In his research report Bernd Overwien presents the results of a study carried out in Managua. Aim of the survey which he conducted in a poor district of Managua, was to establish how vocational training is acquired in the informal sector and what skills are necessary for economic survival. Mr. Overwien is academic member of staff at the Technical University of Berlin, Department of Pedagogy.

Bernd Overwien

Micro-enterprise in the informal sector of Managua and the long road to vocational competence

Introduction

More and more government and semi-government agencies are following the example of non-government organizations in Germany and are developing projects and programs for the informal sector. The growing attention directed to subsistence economies
with their multiplicity of income generating activities is particularly evident in the German Ministry of Economic Cooperation's new vocational training concept which clearly and specifically focuses on that sector. The efficiency potential of government dominated organizations in this area may be a debatable issue, but there is no question that little is known about the concrete vocational and social learning processes of people who work in the informal sector.

The following results of a study conducted in the capital of Nicaragua are meant to help resolve the disparity between political intentions and concrete action. The study focuses on the acquisition of vocational skills. The informal sector activities under investigation are often better described as fields of activity rather than professions. In the informal sector, economic survival frequently depends on faculties of a more general nature. Self-assurance, personal initiative, flexibility and perseverance are often just as important as specialized job related skills.

The persons interviewed owned small-scale businesses in »Barrio 19 de Julio«\(^1\), a slum neighbourhood comparable to the pockets of misery that exist in every larger Latin American city. The inhabitants live in extremely simple homes under poor sanitary conditions with all the implied consequences. Children in particular suffer from malnutrition and are highly prone to illness. A large part of the inhabitants are without work or underemployed. Only 15% hold formal jobs. The remainder earn a more or less meagre existence in the informal sector.

The scope of the present research included not only the direct process of acquiring knowledge applicable on the job, i.e. informal training of apprentices or assistants, working in the family, participating in courses etc., but also development of proficiency in organizing raw materials, production, and marketing. The initial underlying premise was that a target group from the informal sector would lack elements of basic education as well as numerous vocational, commercial and social skills. Observation of important stages in the career histories of the micro-entrepreneurs proved this to be a misconception that was corrected by a more differentiated interpretation. The issue was not so much the lack of specific abilities, but rather the complex and lengthy process involved in attaining them. Only a small number of those micro-entrepreneurs interviewed\(^2\) were younger than 25, and they were found to be working only in electrical and electronic repairs (radio, television and electrical appliances), or the recently expanding bicycle repair business. The majority of the respondents (40%) were between 26 and 35 years of age, after which came the 36 to 45 age group (26%). Another 16% were between 46 and 55 years of age, and 11% were older.

An examination of the educational background of the persons interviewed reveals the largest group of micro-entrepreneurs (40%) to have attended primary school for some years, albeit without finishing. The illiteracy rate among respondents, on the other hand, is relatively small (6%). Another 20% of the respondents had completed primary school. One third had attended secondary school, and half that amount had received a secondary school diploma. Two entrepreneurs had completed a course of study at a technical university.

At the time the present investigation was being conducted, the situation for many entrepreneurs in the informal sector had become particularly difficult. Structures were being influenced by neo-liberal policies that made reasonable credits for initial investments or expansion almost impossible to obtain. Entire sectors of the economy had virtually lost their marketing potential. The domestic leather and textile sector was practically paralyzed, for example, as the import of used clothing was permitted under an economic liberalization plan relaxing tariff restrictions. The situation has been complicated by an unfavourable internal political en-
vironment. While the government has been encouraging promotion of the informal sector, example given, Managua's mayor, a member of the ruling party, has been assailing informal activities by levying taxes to collect revenue. His tax examiners pose as customers and try to determine production and sales figures in small business undertakings. The information is stored in computers financed by US-AID. The victims are required to justify their accounting. In many cases business has become less and less profitable for all the extra time that extra bureaucratic requirements take up alongside the regular demands of work.

Without the help of the women from the community action group Movimiento Comunal, the adverse conditions would have made it impossible for me to trace the right respondents for my detailed questions.

