in Basic Edu.		
1.					
2.					
3.					
4.					
-					
-					

7. Number of working days in a year _____.

8. From the three given descriptions please check one under each item for your school:

	Good	Satisfactory	Un-satisfactor
i) Accommodation.			
ii) Equipment.			
iii) Store room for raw-materials and finished products.			
iv) Supply of tools to repair craft equipment.			
v) Supply of raw material			
vi) Disposal of finished produce			
vii) Provision of teaching aids			

9. Is any of the crafts followed in your school a predominant occupation of the people of the locality ? If so please mention the names of the crafts _____.

10. Do you arrange for school pupils occasional visit to the workshop of local craftsmen ? If so, please give the number of visits a year _____.

11. Do you invite local craftsmen to the school for giving demonstration to the pupils ? If so, give the frequency of such invitations in a year _____.

12. Do you organise exhibition in the school for the parents to see the products of the children ? If so, give the number of exhibitions held during the year _____.

13. Do you have any permanent museum in the school for exhibiting pupils' craft produce ? If so, give details of its space and equipment _____.

14. Is there a scheme of prize award for pupils of your school in craft work ? If so, please indicate the nature of award _____.

B. CRAFT TARGET

1. What syllabus is followed by your school in craft work ? (check one):

State Government _____
Hindustani Talimi Sangh _____
Pamphlet No. 70 of the
Union Ministry of Education _____

2. Please mention the crafts that are followed in your school:

Main _____ Subsidiary _____

3. State gradewise the number of hours actually allotted for the craft practice per week and per day within the school hours:

Grade	Main		Subsidiary	
	per week	per day	per week	per day
I				
II				
III				
IV				
V				
VI				
VII				
VIII				

4. a) Do you have any targets in the craft production ? _____.
   b) Who fixes the targets ? _____.
   c) Please state gradewise the targets fixed for the main craft : _____.

Grade	Quality	Quantity	Speed in each process
I			
II			
III			
IV			
V			
VI			
VII			
VIII			

5. Please give the average achievement of a pupil of your school in the main craft for one year (Figures of last academic year may be given).

Grade	Quality	Quantity	Speed in each process
I			
II			
III			
IV			
V			
VI			
VII			
VIII			

6. What do you think of the time allotted for the craft work ? (Check one):

Too much _____.
Adequate _____.
Too less _____.

7. What do you think of the targets fixed for the main craft ? (Check one):

Too high _____.
Normal _____.
Too low _____.

8. How would you like to have the targets fixed ? (Check one):

It should be fixed on individual basis _____.
It should be fixed on class basis _____.
It should be fixed on both the individual and class basis _____.

9. For what grades do you think that the targets should be laid down ? (Check one):

For I to VIII grades _____.
For II to VIII grades _____.
For III to VIII grades _____.

C. ASSESSMENT OF CRAFT WORK

1. How do you assess the craft work of the pupils ? (Check one):

Speed and workmanship of the produce _____.
Quantity of articles produced _____.
Considering both these above-mentioned factors _____.

2. Do you think that periodical recording is practicable in the assessment of craft work ? If so, how can it be assessed and recorded ? (Check one):

It can be based on daily work _____.
It can be based on weekly test _____.
It can be based on terminal test _____.
Any other way (Specify) _____.

3. Do you record the income from craft production of the individual pupil ? If so, on what basis is the value in terms of money calculated ? (Check one):

According to prescribed standard rate _____.
According to prevailing market rate _____.
Any other way (Specify) _____.

4. Do you assess the attitudes and work habits of pupils in the course of craft work ? If so, please enclose the specimen copy of assessment.

5. Do you use specific record forms for the assessment of craft work ? If so, please enclose the forms with questionnaire.

6. Do you face any difficulty of craft work ? (Please mention the difficulties below).

APPENDIX 2

Questionnaire on Evolving Minimum Targets in Craft Work for Basic Schools

1. What is your opinion about laying down certain minimum targets of production for Basic schools ? (please check one of the following statements).
   - i) It will lead to the improvement of pupils' skill and efficiency of teaching _____.
   - ii) It will result in overemphasis on production aspect at the cost of the educational outcomes _____.
   - iii) Such an external imposition will limit the enthusiasm of teachers and pupils _____.

