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Title of the paper - An Impact Assessment of Training Package for Inculcation of Skills Among Leather Good Workers

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Abstract

Today, the world and India need a skilled workforce. India can become the global sourcing hub for skilled employees. If we have to promote the development of our country then our mission has to be ‘skill development’ and ‘Skilled India.

The planning Commission of India has estimated that around 500 million skilled persons will be required by 2022, while the current capacity of the skill development program is 3.1 million. 11th Five year Plan has laid the strong foundation for the skill development initiative, which aims for faster, more inclusive and environmentally sustainable growth.

National Knowledge Commission (NKC) (2009) reported the need to create a “National Skill Development Fund” imposing a universal skill development obligation on industry to invest in skill development of SCs/STs/OBCs/Minorities/Other candidates from Below Poverty Line families as their contribution to affirmative action combined with matching Government contribution.

Leather Good Workers (LGW) are illiterate or semiliterate. They learned the leather goods making skills from their ancestors. They don’t know the visualization skills for new goods development and used acquired skills for making new type of leathers goods. The mixed strategy was adopted for development of training programme. Training package include print material for knowledge components and videos for seeing the required skills. Three day training programme was organised. The learners were asked to study the print material, followed by viewing the videos along with discussions with the experts then doing an activity under supervision of the experts.

The LGW acquired various skills through training programme. After two months, the presenter visited their workplace to see how they used these skills for making different leather goods. Most of LGM had developed the different leathers goods which were useful for the society. They were happy about the training programs for guide them to use the skills in different situation.

Introduction

Social and economic development of any country depends on skills and knowledge of human being. India is a country having great diversity. Indian economy has achieved significant rise over last few decades. However, the growth is not uniform across all states in the country. The demographic condition of each state is different in India. Therefore occupational profession is also different. The livelihood of workers are depend on such profession. Most of the workers have inherited these skills from their ancestors. The economic progress of the any state is directly related to the development of technical and vocational education system.

Formal Education System developed cognitive development of a child. Development of Skill component is missing. Various Commission and reports have provided the guidelines for development of Skill workforce.

India can then become the global sourcing hub for skilled employees. It has been reported by Patniak. J.(2015) that the development of India could be promoted by understanding the missions such as Skill development and Skilled India. The world and India would need a skilled workforce.

The planning Commission of India has estimated that around 500 million skilled persons would be required by 2022, while the current capacity of the skill development program is 3.1 million. Considering various issues, India is likely to witness a deficit of 5.25 million employable graduates and vocationally trained workforce in next few years. The 11th Five year Plan has laid the strong foundation for the skill development initiative, which aims for faster, more inclusive and environmentally sustainable growth.

Deloitte Report (2013) mentioned that between 2025 and 2040, the working age population will comprise 64-65% of the total population in India. However, large sections of the working age population lack the education and skills to be a major challenge for the country.

National Knowledge Commission (2009) reported about Skill based Education “Enlarge the coverage of skill spectrum to 1000 trades with relevance to our emerging needs, while making a distinction between structural, interventional and last mile employability and correspondingly set up programs of different duration of 6, 12 and 24 months. “Finishing Schools” will be encouraged to take care of last mile unemployment. Create a “National Skill Development Fund” imposing a universal skill development obligation on industry to invest in skill development of SCs/STs/OBCs/Minorities/Other candidates from BPL families as their contribution to affirmative action combined with matching Government contribution.

The objective of the National Policy on Skill Development and Entrepreneurship, 2015 refer to meet the challenge of skilling at scale with speed and standard (quality). It will aim to provide an umbrella framework to all skilling activities being carried out within the country, to align them to common standards and link the skilling with demand centres. <https://www.msde.gov.in/National-Policy-2015.html>

Singh R.P. (2011) reported in Report of Working Group on Leather and Leather Products Twelfth five Year Plan. The objectives are demand driven, Upgrading the skills of the workforce, and sustaining a technology culture in the Indian leather sector.

Skilled Workforce Requirement

Pande, M. (2013) reported that Planning Commission has identified 20 sectors of high growth. Leather and Leather goods is one of sector. These skills are very much required.

