EMPOWERMENT OF RURAL WOMEN IN INDIA THROUGH LITERACY EDUCATION

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Abstract
This paper applies the methodology and theories of learning of Paulo Freire to the problems of agriculture extension and adult education (especially literacy) in Ujjain, Madhya Pradesh, India. This program is an on-going project. The purpose was to test the hypothesis that Freire's methodology as successfully demonstrated in Brazil, Latin America, Canada, and the United States, could be cross-culturally tested in India, and to assess whether the use of his method could result in improving economic status of so-called "illiterate" poor rural women. The research utilized both quantitative and qualitative data. Pre-test and post-test results and findings revealed that the dialogue method of problem solving and participatory research approach to literacy produces more active involvement of women in a democratic process to demand their rights and raise their voices for a political will to become self-sufficient.

Introduction
A major and fundamental problem for women in India is the high percentage (75%) of illiteracy (Directorate of Adult Education, 1981). A considerable literacy gap exists between men and women. As a result, women have been exploited and deprived of their rights.

In Indian society, gender bias is compounded by discrimination based on class, caste, and religion. Women have assumed a low status in society as a result of traditional beliefs. Gender bias promotes unequal allocation of resources, whether of food, credit, education, jobs, information, or training. Gender bias is a major cause of poverty because in its various forms it prevents women from receiving the education, training, health services, child care, and legal status to escape from poverty (Jacobson 1993, p. 62).

In rural areas both men and women engage in agriculture, but women are the major producers of food for household consumption. Women's labor produces 70-80% of the food crops grown on the Indian sub-continent (Jacobson 1993, pp.67-72, Gittenger 1990, Russo et al. 1989, and Chatterjee 1991). Farm women look after not only their household chores, but also a number of farm activities. Intensity of participation varies according to the nature of work, certain activities involve joint work, such as transplanting, weeding operations, and marketing of livestock. In these activities, the farm women play supporting roles with their men counterparts, whereas males seek, through educational opportunities, non-agricultural sources of income. Agricultural extension services in India ignore the country's farm workers who are women (Bennett, 1990). The growing time constraint imposed on women by longer hours they must work to make ends meet lowers women's status and sustains high birth rates. Women think more children will help with
farm work and increase family income. When they can no longer increase their own labor burdens, women lean more heavily on the contributions of their children (Jacobson, 1993, pp. 75-77).

The research was conducted in the region around the city of Ujjain in the state of Madhya Pradesh (M.P.). In Madhya Pradesh, 70% of the population lives in rural areas and the principal occupation is agriculture. The literacy rate for Madhya Pradesh is 22%, but the rate for women is only 15% (2% rural and 13% urban). (Literacy Statistics in India, 1981, p. 1). Improving literacy skills has a beneficial impact on economic conditions and social conditions and social development. One of the best solutions to poverty in this region is to improve human communication through literacy education. Proper planning, training, and implementation of literacy programs are essential for the empowerment of rural women.

Sen and Grown's thesis suggests that women's organizations and government agencies are a strategy for educating lower-level planners and functionaries, especially women, poor, and oppressed in the Third World societies. Only then will literacy be a meaningful result. (Sen and Grown 1987, p.88).

In the last decades of international development, women are recognized as a vital human resource. Any development program that proceeds without women's participation is self-defeating because of the potential loss of the contribution of this vital resource. In addition, ignoring women's participation in development has consequences not only on the family level, but also on some sectors of the economy such as agriculture where women are more involved in farm work than men. The consequence of gender bias at the family level is the failure of development programs to bring benefits to all members of the society. The consequences on some economic sectors are under-utilizing women's capacities for employing their resources inefficiently (United Nations, 1980, pp. 55-56).

Development strategies should strive to reduce gender bias and its consequences to solve many of the economic and social problems. The focus of adult education should be on such issues as violence against women, sex tourism, and sexual exploitation. Development programs should counteract the fundamental religious forces opposed to women's rights. Positive transformation of society takes political will with women as full and equal participants on all levels (Sen and Grown, 1987, pp. 89-96; Jacobson 1993, pp. 76-77).

Women must be active participants in planning, implementing, and evaluating development programs. Literacy education of women has been called by the World Bank one of the best investments a country can make for its future growth and welfare (United Nations, 1980, pp. 18-40).

**Purpose**

The purpose of the adult education training program was to train adult educators through Paulo Freire's dialogue methodology and then the trained adult educators teach adult literacy to the adult learners in Madhya Pradesh (India).

**Objectives**

1. Identify existing adult education theories and concepts related to adult education

2. Identify adult education teaching methods.

3. Develop a profile of adult educators and adult learners (women) to provide a guide of adult educators' and adult learners' characteristics in the development of the proposed program.