Figure 1:

**Overview of study sample according to sector**

Radio, TV, Electrical Appliances 7  
Shoes, Leather 4  
Tailoring 4  
Auto Repair  
Carpentry, Upholstering 13  
Hairdressing, Barbering 10  
Welding 10  
Bicycle Repairing 10,  
Tire Repairing 10  
Food processing 10,  

Total number of micro-enterprises: 81

The informal apprenticeship and other forms of acquiring occupational skills

Occupational skills are acquired in a variety of different forms and stages. The process must be viewed under the broadest possible terms, for it involves more than just education and training in a strictly formal sense. It also includes so-called covert learning. Learning occurs as a by-product particularly for wage-labourers, household members helping out in family businesses, or persons working on commission. It was observed during the study that such phases of work not only provide the potential learner with experience that can be added to the primary acquisition of knowledge; they also provide him or her with specifically job related skills as well as with the entrepreneurial proficiency required for running a small independent business. It was found that our perspectives are slanted by experience peculiar to European settings. This caused uncertainty on the part of respondents when asked on the questionnaire whether they had completed vocational training as an aprendiz. In Nicaragua, as in other countries of Latin America, vocational skills can be acquired in two traditional forms: the apprenticeship of a aprendiz or apprentice, and the training of an ayudante or assistant.

The situation is complicated for the German observer by the fact that an ayudante will call himself a carpenter, a mason etc., although his knowledge, skills, level of proficiency and even attitudes often constitute only a fraction of the qualifications implied by the title according to German standards, even after a longer period of employment. The manufacture of rocking chairs, in which there is considerable division of labour, provides a good illustration of the role of ayudantes. After marking the lumber with the help of patterns, one assistant saws out the different parts. The second one sands down the wood. A third does the ornamental lathing work. Another does the wickerwork for the seats and backs, and still another is in charge of varnishing. The owner of the workshop
is often the only person with complete organizational knowledge of operations, i.e. what tasks are involved and how they are coordinated. Specific production techniques sometimes become carefully guarded secrets.

Many sectors offer apprenticeships — often the same ones that employ ayudantes. In such arrangements it is clear from the start that a longer working and training commitment is involved. Although aprendizes receive more training than ayudantes, they earn less or no wages. Many learners are children of the shop owners. Where family members are concerned, there is, of course, special interest in passing on high quality training. An apprenticeship is often a stepping stone to becoming an ayudante, and an ayudante can go on to accumulate further training from job to job in different workshops. There is no clear demarcation between the training of an aprendiz and the training of an ayudante. The terms tend to overlap, particularly as an ayudante can acquire greater proficiency if he is observant. This consequently calls for a differentiated approach.

Figure 2:
Acquisition of vocational skills

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship</td>
<td>33</td>
</tr>
<tr>
<td>Additional apprenticeships in other areas</td>
<td>5</td>
</tr>
<tr>
<td>Vocational, School, Courses, University Learning</td>
<td>29</td>
</tr>
<tr>
<td>Ditto in other areas</td>
<td>6</td>
</tr>
<tr>
<td>Assistant family</td>
<td>27</td>
</tr>
<tr>
<td>Assistant family, other areas</td>
<td>3</td>
</tr>
<tr>
<td>Self-employed</td>
<td>12</td>
</tr>
<tr>
<td>Self-employed, other areas</td>
<td>0</td>
</tr>
<tr>
<td>Wage-earner</td>
<td>39</td>
</tr>
<tr>
<td>Wage-earner, other areas</td>
<td>10</td>
</tr>
</tbody>
</table>