Rao, R.R. (20---) Reported state wise Human Resource in the leather and leather Goods

Sector, varied from state to state. Maharashtra is having only 2% skilled workers. Source: Annual Survey of Industries and IMAcS analysis

Training inadequacies and demand supply gap

All the Educational and Training institutions in India in leather sectors annually produce B.Tech., M.Tech., Diploma and Certificate. But over the years, efforts were not made to train and supply shop floor level workers and machine operators who constitute around 80-85% in the manufacturing units. This phenomenon clearly demonstrates that there is a mismatch in the demand and supply of manpower to the Indian Leather Sector and an acute shortage of required workforce.

Review of Related Literature

In the World Bank Report (2003) The lifelong learning included parameters namely, Educators are guides to sources of knowledge, People learn by doing, People learn in groups and from one another, Assessment is used to guide learning strategies and identify pathways for future learning, Educators develop individualized learning plans, Educators are lifelong learners. Initial training and ongoing professional development are linked and People have access to learning opportunities over a lifetime.

Various forms of training

Buckley, R. Caple J. (1996) reported that Training should be a systematically planned investment in the development of the knowledge, skills and attitudes needed by an individual to perform a job to a satisfactory level. He reported six types of training strategies i.e. (a) On-the-job training (b) Off-the-job training (c) One-to-one instruction (d) Coaching (e) Mentoring (f) On-the-job instruction (g) Supporting.

Skill development Strategy in India

Patnaik, J. (2015) concluded that Skills and knowledge development were the driving forces behind the financial growth and community development of any country. The challenge was not only in a huge quantitative expansion of facilities for skill training, but also in raising their quality. India could then become the global sourcing hub for skilled employees.

Burute, P. Y. (2014) studied the Sustainable Livelihood of Leather Artisans in Kolhapur District and concluded that majority of the respondents were semiliterate and had income ranging from Rs. 5001 to Rs.7500/- per month.

Yashwantrao Chavan Maharashtra Open University (YCMOU) efforts

Mahale, S.R. (2013) reported that Yashwantrao Chavan Maharashtra Open University (YCMOU) developed two types of Certificate Programmes for them.

1. Five days Certificate Programme for illiterate and semiliterate skilled leather workers for recognizing their prior knowledge.
2. Six months Certificate Programme for unskilled person. (Above 18 years, and 8th passed) for giving skill based training, the unavailability of well equipped study centres this programme was not materialized.

Five days training programme is effective to develop awareness among the Leather worker to use these skills for development of different products.

The presenter took informal interview of leather goods workers. From the discussion, various questions arises pertaining to i.e. education, leather goods working skills, ability to develop new design availability of Programme, Is it possible to organize the training programme for leather workers through open and distance education system?

For solving above questions, the presenter took a research project entitled as

Development and effectiveness of multimedia package for leather goods through Open and Distance Education System

Objectives of the study

1. To identify the training needs of leather workers.
2. To review the present Leather skilled based programme for document and standardise the various skills associated with leather work.

3. To design and developed multimedia Package for development of various leather goods making knowledge and skills.
4. To study the effectiveness of the multimedia package for development of knowledge, skills and competencies among leather workers.

Hypothesis:

There will be significant change among the leather goods workers for development of various types of leather goods after training with the help of multimedia package.

Variables:

Independent variable - Multimedia package

Dependent variable - Visualisation, Sketching and Drawing, Mood, Scratch and Colour Board and Pattern Making

Controlled variable – Semi literacy, adult learner, age group 30-50

Research Methodology

Mixed Research Method was selected for the study. Convergent parallel design was used for the study.

Population and Sample of the Study

Population –All the leather goods workers, working at Nashik and Central Mumbai (Kurla and Dharavi) are the population of for this study.

Sample - This research was conducted in two districts, Nashik and Central Mumbai (Kurla and Dharavi) from 110 LGW are randomly taken for survey and were 22 respondents for training programme.

Tools for data collection

1. *Questionnaire* : Survey for basic knowledge about the leather workers (Profile, Need, Skill requirement and Skill gap)

2. *Documentary Analysis* : To study the various types of programme available in India.

3. *Thinking Process Identification Scale*: Leather Goods development requires various stages/components. A Five point scale was developed for this purpose. All the Leather workers make one or two specific Leather Goods. But in the training programme wider perspective for making various Leather Goods was developed. These statements included Addition, Subtraction, Modification, Magnification new or alternative way of producing leather good, use of different types of material, usability of the goods, low cost and maximum use of the leather goods.

Participatory Observation : Skills development among the leather workers was observed by the researcher and the experts.