2. On what basis should the targets be set ? (check one).
   - i) It should be fixed on the quantity basis (i.e. the amount of articles produced by pupils). _____.
   - ii) It should be fixed on the quality basis (i.e. the quality of the work and speed attainment in different processes of craft) _____.
   - iii) It should be on the economic basis (the income earned by child). _____.

3. On what level should the targets be laid down ? (check one).
   - i) It should be on the State level. _____.
   - ii) It should be on the District (Regional) level _____.
   - iii) It should be on the local (school) level _____.

4. For what grades should the targets be laid down ? (Check one):
   - i) For all the grades I - VIII _____.
   - ii) For the grades III - VIII _____.
   - iii) In any other way (please specify the grades). _____.

5. What is the number of hours that can be allotted for the craft practice out of a school day ? (the school day varies from State to State. We have taken 3 examples 3 hours, $4\frac{1}{2}$ hours and 5 hours. Please specify the desirable allotment for all these types gradewise).

Grades	Total hours of a school day		
	A (3 hours)	B ($4\frac{1}{2}$ hours)	C (5 hours)
I			
II			
III			
IV			
V			
VI			
VII			
VIII			

6. What should be the minimum speed of targets for spinning on takli and charkha ? (Please encircle one of the targets given below for each grade).

Grades	Speed targets per hour in rounds			Implement
I	25	30	40	Takli
II	30	50	60	Takli
III	50	60	80	Takli
II	60	80	100	Charkha
III	100	120	160	Charkha
IV	160	200	250	Charkha
V	200	240	320	Charkha

7. What should be the minimum targets of production in weaving ? (please encircle one of the targets for each grade).

Grade	No. of square yards to be produced per year		
VI	12 D. W.	16 D. W.	24 D. W.
VII	50 D. W.	60 D. W.	80 D. W.
VIII	12 D. W.	20 D. W.	40 D. W.
	33 $\frac{1}{3}$ S. W.	40 $\frac{1}{3}$ S. W.	60 $\frac{1}{3}$ S. W.

8. What is your opinion about the targets in wood work and metal work ? (At present the targets on wood work and metal work are laid down on the number of articles or models finished by a pupil). (Please check one).

i) It should be continued as it is _____.
ii) It should be revised by setting up speed targets in the different processes _____.
iii) It should be set on the basis of earning capacity achieved by a pupil _____.
iv) It should be set on the quality of the articles produced _____.

APPENDIX 3

Proforma for Wood-Work and Weaving

I. Instructions to the Respondents

(a) The articles listed in the proforma are usually prepared by Basic school pupils in the various grades during wood-work and weaving. Kindly go through the list and tick off those articles that have been actually prepared in your school.

(b) Please give all the details required in columns 2 to 8 for each of these articles which have been prepared and ticked off by you. The details should be based on actual practical work done by pupils of the grade for each article.

(c) In case the list of articles does not include any article prepared by pupils in your school, kindly add them to the list and also complete all the details in columns 2 - 8.

II. Explanation of Terms used

(a) Wood work

i) Measurement - the length, breadth and height of the article.
ii) Processes - cutting, sawing, planning, chiselling, nature of jointing, polishing etc.
iii) Type of wood - Name of wood as Devadar, teak etc.
iv) Total time required in hours from the beginning to the completion of articles including the working drawing or sketching.

(b) Weaving

Column 7: Time taken by an individual pupil from the preparation of warp to finishing; the preliminary process like warping sizing are usually done by more than one pupil. So for uniform calculation, the time for these processes can be multiplied by two which is the minimum of pupils required.

Column 8: Total time taken for weaving by an individual with filled bobins.