4. Develop a program to train adult educators to become effective adult educators.
Methodology

The work of Paulo Freire demonstrates that agricultural extension, adult education, and other facets of "development" can be part of a "Global social process" (Drummond 1975, p. 4). In Latin America, many prefer to call this approach "Liberation" (Gutierrez 1971). Freire emphasized the idea that only a "critical consciousness" of a problem will lead to an integrated plan and promise of future success in development work.

Even those who promote "working within the system" have pointed out that previous development efforts have failed because they were implemented "top-down" and did not start with the local people. Development efforts must be integrated with direct participation of the poor (Drummond, 1975, pp. 2-3).

Freire's methodology emphasizes that an awakening of critical consciousness, "concientizacao" (a word coined by Freire) is necessary so individuals can both critically analyze their world and become aware of their own dignity as human beings. Freire refers to this latter process as "humanization." Educators and students are regarded as coworkers and the teaching /learning process as "dialogical exchange" involving in-posing, problem solving, reflection, and action. Freire's methodology focusses on the human learning process in groups (Freire 1970, pp. 19-25).

Freire opposes the "banking concept of education." Knowledge is given by the educators to the learners, who passively receive it; man is in the world, not with the world or others. In a traditional educational system, education becomes an act of depositing in which the educator is the depositor, and the learners are allowed to receive and store the deposits. With Freire's approach, by contrast, the educational goal becomes posing and solving problems and their relationships with the world (Freire, 1970, p. 66).

Previous educational development programs (in health or other fields) have focused on content and have tried, without success, to impose "modern" ideas, derived from Western culture, on the cultures of developing countries (Stone, 1983).

In the fields of development, the work of Robert Chambers corresponds with that of Freire although Chambers presents his ideas through concepts and a framework more familiar to anthropologists. What Freire called "culture" Chambers calls "indigenous knowledge."

Both Chambers and Freire emphasize that 1) development must begin with the local people themselves; 2) the development process must begin with the knowledge of the local people; 3) there is an inescapable political dimension to poverty and development efforts; and 4) when the process of development begins with the people's knowledge and experience it will result in raising the "critical awareness" of the people. The poor must be organized, articulate in expressing their ideas, and active politically in demanding their share and their rights (Chambers, 1983, pp. 83-162).

Freire's (1970) "Pedagogy of the oppressed" enables the poor to look critically at their world, to overcome their "culture of silence", and to take control of their own destinies. Chambers feels Freire's approach has been an inspiration for those seeking a method of research in which rural people are actors rather than objects of observation and sources of data (Chambers, 1983, p.73).

Chambers suggests that outsiders can play positive roles within any kind of rural development programs by 1) starting with the priorities and strategies of the rural poor; 2) becoming partners with rural people in demanding more control of the benefits of development; and 3) examining the causes of poverty and constraints to development in order to discover opportunities to gain control over assets. Action must tackle poverty and powerlessness, allowing the poor to mobilize,
organize, and demand and maintain control over assets and income (Chambers, 1983, p.140).

The best approach for an outsider in development is to engage in dialogue with the poor and make an effort to learn what their priorities are. "Among these, a first step is for outside professionals, the bearers of modern scientific knowledge, to step down off their pedestals, and sit down, listen, and learn." (Chambers, 1983, p.101).

Chambers takes a look at poverty from the inside out and finds five clusters of disadvantages: Poverty itself which creates physical weakness (e.g., lacking food, sickness and accidents), vulnerability (e.g., disease, birth, death, wedding, and dowry) which leads the poor to live in isolation and that promotes powerlessness (lack of benefits and lack of ability to bargain) which perpetuate poverty. This five-point chain becomes a vicious circle of poverty or a "deprivation trap" in which the poor people are caught. They do not have power, political or economic, so that in the end they have no voice (Chambers, 1983, pp.103-112).

Chambers advocates a participatory research method for development in which local people and outsiders are partners, both doing the research together. Participatory research encourages a respect for the poor and a sensitivity to their situation. Chambers suggests that participatory research can shift initiative to poor people enabling them to use and develop their own skills, knowledge, and power (Chambers, 1983, p.74).

Freire's dialogue method (two-way communication) between teacher and learner together fosters participation in this process that is based on the following steps: 1) introduction of the theme; 2) definition of the theme; 3) analysis of the problem; 4) consideration of the cause or causes; 5) consideration of a situation to with the intent of changing it by taking action; 6) reflection on solutions and action.

**Procedure**

Freire's dialogue method for literacy training was used with success in Brazil and later in other Latin American countries. The author became interested in testing this model by applying it in an Indian context. Cross-culturally, Freire's approach has been tested in grass-roots communities in Canada and in the United States. Participatory research is both a method and a strategy of social investigation and social action within an adult education framework. Participatory research is compared with traditional research strategies, and defining principles are outlined, together with specific examples of its application and practical issues both today and in the future (Hall, 1984, pp.289-299). Participatory research, coupled with Freire's dialogue method of problem posing and problem-solving, was adopted in the literacy project in Ujjain, M.P., India.