Research Procedure:

This research was divided into two parts

Phase 1 - Development of Multimedia Package

Phase 2 – Testing the Effectiveness of the Multimedia Package for inculcation of skills among leather goods workers

Phase 1 - Development of Multimedia Package – The ADDIE model was used for the development of multimedia package. This model has five components Analysis, Design, Development, Implementation and Evaluation.

Researcher visited Central Leather research Institute (CLRI) Chennai, Footware Design and Development Institution(FDDI) Noida, New Delhi. She discussed with Leather goods maker, trainers and officers of LIDCOM in Maharashtra. The Leather goods workers are required the theoretical and practical knowledge. Multimedia package included Self Instructional Material(SIM) for Knowledge component, Videos included skill component. The SIM and videos was developed with the help of expert.

Video Development

The Researcher developed videos at FDDI Noida and self Instructional materials at University headquarter with the help of experts. Schematic Presentation of the Multimedia Package development is presented in the figure 1

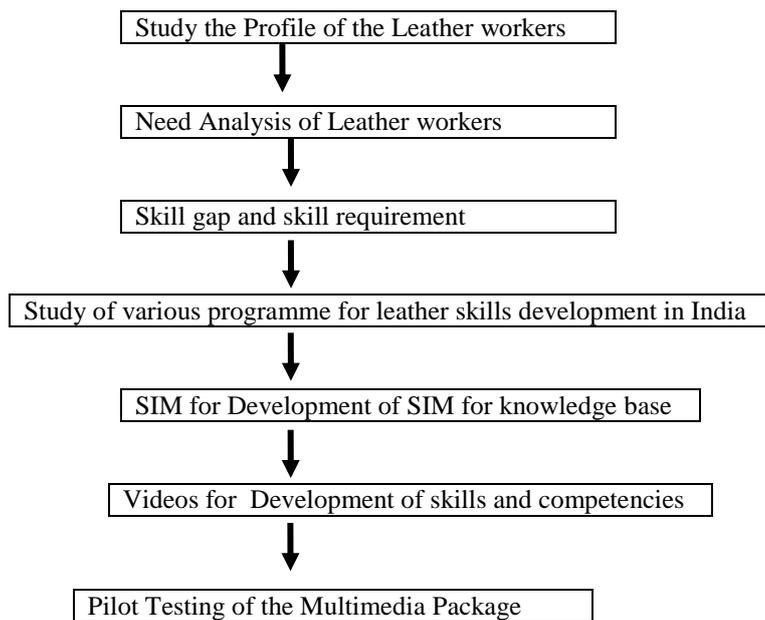


Fig 1 Schematic Presentation of Development of Multimedia Package

Finalisation of Multimedia Package - Before the training programme, pilot testing of the multimedia package was required. Three days collaborative rigorous exercise was done by the experts, researcher and trainees. The lifelong learning principles are also considered. Interlinking among the SIM and Videos and SIM was done. Six books (Thinking Process, Sketching and Drafting, Types of Leather and its uses, Tools, Material and Machinery Required, Pattern Making and Development of Sample, Entrepreneurship Storage, Sale of and Development of Project Proposal for Loan. Ten videos are finalized (Leather goods development as per customers' requirements, New concepts for developments leather Goods, Shapes and Forms Basics Sketching and Drafting, Skills for Two and Three dimensional Sketching, Types of leather and tanning process, introduction about material, tools, machinery, Visualization and pattern making, Leather cutting and stitching, Entrepreneurship storage of leather goods and marketing.

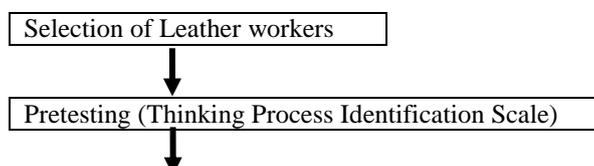
Leather skill based courses in India :

There are twenty seven Certificate Courses, seven Diploma and seven degree and three Post graduate degree programme available for the leather workers in different states of India. The structure of the programme is varying from state to state.

Phase 2 – Testing the Effectiveness of the Multimedia Package for inculcation of skills among leather goods workers

Convergent parallel design was used for the study. After studying the multimedia package the trainees were expected to developed skills for making various types of Leather Goods. Effect of the treatment was judged by using Thinking Process Identification Scale. Data collected before and after the training programme.

Various activities were conducted during and after the training programme for the development of practical skills. The flow chart is given below.