A. Wood - Work

Sl. No.	Name of the Article	Measurement of the article in inches	Name of processes involved in preparing the article	Type of wood of which it is prepared	The grade in which the article has been prepared	Time taken by an average pupil of the grade.
1.	Wall rack					
2.	Book stand					
3.	Propeller					
4.	Pot stand					
5.	Cot					
6.	Stool					
7.	Candle-stand					
8.	Table					
9.	Writing desk					
10.	Almirah					
11.	Flag stand					
12.	Clock frame					
13.	Chair					
14.	Wooden tray					
15.	Office tray					
16.	Spoon					
17.	Box					
18.	File carrier					
19.	Sliding box					
20.	Ruler					
21.	Simple peg					
22.	Wooden sandles					
23.	Mallet					
24.	Ginning instrument					
25.	Blotter					
26.	Carding bow					
27.	Takli Box					
28.	Pin cushion					
29.	Sliver board					
30	Sliver prrssing board					
31.	Charkha					
32.	Phonto frame					

B. Weaving

Sl. No.	Name of the cloth	Measurement of cloth in inches	Processes involved double warp, single warp, plain or designed	Quality of Yarn in terms of count strength	The grade in which the article has been prepared	Time taken by an average pupil of the grade	Time taken for weaving process only
1.	Asan						
2.	Niwar (tape)						
3.	Towel						
4.	Shirting cloth						

APPENDIX 4

Targets and Achievement for Spinning

I Grade

Sl. No.	*	Total Hrs.	S - Tk.	Ct.	St.	Qty.
1.	T	375	20	8	60	5
	A	"	5	4/5	50	12
2.	T	226	-	"	"	-
	A	"	10	8	-	-
3.	T	110	20	8	-	5
	A	-	-	"	-	-
4.	T	484	30	"	-	9
	A	"	10	-	-	-
5.	T	226	60	"	"	19
	A	"	50	-	"	16
6.	T	254	40	10	60	$11\frac{1}{2}$
	A	-	30	10	-	$2\frac{1}{2}$
7.	T	310	40	"	-	9
	A	-	30	-	-	-
8.	T	440	20	10	-	5
	A	"	5	8	-	1
9.	T	110	-	-	"	"
	A	-	"	-	-	-
10.	T	230	40	8 10	60	12
	A	"	"	-	"	-
11.	T	440	40	8-10	-	12
	A	"	45	9-12	-	12
12.	T	325	"	"	-	"
	A	-	-	-	"	"
13.	T	558	40	10	-	10
	A	-	"	9	-	1
14.	T	220	"	"	-	"
	A	-	-	-	-	"
15.	T	8	10	8-10	-	"
	A	-	9	-	"	"
16.	T	223	-	"	"	"
	A	-	-	"	-	"
17.	T	240	40	"	-	8
	A	-	40	-	-	-
18.	T	240	-	-	"	-
	A	-	20-30	10	-	4
19.	T	110	20	8	-	5
	A	-	10	8	-	$\frac{1}{2}$
20.	T	330	-	-	-	-
	A	-	-	-	-	-
21	T	230	-	-	-	-
	A	-	-	-	-	-
22.	T	390	40	8-10	60	10
	A	-	20	8-10	50	3
23.	T	532	40	8-10	-	10
	A	-	30	8	-	4