81 micro-entrepreneurs, some of whom fall into more than one category

The problems and questions touched upon above have important implications for interpreting the concrete results of the survey. Affirmative answers were given by thirty-three of the eighty-one micro-entrepreneurs interviewed to the express question of whether they had had apprenticeship experience. Thirty-nine had worked for a time as an assistant, during which they had the opportunity to acquire or improve their knowledge. Although a certain amount of overlapping was inevitable in the responses, this does not alter the relatively high significance of informal training in the process of acquiring proficiency, whether during an apprenticeship expressly defined as such, or during the time invested to break in an assistant. Twenty-nine of the eighty-one respondents acquired their skills, at least in part, in non-formal as well as formal settings, i.e. in a vocational school, in courses of religious, private or government organizations, or at a university. Twenty-seven respondents acquired necessary knowledge and experience by helping out in a family business. Overlapping occurs here, too, since there are many aprendizes as well as ayudantes who work and learn in their families. Others, 12 at least, earned their living on their own account for a time but without a regular workshop, although not before having acquired a certain level of vocational competence through informal or other training. For some, the brevity of the informal training period warrants the assumption that the phase of self-employment was also a time of autodidactic learning. According to a 1984 survey of close to 1800 informal businesses in Managua, which was marginally concerned with the acquisition of skills by small-scale business operators, at least 10% of the male and nearly 20% of the female respondents had acquired their skills autodidactically. The findings of the earlier investigation on the significance of informal training are also confirmed by the present study. Current findings further support the conclusions of the older investigation on the higher relevance of this form of skills acquisition for men and its lesser significance for women. None of the women engaged in preparing foods for sale to small restaurants or street soup kitchens had attained their relevant knowledge through
an apprenticeship. Nine of the ten women interviewed had worked for a longer time as a household member in a family enterprise, and a certain number had extended experience in domestic service.

The situation is altogether different in another of the predominantly female trades investigated: the hairdressing and beauty care sector. All of the operators interviewed had completed a course, including the one male respondent who was mainly engaged as a barber. Almost all of those courses were taken at private institutes where fees were charged. Some of the respondents had also worked in the family or had further training in an informal training situation. One of the two women respondents engaged in the repair of radios, televisions and electrical appliances had received a university degree in engineering, the other had completed a course of study at a technical school. Two of her five male colleagues had also attended similar vocational schools, one was an engineer, and still another had worked as an apprentice for three years and had successfully completed an extended distance education course. Only one micro-entrepreneur, whose main specialization turned out to be the construction of a simple hot plate, had no formal educational background. Formal forms of learning are found in greater number only in the welding and seamstress trades. The seamstresses interviewed had either attended a school for the period of one to two years, or had attained a corresponding level of learning through several separate courses. Practically all respondents had accumulated several years of experience in formal businesses in the same trade, where they acquired or complemented their skills.

Four of the welders interviewed had graduated from a vocational school or had taken courses in welding that lasted up to three years and went into depth on the subject of metals. Three welders, two of whom had attended a vocational school, had worked for longer stretches of time in family businesses. Five welders, some of whom made wrought iron grills and others simple bed frames, had completed an informal apprenticeship. One of those five, who was also one of the welders that had attended a technical school, completed only a 6 month apprenticeship; the apprenticeships of the others lasted three and eight years, or six months.

Another trade in which some of the respondents (3 of 13) had formal training experience was carpentry (the manufacture of furniture, doors and windows). Nine such carpenters had completed one to two years of informal training, including two who were also vocational school graduates — one from a two-year, the other from a three-year school. Three carpenters indicated that they had not had any apprenticeship, course or school experience, and that they had learned their skills during long years of work in businesses run by their families.

In one case it was not possible to pinpoint how a certain mechanic had acquired his skills. He had just started. Apparently it was other skills that were decisive in his case. He indicated that he had worked for twelve years in municipal administration, and had had administrative jobs in two ministries. Apparently that experience served as a stepping stone for him to go into business for himself and purchase know-how. One of the other two respondents, who had been running his own business for five years already, had worked for 15 years in a formal business, where he started as an ayudante and went on to become a mechanic.

In the leather tooling and processing trade, the four micro-entrepreneurs who were interviewed had acquired between six months and a year of informal apprenticeship experience. Two had worked in businesses in the formal sector, one for 10 and the other for 24 years.

Four of the ten respondents in the bicycle repair business had acquired their skills through an informal apprenticeship. The training
periods varied in length from six months to eight years, and are a clear indication of the above described ambiguity of the terms *aprendiz* and *ayudante*. After completing a six-month apprenticeship, one of the respondents in question repaired bicycles for three years on his own account, albeit without a regular workshop. Occasionally an individual from a related field of activity goes into the bicycle repair trade, like the owner of a workshop who had worked for five years in a factory that made metal products.