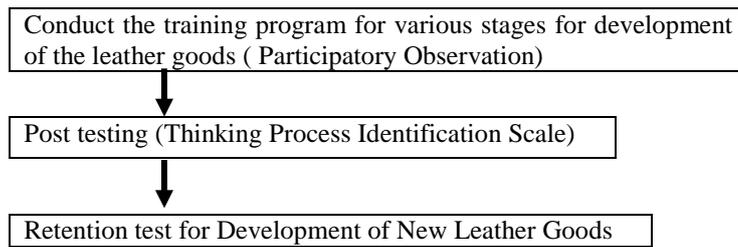


Fig. 2 Research Plan for testing and effectiveness of the multimedia Package

Analysis and Interpretation of Data

(A) Profile, Need Skill requirement and Skill gap)

Table 1- Qualifications of the participants

Primary		Secondary		Higher Secondary		Graduation		Post Graduation		Other	
Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
37	33.8	50	44.64	17	15.17	06	5.35	01	0.89	01	0.89

Observation : 34% of the respondents have primary education, 45% have Secondary Education. Only 15% have passed higher secondary and only 5% have completed their graduation. Only 1 respondent (of 112) has a post graduate degree and other degree.

Conclusion : Most of the leather workers are educated up to secondary level.

Table 2- Hereditary business of Leather Goods Making.

Yes		No	
Count	%	Count	%
83	74.10	29	25.89

Observation: It is observed that 83% have continued the same business from ancestors as a leather workers.

Conclusion: Leather good making occupation is hereditary.

Table no. 3 Number of participants having training for leather work

Yes		No	
Count	%	Count	%
3	2.68	109	97.32

Observation : It is observed that only 3% leather workers have training.

Conclusion : Leather workers require training for development of leather goods.

Table 4- Desire to join the training programme available in Future

Yes		No	
Count	%	Count	%
107	95.54	5	4.46

Observation :96% leather workers want to join the training Programme.

Conclusion : All leather workers wish to join training programme in future.

Table 5- Duration of the training programme

3 days		One Week		Two Week		One Months		6 Months	
Count	%	Count	%	Count	%	Count	%	Count	%
39	34.82	31	27.68	19	16.96	13	11.60	10	8.93

Observation: The table shows that 35% of leather workers preferred 3 days where as 28% of leather workers preferred one week training Programme

Conclusion: Most of the leather workers prefer short term training Programme.

Table no 6 - Monthly Income from the leather Goods occupation

Upto Rs 5,000/-		Rs 5,001/- to 10,000/-		Rs 10001/- to 20,000/-		Rs 20,001 and above	
Count	%	Count	%	Count	%	Count	%
35	31.25	44	39.28	19	16.96	14	12.50

Observation: 32% leather workers' monthly income is up to Rs.5,000 per month, that is up to Rs 10,000 for 40% of the leather workers.

Conclusion : Most of the leather goods workers having monthly income less than Rs. 10,000/- per month.

Table no.7- Skills of Drawing Three dimensional views on paper

Don't have a skill of drawing		Draw a good but not in proper shape		Three Dimensional picture in proper shape		Three Dimensional picture in proper shape and name of various part		Accurate visualization and Proper dimension of the figure	
Count	%	Count	%	Count	%	Count	%	Count	%
32	28.57	39	34.82	19	16.96	6	5.35	16	14.28

Observation : It is observed that 29% leather workers do not possess the skill of drawing three dimensional sketches on paper. 35% leather workers draw a leather good but not in proper shape.

Conclusion : Most of the leather goods workers required the skill of drawing, three dimensional views on paper

Table no.8- Skill for measurement various parts of leather goods

Proper skill for using the measuring tape		Measurement of various parts of the leather Goods		Using measuring tape measure the various parts of the Goods		Measure the various parts of the Goods and given name	
Count	%	Count	%	Count	%	Count	%
38	33.93	35	31.25	27	24.10	12	10.71

Observation : Only 65 % leather workers possess the skill of measuring the various parts of the leather goods using measuring tapes.

Conclusion :The leather workers need the training of using measuring tape and measuring various parts of leather goods.

Table no.9 - Skills of various steps of pattern making

Proper skills for handling of Scissors		Proper sketching of the pattern on paper		Pattern making by Using Scissors		Pattern with accurate name for various part	
Count	%	Count	%	Count	%	Count	%
18	16.07	46	41.07	24	21.43	24	21.43

Observation : 16% leather workers are poor for handling the scissors, 41% leather workers are poor in the skill of pattern making on paper.