* T = Target
A = Achievement
Hrs. = Hours

S-Tk. = Speed Takli
S-Ch. = Speed Charkha

Ct. = Count
St. = Strength
Qty = Quantity

Sl. No.		II Grade Total Hrs.	S-Tk.	S-Ch.	Ct.	St.	Qty.	III Grade Total Hrs.	S-Tk.	S.-Ch.	Ct.	St.	Qty
1.	T	375	40	-	10	60	12	375	80	100	12	60	30
	A	-	12	-	5-6	50	13	-	20	-	8	-	21
2.	T	226	-	-	-	-	-	226	-	-	-	-	-
	A	-	20	-	8	-	-	-	40	-	8	-	-
3.	T	110	40-50	-	10	-	12	110	80-100	-	12	-	525
	A	-	-	-	-	-	-	-	20	-	8	-	-
4.	T	484	45	-	-	-	18	484	60	-	-	-	27
	A	-	40	-	-	-	2	-	50	-	-	-	3
5.	T	266	80	-	-	-	29	399	100	180	-	-	65
	A	-	60	-	-	-	25	-	80	160	-	-	55
6.	T	254	80	120	10	50	19	381	80	160	12	-	65
	A	-	45	-	10	-	3½	-	55	100	12	-	8
7.	T	310	80	-	-	-	22½	310	80	-	-	-	22
	A	-	40	-	-	-	-	-	50	-	-	-	-
8.	T	440	40	-	10	-	10	440	60	80	16	-	20
	A	-	30	-	10	-	5	-	60	40	10	-	10
9.	T	110	-	-	-	-	-	110	80	-	10	-	20
	A	-	-	-	-	-	-	-	40	-	10	-	5
10.	T	460	-	120	10-12	60	12	460	-	160	12-16	70	30
	A	-	40	-	10-15	40	1	-	-	120	12-16	35-45	7
11.	T	440	-	120	10-12	-	40	440	-	160	12-16	-	65
	A	-	-	120	-	-	25	-	-	160	12-16	-	30
12.	T	325	60	-	10-12	-	20	325	-	200	12-15	-	45
	A	[illegible]	[illegible]	-	10-12	-	5	-	-	-	12-15	-	12
13.	T	558	40	100	10-12	-	12	558	120	160	12-15	-	40
	A	-	15	-	11	-	6	-	23	-	10	-	9
14.	T	220	-	-	-	-	-	220	26	-	8-9	-	3
	A	-	-	-	-	-	-	-	25	-	9	-	2
15.	T	228	20	-	10-12	-	-	228	35	-	10-12	-	-
	A	-	16	-	-	-	-	-	30	-	-	-	-
16.	T	223	15	-	-	-	5	223	25	-	-	-	9
	A	-	8	-	-	-	2½	-	12	-	-	-	4
17.	T	240	60	-	-	-	16	240	120	-	-	-	30
	A	-	60	-	-	-	-	-	120	-	-	-	-
18.	T	240	-	-	-	-	-	240	-	-	-	-	-
	A	-	30-40	-	10-12	-	6-8	-	60	-	12-15	-	60
19.	T	110	30	-	10	-	12	110	-	80	12	-	30
	A	-	20	-	8	-	½	-	-	50	8	-	2
20.	T	330	30	-	10	-	20	330	35	-	12	-	30
	A	-	30	-	10	-	20	-	35	-	12	-	30
21.	T	285	40	-	8 -10	-	4	285	60	-	10-12	-	10
	A	-	23	-	8	-	1½	-	39	-	10	-	4½
22.	T	390	40	-	10-12	60	12	390	-	160	12-15	60	35
	A	-	25	-	10-12	55	3½	-	25	-	10-12	60	4
23.	T	532	60	1	10	-	13	532	-	160	12	-	65
	A	-	42	-	10	-	6	-	-	120	12	-	25

Sl. No.		IV grade Total Hrs.	S-Tk.	S-Ch.	Ct.	St.	Qty.	V Grade Total Hrs.	S-Tk.	S-Ch.	Ct.	St.	Qty
1.	T	375	100	120	12-16	70	40	375	100	200	16-20	80	55
	A	-	28	-	10	55	21	-	60	85	12	60	41
2.	T	226	-	-	-	-	-	226	-	-	-	-	-
	A	-	60	-	12	-	-	-	-	120	12	-	-
3.	T	110	40	-	12-16	-	10-30	110	120-200	-	16-20	-	15-[illegible]
	A	-	40	-	10	-	10	-	60	-	13	-	-
4.	T	484	70	130	-	-	36	484	80	200	-	-	45
	A	-	-	80	-	-	10	-	-	160	-	-	-
5.	T	399	120	240	-	-	67	399	160	320	-	-	71
	A	-	100	200	-	-	60	-	120	240	-	-	62
6.	T	381	80	200	12-16	60	67	508	100	200	16-20	100	85
	A	-	-	120	14	10	-	-		120	14	-	10
7.	T	310	-	120	-	-	45	155	-	160	-	-	54
	A	-	-	60	-	-	30	-	-	80	-	-	-
8.	T	440	120	160	16	-	40	550	160	200	20	-	60
	A	-	80	120	16	-	20	-	100	160	20	-	30
9.	T	165	120	-	12	-	40	165	160	-	16	-	60
	A	-	60	-	12	-	10	-	80	-	15	-	15
10.	T	460	200	16-20	70	50	-	460	-	320	16-20	70	65
	A	-	200	16-20	50-60	25	-	-	-	200	16-20	45-60	31
11.	T	440	-	200	16-20	-	70	440	-	320	16-20	-	70
	A	-	-	200	16-20	-	50	-	-	320	16-20	-	70
12.	T	325	-	350	16-20	-	60	325	-	-	-	-	-
	A	-	-	-	16-20	-	15	-	-	-	-	-	-
13.	T	558	-	200	16-20	-	46	558	-	200	16-20	-	55
	A	-	-	15	-	-	6	-	-	110	13	-	40
14.	T	220	40	-	9-10	-	5	220	60	-	10-12	-	$7\frac{1}{2}$
	A	-	36	-	10	-	5	-	50	-	11	-	$5\frac{1}{2}$
15.	T	228	45	-	10-12	-	-	228	50	-	10-12	-	-
	A	-	42	-	-	-	-	-	48	-	-	-	-
16.	T	223	-	80	-	-	28	223	-	120	-	-	44
	A	-	-	40	-	-	14	-	-	60	-	-	24
17.	T	360	-	200	-	-	46	360	-	200	-	-	44
	A	-	-	180	-	-	-	-	-	200	-	-	-
18.	T	240	-	-	-	-	-	240	-	-	-	-	-
	A	-	-	100	15-20	-	20	-	-	240	16-25	-	20
19.	T	220	0	120	16	-	40	220	-	200	20	-	55
	A	-	-	70	10	-	3	-	-	160	10	-	10
20.	T	330	40	60	15	-	40	330	60	100	16	-	50
	A	-	40	60	15	-	40	-	60	100	16	-	50
21.	T	285	-	100	12-14	-	15-20	230	-	120	16-18	-	-
	A	-	-	94	14	-	$9\frac{1}{2}$	-	-	99	17	-	10
22.	T	390	-	200	16-20	60	40	390	-	200	16-20	70	55
	A	-	-	80	12-14	60	$4\frac{1}{2}$	-	-	120	14	65	7
23.	T	532	-	180	12-16	-	67	798	-	210	20	-	102
	A	-	-	140	16	-	35	-	-	200	16	-	65