Two respondents who repaired tires acquired their job skills through an informal apprenticeship. One spoke of a seven-year apprenticeship that probably was more like the position of an assistant in the sense of an *ayudante*. Two tire repairers had worked in tire repair shops as *ayudantes*, one for three years, the other for six. Another had had eleven years of experience as an employee in a mechanical workshop. In the case of the others, the decision to go into business for themselves apparently was not so much a matter of job-specific skills. Two, example given, had been farmers, and one had been a messenger in a government agency. Tire repairing, on the other hand, is not such a highly specialized trade.

Questions on apprentices working in the various micro businesses at the time of the study elicited a number of interesting aspects about informal training. The duration of training varied from a few months to three years, the average apprenticeship taking from one to two years. In isolated cases training lasted up to six years. Many small operators set a specific amount of time and consider training concluded at the end of that time. Others observe the quality of skills, proficiency and work attitudes, and determine the end of the training period according to progress in learning and experience. Still others combine both time and degree of accomplishment as criteria for completed training. Some even conduct actual exams.

Acquisition of important aspects of competence of small operators

Small operators were asked for a personal estimation of how they had acquired important know-how and skills for their profession since no satisfactory alternative was available to obtain such information. The incidence of illiteracy was minimal, and basic skills, like reading, writing and arithmetic, were said to have been learned at school. The personal estimation of other skills proved to be interesting. 59% of the small operators interviewed said that they had not been trained to teach, in spite of the fact that almost all did employ apprentices or assistants. Some felt that they had learned how to teach in a course, or during their own informal training, and 31% said that they had acquired teaching skills through practice. A significant number of respondents indicated that they had not been trained to work with new materials (28%), use new machines (33%) and repair machines (39%). The greater percent of respondents, however, said that their proficiency in these areas came from practical experience. A few considered training or a course important in that respect. There were only a few respondents who stated that they had not acquired the ability to deal with customers and suppliers. The majority considered practical experience the most important aspect in this connection. The number of respondents who felt competent to apply for credit is relatively small. At least half had learned some form of bookkeeping through practical experience, 39% do not consider themselves capable of keeping records, and the remainder responded that the knowledge they had acquired in this area had been learned at school, in a course, or through informal training. 12% knew nothing about cost analysis. There were others, however, who had become acquainted with accounting at school, in a course, or during training. The majority said that they had learned to keep records through practical experience in their daily work routine. One area in which most of the entrepreneurs interviewed lacked know-how was ad-
vertising and product presentation. 64% had had no training in that area, some had learned about it during their training, and 34% had learned what they knew in that connection through practice. At least 43% claimed that they had not learned to organize production, whereas 48% consider to have learned their techniques through their own practical experience. The contradiction inherent in the last statement on the part of individuals who claimed that they had not learned to organize their work can be interpreted as an indication that they consider their organizational methods subject to improvement.

On the significance of the various stages in educational and work history

The chances for a person to start an informal business depend largely on his or her opportunities to learn the skills relevant for the chosen field of activity, whether those skills are directly related to the trade, or whether they constitute know-how in a broader sense. An appropriate background of training is acquired in various places of learning that at the same time correspond to various stages of life. Every field of activity has its own particular career patterns. Formal schooling of a general or vocational nature is more important in some fields, and less so in others. For technical services like the repair of radios, televisions and electrical appliances, it is evident that the required theoretical background demands a comparatively high level of formal schooling. Careers then follow a route of formal and in some cases informal vocational training, a phase of independent labour without a regular workshop and periods of wage labour. Informal training only plays a minor role here.

The apparent importance of formal schooling in the hairdressing and beauty-care sector seems surprising at first. On the whole, job related skills are acquired in non-formal courses offered by private institutes, and sometimes during shorter phases of informal learning and periods of employed labour. However, it appears that these are not the only skills that are required. The fact that virtually all operators in this area have had longer histories of formal schooling indicates that an important role is played by know-how that tends to be acquired indirectly during the course of a formal school education — communication skills and organizational competence for example. It is interesting to note that in the personal estimation of the operators interviewed in this sector, hardly any considered school to have significant value in the exercise of their occupation. Another important aspect, however, is the fact that vocational options for women are so severely restricted. Only a few areas of activity come into consideration due to rigid role concepts. This may help to explain the longer than average history of schooling in the sector. The hairdressing and beauty care trade probably attracts more women with more education precisely because there are so few other alternatives.