Conclusion : Most of the leather workers lack the skill of pattern making.

(B) Qualitative feedback about the Multimedia Package given by various field expert

Multimedia Package was vetted by the experts. The experts were from different fields. They judged the multimedia package from different angles. The qualitative feedback received is as follows.

1. This encourage the students who wish to come into this occupation. The Multimedia Package is very useful and encouraging. It exhibits creativity and many other aspects which will change the attitude towards the leather occupation. Presentation of the content in self instructional material from simple concepts like dot and line to 2D and 3D composition of leather goods is effective. Every line in the self instructional material has deeper meaning which will give the leather workers various ideas and

skills. The cover page and quality of printing of SIM are very good. The simplicity of the language will help the existing leather workers who are semiliterate.

2. I have found all the components of the leather goods in the multimedia package, which I had experienced in one year course at **Italy**. The package includes various tools used in Indian leather goods development and it will help to develop confidence among the leather workers.
3. Suggestion given by the experts - A glossary is required at the end of the book will enhance the quality of SIM. The important aspects of the video should be included in the SIM.

(C) Thinking Process Identification Scale

The scale was administered before and after the training programme

Table no.11- Effectiveness of the training Programme

Test	Sample	Mean	Standard Deviation	Observed t- value
Pretest	22	23.28	6.2	5.74
Posttest	22	33.76	14.1	

Degree of freedom 21

Calculated t value is 0.05 level is 2.08 0.01 level is 2.83

Observed t value is more than calculated t value

Conclusion: The activities and multimedia package used in the training programme are helpful for changing the thinking process of leather workers.

(D) Training Activity Evaluation

Table no.12 Development of Mood, Scratch and Colour Board for making leather goods

leather goods used for human body		leather goods used by human		Leather goods for the pet animal		Show piece		Total	
Count	%	Count	%	Count	%	Count	%	Count	%
2	9.09	15	68.18	2	9.09	3	13.63	22	100

Observation :68% leather worker think of developing leather goods used by the human being.

Conclusion : The activity in the training programme are helpful in enhancing the skill of visualising various objects of leather goods.

Table no13- Quality of Mood, Scratch and Colour

Good		Better		Best		Total	
Count	%	Count	%	Count	%	Count	%
3	13.63	13	59.09	6	27.27	22	100

Observation : 14% of the trainees developed good, 59% of the trainees developed better and 27% of the trainees developed best quality of mood, scratch and colour Board.

Conclusion :It is seen that the quality of mood, scratch and colour board increases with the training programme.

Table no.14 Two and three Dimensional Sketching of leather goods

Good		Better		Best		Total	
Count	%	Count	%	Count	%	Count	%
5	22.72	12	54.54	5	22.72	22	100

Observation: It is observed that 55% leather workers could draw a 2 and 3 Dimentional Sketches of the leather goods in better way.

Conclusion: The leather workers improved their skill of sketching 2D and 3D diagram.

Table no.15 Ability of pattern development for leather goods

Good		Better		Best		Total	
Count	%	Count	%	Count	%	Count	%
8	36.36	10	45.45	4	18.18	22	100

Observation : It is observed that 45% leather workers developed pattern of leather goods. Only 25% leather workers developed best quality of pattern of leather goods.

Conclusion : Pattern making skill improves because of the various activities in the training programme.

Major Conclusions :

1. Leather good making occupation is hereditary. Leather workers are educated up to secondary level only.
2. Most of the leather workers had monthly income less than Rs. 10,000/-.
3. Most of the leather workers need various types of sketching, drafting pattern making skills
4. Almost all leather workers were keen to join training programme in future. They want short term training Programme.
5. The increase in positive feelings indicated that the training programme was effective.
6. The activities and multimedia package used in the training programme were helpful for changing in thinking process of leather workers.
7. The activity in the training programme was helpful in enhancing the skill of visualising various objects of leather goods.
8. It was seen that the skill for development of mood, scratch and colour Board, sketching of 2D and 3D diagram and Pattern making skill increases with the training programme.

Summary

The lifelong learning skills for any required sources of knowledge and skills, Leathers Goods workers are learn by doing, they learn in groups and from one another, Continuous Assessment in the training programme was useful for them to find new pathways for future learning, Initial training and ongoing professional development are linked and People have access to learning opportunities over a lifetime. Open and Distance Education is the alternative way to become a lifelong learner.

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