In Ujjain, both governmental and non-governmental agencies are involved in adult education programs. Some are university-based and some are Panchayat (village-council)-based. These University and Panchayat training programs serve as the home base for a large agricultural extension and adult education program which works through rural education centers and in direct interaction with villagers or urban slum dwellers. The villagers/adult learners come to the centers for literacy training and other kinds of education dealing with issues in agriculture, nutrition, and population.

The team and the author visited the university centers to conduct "participant observation", and to collect background information. But since there is a total of 400 university centers and 613 Panchayat centers, visiting all of them would have been impossible. The 15 centers in villages and 15 in urban areas were randomly selected. At each center, the team intensively but informally interviewed the educators and the adult participants about their own educational backgrounds and their opinions about various social issues in Indian educational development. After interviewing, some of the adult educators
who showed interest voluntarily included themselves in the interdisciplinary team.

The "participant observation" work also carried over into the communities where the centers were located. In these communities, the team collected information on demography, socio-economic conditions, nutrition, health, child health care, sanitation, women's problems (such as dowry, divorce, and reproduction) and information on some specific cultural practices, such as early marriage with the adult participants at the centers. The researchers tried to obtain information on the relevance of adult education to the learners day-to-day lives, and on adult education needs of their communities.

Using the background information, a pre- and post-test questionnaire was developed by the research team with the involvement of the adult educators and learners in the local language. The questionnaire was reviewed for content validity and reliability by a research team of experts in agricultural extension and adult education. The data were collected from the respondents by using an ordinal scale with points ranging from 4 (high) to 1 (low). "0" indicated that the respondent was unable to answer the question.

The questions were grouped into four variables: 1) method, which deals with teaching and learning transactions such as lecture and dialogue; 2) content, which determined the subject information and the relevance of learning that subject; 3) material of teaching and learning, which pertains to physical materials used in teaching and learning; and 4) evaluation, which measures the effectiveness and success of the program.

Through the pre-test, adult educators reported the following problems with the adult education program at Vikram University: 1) the curriculum and instructions were created by higher administration supervisors and the project officers without the educators' input; 2) the curriculum was irrelevant to learners' needs; 3) the accepted teaching method consisted solely of an instructor lecturing to their students; and 4) educators did not have full freedom to teach according to learners' needs because their classes were randomly supervised and curricula handed over to them by respective project officers.

The research generated both qualitative and quantitative data. The qualitative data included: 1) photographs, paintings, drawings, and length in-depth interviews (usually tape-recorded) with the adult learners focusing on the "stories" of their lives so that learners' problems and needs could be included in the content of curricula; and 2) "participant observation" information used to form pre-test questionnaires. From the data of pre-test, a curriculum was prepared for the adult educators' training workshop.

The quantitative data were based on pre- and post-tests. The questions were answered using an ordinal scale, 4 (high) to 1 (low). A dot (.) was used when the respondents were unable to answer the question or when the answer was missing. The missing values were replaced by means of the samples.

The Wilcoxon Test (non-parametric test) was applied to the pre-and post-tests for both adult educators and learners. The Wilcoxon Test can compute the sum of the ranks for each of the samples. A procedure which was analogous to that used in the difference-of-means test. A difference-of-sums of the ranks for each different sample, subtracting from this difference a quantity represented the expected difference under the null hypothesis. This difference of differences, which is analogous to \( (X_1 - X_2 - (M_1 - M_2)) \), was then divided by the standard error in order to obtain \( Z \). The analogy was not perfect, since it dealt with sums of ranks rather than means of ranks, but the parallel with the difference-of-means test was obvious. A large numerical value of \( Z \) would lead to rejection of the null hypothesis (Blalock, 1979, pp.259-264).

A null hypothesis was used to show no significant relationship between any two variables (method, content, material, and evaluation), which were tested and rejected in favor of the alternative hypothesis \( (H_0: \text{no } \beta = 0, H_A: \text{sign. } \beta \neq 0) \) if the relationship proves...
significant. In each case the significant level of rejection was set at p = 0.05. The Wilcoxon Test was computed by SAS (Statistical Analysis System).

The research project was coordinated through these ongoing programs. The research was affiliated with Vikram University in Ujjain, and a multi-disciplinary team of professionals was selected from the University to assist with the research. The team along with researchers, designed and implemented a training workshop for one month. Fifty women adult educators from Vikram University who were already working as adult educators, introduced to Freire's dialogue method in the workshop. After the training, this new program was implemented at five centers. The newly trained educators went back to teach adult literacy to women. The adult educators served in their respective communities' adult education centers for two months, applying the dialogue method to their adult education programs. After two months, a post-test was conducted for both the fifty adult educators and one hundred adult learners to evaluate whether dialogue method was working for both the adult educators and adult learners.