APPENDIX 5

Targets and Achievement of Schools in Weaving

Sl. No.		V			VI			VII			VIII		
		Qty.	Qly.	Speed	Qty.	Qly.	Speed	Qty.	Qly.	Speed	Qty.	Qly.	Speed
1.	T	-	-	-	-	-	-	60	-	1	60	-	1
	A	-	-	-	-	-	-	-	-	-	-	-	-
2.	T	-	-	-	30-40	D.W.	-	50	D.W.	-	50	D.W.	-
	A	-	-	-	-	-	-	-	-	-	-	-	-
3.	T	-	-	-	5	-	-	10	-	-	15	-	-
	A	-	-	-	-	-	-	-	-	-	-	-	-
4.	T	-	-	-	18	-	$\frac{1}{2}$	36	-	1	-	-	-
	A	-	-	-	15	-	$\frac{1}{4}$	31	-	1	-	-	-
5.	T	-	-	-	(Rs. $56\frac{1}{4}$)	-	2/3	(Rs. $89\frac{1}{4}$)	-	2/3	(Rs. $86\frac{1}{4}$)	-	5/6
	A	-	-	-	-	-	-	-	-	-	-	-	-
6.	T	$1\frac{1}{2}$	Carpet	-	-	-	1/3	-	-	$\frac{1}{2}$	-	-	-
	A	-	-	-	-	-	-	-	-	-	-	-	-
7.	T	-	-	-	-	-	-	-	-	-	-	-	-
	A	-	102'x8"	Asan	123'x12"	Asan	-	234'x36"	Shirting	-	-	-	-
8.	T	-	-	-	60	-	-	60	-	-	60	0	-
	A	-	-	-	$4\frac{1}{2}$'x30"	-	-	$3\frac{1}{4}$'x30"	-	-	9'x30"	-	-
9.	T	-	-	-	-	-	-	Self Sufficiency	-	-	Self Sufficiency	-	-
	A	-	-	-	-	-	-	-	-	-	-	-	-
10.	T	-	-	-	(Rs. 20)	-	-	(Rs. 25)	-	-	(Rs. 50)	-	-
	A	-	-	-	(Rs. 14)	-	-	(Rs. 22)	-	-	(Rs. 43.31)	-	-
11.	T	[illegible]	-	-	12	-	-	18	-	-	25	-	-
	A	[illegible]	-	-	6	-	-	10	-	-	15	-	-
12.	T	[illegible]	-	-	10	-	-	12	-	-	15	-	-
	A	[illegible]	-	-	2	-	-	3	-	-	5	-	-
13.	T	15"x24"	Asan	-	27"x54"	Towel	-	4	-	-	-	-	-
	A	15"x24"	Asan	-	27"x54"	Towel	-	4	-	-	-	-	-
14.	T	-	-	-	18x18"	Asan	-	12'x27"	Shirting	-	18'x30"	Shirting	-
	A	-	-	-	3'x18"	Asan	-	$6\frac{1}{4}$'x25"	-do-	-	$10\frac{1}{2}$'x30"	-do-	-