Non-formal occasions for vocational training are also important particularly in sewing and welding. It is conspicuous in the welding trade that a large number of operators had worked and learned for longer periods of time in businesses run by their families. In such situations it is difficult to distinguish between the phases of learning from family and informal apprenticeships due to the fact that young people frequently go through informal apprenticeships in businesses run by their families. Informal learning phases are important in the furniture and door making trade, in leather tooling and processing and in bicycle repairing. Craftsmen in those trades generally gather further experience by working for comparatively longer periods as hired help before they go on to open small-scale businesses of their own.

Some of the operators in the tire repair business said that they had completed an informal apprenticeship. In their case, however, it was particularly difficult to distinguish the periods of work as as-
sistant from apprenticeships, in all likelihood due to the area’s limited range of activities. It is notable in this area that formal schooling apparently plays a lesser role in the prerequisites for entering into business, and that before opening their own businesses, operators tend to work for wages for extended periods. Another trade where amount of schooling is relatively unimportant is the processing of food for sale, an area dominated by women. All the women interviewed in this area had acquired their entrepreneurial skills through family oriented work and while working for wages, often in domestic service.

To sum up

When it comes to discussing measures of support for the informal sector, the creation of small-scale businesses is frequently cited — or is tacitly implied — as the goal. The question arises as to how such a goal can be reached with help of educational measures and whether it should remain the only goal. It has meanwhile become widely accepted, however, that measures to promote the acquisition of skills, including commercial competence, are largely futile when it comes to the establishment of micro-enterprises unless there is counselling and access to credit to start a business. Like many concepts about the informal sector, this statement needs to be qualified. The study undertaken in Barrio 19 de Julio demonstrates that many small-scale entrepreneurs got their start from their savings or with financial assistance from relatives. The fact that those funds were limited, however, tended to postpone their plans to acquire a business of their own. At the risk of sounding trite, it must be said that the mere transmission of know-how certainly does not suffice. What is also clear is that it is not just purely occupational skills that are lacking, a fact shown by the results of the study in Managua.

The postulates on which the survey was based were not confirmed in every respect. Personal and occupational self confidence and a command of social skills, for example, were found to be more common than originally anticipated. The process of acquiring such competence, however, is time consuming and frequently culminates in a lack of initiative for new learning. Most micro-entrepreneurs had at least a minimum amount of basic education, although as already stated, the amount and relevance of formal schooling varies substantially from trade to trade. A positive balance in this respect can be ascribed to the educational policies of the former Sandinista government. Considering the substantial cutbacks that are currently undermining the educational budget, noticeable deterioration can be expected. There is definitely a need to transmit information that will help micro-entrepreneurs develop know-how directly related to their work — knowledge needed to comprehend simple economic connections, optimize marketing possibilities, apply the principles of cost analysis and better organize the processes of production. All of those elements must be incorporated within projects and programs geared to the informal sector.

Acquisition of skills through practice, following the principle of trial and error, is probably the least economical method of learning. The present study goes to show that the road to self-employment is marked to a large degree by learning of this type. In view of the frequency of negative school experiences, measures to tackle this problem should not be suggestive of school by employing all too well-known didactic-methodological concepts. According to experience, traditional forms of schooling have their own set of dynamics in which teachers trained in a traditional sense frequently tend to get caught up in reproducing established concepts. The experiences of «popular education» offer an alternative to such formal methods. A wide variety of experiences have meanwhile accumulated in working with comparable target groups, although with goals that were less directly associated with the vocational sector.
In designing projects, it is not enough to ponder over and implement concepts of social integration and (labour) market relevance. Planning must also take into consideration post-training perspectives. The establishment of a small-scale business cannot be the only goal. Perspectives can include employment for wages in such a business, or self-employment, even if it means considerably less income than can be earned by a micro-entrepreneur in the same field of activity.

Proceeding on the premise that the status of self-employment is an aspired goal, another possibility to consider might be a program designed to guide individuals step by step towards the attainment of that goal, while providing them with advisory services during the phase of transition to economic independence. It has proven to be generally unfeasible for a person to set up his or her own business after training without extended opportunities to gather additional experience. This is evident in the micro-entrepreneur’s long road to (relative) success. Whether the goal is to establish a cooperative, to become self-employed, or to become an independent micro-entrepreneur, the initial phase requires a gradual loosening of reigns. In other words, project concepts should include advisory services and continued provision of certain means of production among other things.