**Results**

On the pre-test the adult educators and learners answered questions about the traditional education system in which instructions, lecture method, teaching material, and curriculum were prepared without educators' and learners' involvement in planning, and implemented by the government project officers and evaluation was done also by the government officers. Questions were related to the four variables. Many were unable to answer a question such as: "Are you familiar with Freire's dialogue method of teaching and learning?" Before introducing Freire's dialogue method, it was necessary to know how many educators and learners knew the method. For example, in the traditional education system, as it is mentioned above, content of the lecture training was not related to daily life problems, and learners had not participated in making their learning/teaching material. They expressed a need for change.

After the dialogue method training workshop for the adult educators, a post-test was given. The post-test had mixed questions related to the lecture training method and the dialogue training method in terms of the four variables. In all the four variables of the post-test (See Table 2) the scores were higher than the pre-test (See Table 1). There was a significant difference in the results and the Ho (null hypothesis) was rejected for all four variables.

Similarly, the pre-test given to the learners showed a small significant relationship (See Table 3). In the post-test, adult learners showed a more significant change than their pre-test scores (See Table 4). The mean score for the four variables is much higher in the post-test compared to the pre-test for both adult educators and adult learners. The null hypothesis is rejected because p < Z.

All the Ho variables showed significant results for the adult educators group. This indicated that the dialogue method of teaching was favored, the same being the case for the adult learners dialogue method of learning.
### Table 1

**Adult Educator: Pre-Test Analysis for Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Sum of Scores</th>
<th>Std. Dev. Under H0</th>
<th>Mean</th>
<th>Z</th>
<th>Signif.</th>
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<tbody>
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<tr>
<td>Content</td>
<td>50</td>
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<td>139.69</td>
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<td>Material</td>
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<tr>
<td>Evaluation</td>
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<td>135.91</td>
<td>34.61</td>
<td>1.5083</td>
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### Table 2

**Adult Educator: Post-Test Analysis for Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Sum of Scores</th>
<th>Std. Dev. Under H0</th>
<th>Mean</th>
<th>Z</th>
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<tr>
<td>Method</td>
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<td>0.01</td>
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<td>Content</td>
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<td>75.5</td>
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<td>Evaluation</td>
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<td>75.5</td>
<td>9.0302</td>
<td>0.01</td>
</tr>
</tbody>
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### Table 3

#### Adult Learners: Pre-Test Analysis for Variables

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<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Sum of Scores</th>
<th>Std. Dev. Under H₀</th>
<th>Mean</th>
<th>Z</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>86.13</td>
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<td>Content</td>
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### Table 4

#### Adult Learners: Post-Test Analysis for Variables

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<th>Std. Dev. Under H₀</th>
<th>Mean</th>
<th>Z</th>
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<tbody>
<tr>
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</table>

The quantitative data were based on direct observations, discussions with research team members and interviews with the adult educators and adult learners. These qualitative data overwhelmingly support the assertion that Freire's methodology does work well in Indian literacy programs in the sense that it brings about a more active and grass-roots participation of local people. There were three pieces of qualitative evidence to support this assertion. First, the research team and adult researchers observed the high level or enthusiasm exhibited by participants.

Quantitative data on pre-test and post-test results support the author's hypothesis using Freire's methodology. This active, enthusiastic participation was far beyond that observed at the centers during the "participant observation". For example, first adult educators and later adult learners, were able to pick up on the "themes" introduced through the dialogue method, and translate them into articulate and critical discussions of their own life problems. Second, the dialogue method and ideology were used to begin addressing problems between groups caught up in the education bureaucracy. For example, the adult educators of the project organized together to meet with the higher administration to bring about a more open dialogue about their problems in the adult education program. This kind of positive action is rare within India's development bureaucracies. Third, this adult education research project demonstrated that Freire's method and ideas can reverse the directions of communication channels in the development process. Before the introduction of the project, the communication channel was a top-down approach, but by the time of the post-test, the communication channel had become just the opposite--a bottom-up approach--which is very necessary for grass-root
development. This is convincing evidence that the dialogue method can bring about a more meaningful kind of development to empower women through adult education.

**Conclusion**

"Critical awareness" is a more democratic and holistic approach to development. Literacy is a tool to empower women. Literate people can more easily demand and protect their rights in order to change and improve their situations. At the same time they can organize themselves for their collective struggle. For poor people, genuine development means becoming critical of, and protesting against, the prevailing models of development. The literacy programs taught through Vikram University in Ujjain still continue to utilize the dialogue and participatory research methods. Each annual evaluation of the agricultural extension and education programs provides clear proof that there is increasing evidence that graduates of these programs are gaining more power and influence in their families, communities, and society.

**References**