* Quantity (Qty.) in Sq. yards D.W. = Double Warp Speed in Sq. yards per hour.

APPENDIX 5

Targets and Achievement of Schools in Weaving

	V			VI			VII			VIII		
	Qty.	Qly.	Speed	Qty.	Qly.	Speed	Qty.	Qly.	Speed	Qty.	Qly.	Speed
T	-	-	-	-	-	-	60	-	1	60	-	1
A	-	-	-	-	-	-	-	-	-	-	-	-
T	-	-	-	30-40	D. W.	-	50	D. W.	-	50	D. W.	-
A	-	-	-	-	-	-	-	-	-	-	-	-
T	-	-	-	5	-	-	10	-	-	15	-	-
A	-	-	-	-	-	-	-	-	-	-	-	-
T	-	-	-	18	-	$\frac{1}{2}$	36	-	1	-	-	-
A	-	-	-	15	-	$\frac{1}{4}$	31	-	1	-	-	-
T	-	-	-	(Rs. $56\frac{1}{4}$)	-	2/3	(Rs. $89\frac{1}{4}$)	-	2/3	(Rs. $86\frac{1}{4}$)	-	5/6
A	-	-	-	-	-	-	-	-	-	-	-	-
T	$1\frac{1}{2}$	Carpet	-	-	-	1/3	-	-	$\frac{1}{2}$	-	-	-
A	-	-	-	-	-	-	-	-	-	-	-	-
T	-	-	-	-	-	-	-	-	-	-	-	-
A	-	102'x8"	Asan	123'x12"	Asan	-	234'x36"	Shirting	-	-	-	-
T	-	-	-	60	-	-	60	-	-	60	0	-
A	-	-	-	$4\frac{1}{2}$'x30"	-	-	$3\frac{1}{4}$'x30"	-	-	9'x30"	-	-
T	-	-	-	-	-	-	Self Sufficiency	-	-	Self Sufficiency	-	-
A	-	-	-	-	-	-	-	-	-	-	-	-
T	-	-	-	(Rs. 20)	-	-	(Rs. 25)	-	-	(Rs. 50)	-	-
A	-	-	-	(Rs. 14)	-	-	(Rs. 22)	-	-	(Rs. 43.31)	-	-
T	-	-	-	12	-	-	18	-	-	25	-	-
A	-	-	-	6	-	-	10	-	-	15	-	-
T	-	-	-	10	-	-	12	-	-	15	-	-
A	-	-	-	2	-	-	3	-	-	5	-	-
T	15"x24"	Asan	-	27"x54"	Towel	-	4	-	-	-	-	-
A	15"x24"	Asan	-	27"x54"	Towel	-	4	-	-	-	-	-
T	-	-	-	18x18"	Asan	-	12'x27"	Shirting	-	18'x30"	Shirting	-
A	-	-	-	3'x18"	Asan	-	$6\frac{1}{4}$'x25"	-do-	-	$10\frac{1}{2}$'x30"	-do-	-

Quantity (Qty.) in Sq. yards D. W. = Double Warp Speed in Sq. yards per hour.