It cannot be stressed often enough that the economic situation demands measures with the greatest potential to generate employment. Unemployment as we know it only applies to a few. People whose lives depend on the informal sector have to keep on working to earn a living, and time becomes a valuable commodity even when dedicated to education. It is therefore necessary for them to be able to experience immediate success. Projects and programs have to remain flexible and be adapted to the economic and cultural conditions of the target group. It is important to have an inside look at the workplace in the field of focus together with the people who work there, and the ideas to be implemented have to be discussed based on experience. The yardstick to determine the relevance of the activity in question must be the concrete market for the products and services to be produced, for normally the future micro-entrepreneurs will have to take charge of marketing once they are on their own.

In most fields of activity, the micro-entrepreneurs interviewed were comparatively older people. Their career histories all followed a similar pattern. Virtually all of them had spent relatively long periods of time working as an aprendiz and ayudante, or working in a business run by their families. A time of waged labour followed. This is indicative of the fact that considerable skills and experience, both of a technical and a broader nature, must be acquired before a small-scale business can be established. Measures to develop those skills should seek to reduce the length of time this process takes, promote more in-depth learning so as to improve job prospects, and in addition improve the generally low quality of the products. In many areas the most effective place to start would seem to be informal training situations in order to take advantage of their existing structures.

There are various obstacles to implementing an educational concept adapted to the informal sector. It is often difficult to find good instructors. Appropriate educators are normally those who stem from the relevant field and know the range of technical skills required in the area. Innovations are often necessary, however, that could present problems to the potential instructor with experience who is sure of his or her craft or trade. It was found in the study undertaken in Barrio 19 de Julio that a large number of craftsmen feel no need to improve their skills.

Special problems arise when the target group is in the adolescent or young adult age group. That group faces additional difficulties in connection with training and evaluating chances for the future. Often it is not so easy to keep young people within one specific
neighbourhood or a local project where social relationships have already been established. Their personal perspectives frequently develop indirectly, example given when their friends or partners live in a different location, or when they move etc. Adolescents normally go through a developmental phase of searching during which commitments are hard to make. Projects and programs of the type in question therefore also need to make provision for the cultural and social needs of the target group, particularly where young people are concerned.

In order to achieve these objectives and at the same time to be in a favourable position to deal directly with problems as they turn up, it is advisable to combine efforts with a local organization that is well acquainted with the environment, is an established entity, and is in touch socially with the target group, the ones who should preferably be in charge of making the decisions affecting the organization, or at least participate in the decision-making process.

Footnotes
1. The structured interviews were conducted between October 1991 and March 1992. The interview sample comprised 81 micro-entrepreneurs, 24 of whom were women and 57 men.
2. Respondents were selected according to the following criteria:
   - the activities were all located in a single neighbourhood (a parallel sample was interviewed in a similar area for the sake of comparison);
   - the activities had to involve a sufficient degree of technical complexity since the object of the survey was to investigate activities where training was a relevant factor;
   - the study was intended to be directed at both male and female micro-entrepreneurs, although women were partly excluded as a result of the preceding criterion;
   - the sample was intended to include at least 10 establishments in each line of business, which it succeeded to do in six fields.
4. The fact that some of the respondents did succeed in reducing this time through formal training does not alter the basic set structure.

Abdul-Rauf Adebisi experienced the following story as a adult educator in a small village in Nigeria where he helped to establish an Adult Education Centre. Dr. Abdul-Rauf Adebisi holds a doctorate in French and teaches French Literature, Francophone Negro African Literature and French for International Studies at the Ahmadu Bello University in Zaria, Nigeria.

Abdul-Rauf Adebisi

Experience of a French adult educator

Upon completing my Higher School Certificate, I intended to proceed to university. However, poverty hindered my plan. I looked for a temporary teaching job where I could earn some money to continue my education. I wrote to the Local Education Authority (LEA) which recruited teachers for primary schools and adult education centres within the area. Every morning I called at the Authority's office to check if I had been employed. Days ran into weeks. My name appeared on the board after a month.