Sl. No.	Article	Grade	Measurement (in inches)	Quality of raw material	Total Time	Processes involved
1.	Wall rack	VI	3x6x$\frac{1}{2}$	Teak	4	Sawing, planing, chiseling through lap joint & polishing.
2.	"	VIII	22x15x4	Mango wood	6	Sawing, planing, chiseling & assembling.
3.	"	"	5x12x3 - 1	Sal wood	7$\frac{1}{2}$	-do-
4.	"	VII	x9x3 - 1	Kodal	12	Nail joint.
5.	"	VI	24x18x6	Holdi	10	Grove joint & Polishing.
1.	Book stand	VI	9x8x$\frac{1}{2}$ - 2	Teak	8	T.M. & T. joints, Polishing.
2.	"	VI	21x4x$\frac{1}{2}$ - 2	Teak	"	-do-
3.	"	VIII	16x7x10	Devdar	8	Nail joint & polishing.
4.	"	VII	18x8x8	Devdar	8	Housing joint.
5.	"	VI	24x12x9	Teak	12	Grove joint & polishing.
1.	Pin cushion	VI	2x2x2	Rose wood	2	Chiseling, making round with chisel.
2.	"	VI	3x2x2	Teak	6	Chiseling.
1.	Wooden tray	VI	18x2x1$\frac{1}{2}$ - 2) 13x3$\frac{1}{2}$x$\frac{1}{2}$ -2) 18x7x$\frac{1}{2}$ - 2)	Teak	8	Planing, chiseling, housing joint.
2.	"	VII	18x1$\frac{1}{2}$x12	Devdar	12	Planing, Mittre joint, polishing.
3.	"	"	22x9x2$\frac{1}{2}$	Teak	7$\frac{1}{2}$	Devetail joing & polishing.
4.	"	VII	18x12x1$\frac{1}{2}$	Sal	12	Nail joint.
5.	"	VIII	18x12x1$\frac{1}{2}$	Teak	12	Devetail joint and polishing.
1.	Sliding box	VI	14x6x$\frac{1}{2}$ - 4	Teak	"	Sauring and housing joint, nailing.
2.	"	"	13x5x$\frac{1}{2}$ - 4	Teak	-	Sliding arrangement with handle.
3.	"	VIII	9x4x2$\frac{1}{2}$	Teak	20	Dovetail joint.
4.	"	VIII	10x2$\frac{1}{2}$x2	Gama	8	Dovetail joint, polishing.

APPENDIX 8

Articles Prepared by Schools in Wood Work

Sl. No.	Article	Grade	Measurement (in inches)	Quality of raw material	Total Time	Processes involved
1.	Spoon	V	8x1½x3	Yellow teak	4	Planning, scrapping, forming cut.
2.	"	-	4x2x1¼	Gama wood	6	Chiseling, Filing, Sand papering.
3.	"	VI	6x1½x1	"	8	Sawing, chiseling, Sand papering.
1.	Ruler	V	18x1x1	Rose wood	3	Ends to be planed, Rounding with whirling machine.
2.	"	VI	18x1x1	Devdar	2	Sawing, planing, painting.
3.	"	..	24x1½x1¼	Burma teak	3	Planing, rounding, Sandpapering.
4.	"	VI	18x1¼x½	Halande	10	Planing, chiseling.
5.	"	VII	24x1½x1½	Teak	4	Sawing, planing,, turning, polishing.
1.	Simple peg	V	14x2½x2½	Bahali	4	Planing, chiseling, half rounding, half (Uhiling).
2.	"	VI	12x2½x2½	Halandar	4	-do-
3.	"	VI	18x3x2	Sal wood	4	Sawing, chiseling, planing.
1.	Wooden sandles	V	10x5x3/4 - 2	Teak	4	Planing, chiseling, Sandpapering.
2.	"	VI	10x4x5/8 - 2	Shisham	2	Sawing, planing.
3.	"	VII	10x4x5/8	Shisham	4	Sawing, planing.
4.	"	VI	10x4x1 - 2	Shisham	6	Planing.
5.	"	VI	10x4x1 - 2	Teak	8	Sawing, planing, chiseling.
1.	Mallet	V	12x3x3 - 1	Babul	4	Planing, chiselling, filing.
2.	"	..	6x4x3	Babul & handle Sal	9	Cutting, shaping, holing, fitting.
3.	"	VI	14	Sal	8	Planing.
4.	"	VII	12x5x3	Sal	16	Sawing, planing, chiseling.
1.	Sliver Board	V	16x8x½	Teak	4	Planing, sawing, joining.
2.	"	VII	14x9x½	Sal	8	Planing, nailing.
3.	"	VI	14x7x½	Teak	3	Sawing, planing, Screw joint.
1.	Sliver pressing board	V	8x6x1	Teak	6	Sawing, planing, handle, screw / join
2.	"	VII	9x9x½	Sal	6	Chiseling, nailing
3.	"	VI	7x7x½	Teak	6	-do-

(Contdd.)

APPENDIX 9

Targets in Weaving

Sl. No.	Name of Article	Grade	Measurement	Quality of yarn Count	Quality of yarn Strength	Process involved	Time taken
1.	Asan	VI	24" x 28"	8-10	50-60	*D. W. - plain	8-12 hours
2.	Niwar	VI	30' x $2\frac{1}{2}$"	8-10	50-60	F. F. - Twisted	35-40 hours
3.	Towel	VII	24" x 18"	12-16	60-80	D. W. - Plain	6-10 hours
4.	Shirting cloth	VII	36' x 36" (12 Sq. Yds)	14-16	60-80	D. W. - Plain	40-50 hours

* D. W. = Double Warp
F. F. = Four Fold

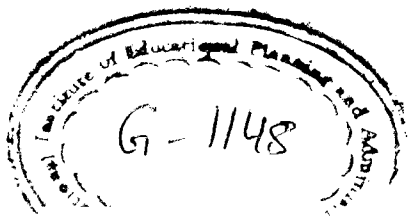
APPENDIX 10

Tentative Targets in Wood-Work

Sl. No.	Article	Grade	Measurement (in inches)	Quality of raw material	Total Time	Processes involved
1.	Simple peg	VI	18x3x2	Sal wood	4 5	Sawing, chiseling, planing.
2.	Ateran	VI	12x4x$\frac{1}{2}$	Gama wood	3-4	Sawing, planing chiseling.
3.	Wall rack	VI	24x18x6	Holdi wood	10 12	Sawing planing, chiseling, groove joint & polishing.
4.	Book stand	VI	24x12x9	Teak wood	12 14	Sawing, planing chiseling, groove-joint & polishing.
5.	Spoon	VI	6x$\frac{1}{2}$x1	Gama wood	8 10	Chiseling sawing and filing.
6.	Pin cushion	VI	3x2x2	Teak wood	6-8	Sawing, planing, chiseling.
7.	Blotter	VI	6x4x3	Gama wood	8-10	Sawing planing, chiseling.
8.	Sliver board	VI	14x7x1$\frac{1}{2}$	Teak wood	4 6	Sawing planing, screwjoint.
9.	Sliver pressing board	VI	7x7x$\frac{1}{2}$	Teak wood	6-8	-d0
10.	Pot stand	VII	9x12x12	Frames, sal top-teak	12 14	Sawing planing, chiseling, painting. Mortie & tenon joint.
11.	Ruler	VII	18x3x2	Sal wood	4-6	Sawing planing, turning & polishing.
12,	Mallet	VII	12x5x3	Sal wood	16-18	Sawing, planing, chiseling.
13.	Takli box	VII	18x3x2	Teak wood	10 12	Sawing, planing, chiseling, half-top joint.
14.	Photo frame	VII	18x14x$\frac{1}{2}$	Teak wood	10 12	Sawing, planing chiseling, meter joint.
15.	Stool	VIII	18x12x12	Teak wood	18-20	Sawing, planing, mortis & tenom joint, polishing.
16.	Wooden frame	VIII	18x12x1$\frac{1}{2}$	Teak wood	12 14	Sawing, planing, dovetail joint.
17.	Office tray	VIII	18x12x1$\frac{1}{2}$	Teak wood	12-14	-d0

(Contd.)

Sl. No.	Article	Grade	Measurement (in inches)	Quality of raw material	Total Time	Processes involved
18.	Carding box	VIII	36x8x1	Teak wood	16-18	Sawing, planing, chiseling, filing.
19.	Sliding box	VIII	10x2$\frac{1}{2}$x2	Teak wood	8-10	Sawing, planing, chiseling, polishing, grooving, dovetail joint.
20.	Black board	VIII	48x36x1	Teak wood	20-24	Sawing, planing, chiseling, metre joint and blackboard painting.



Printed at Rotaprint Section, National Institute of Basic Education, Government of India, New Delhi-14.