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Review

Implementation problems of apprenticeship training

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The implementation of apprenticeship training program may start by setting clear objectives that can pass through a series of steps. Accordingly, it begins by conducting needs assessment. In doing this, it collects data to assist people in fulfilling their training needs. Cantor (1997) describes these steps as Mega, Macro and Micro levels. At Mega level, we ask a question of how apprenticeship training can meet the needs of the business community. In the next Macro level, we try to entertain the needs of both private and public TVET institutes by asking questions on how apprenticeship training assists to meet the instructional needs of the institutions. At the Micro level, the concern will be on how trainees' apprenticeship can help them to meet their training needs.

Keywords: Implementation, Apprenticeship, and Training

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INTRODUCTION

The implementation of apprenticeship training program may start by setting clear objectives that can pass through a series of steps. Accordingly, it begins by conducting needs assessment. In doing this, it collects data to assist people in fulfilling their training needs. Cantor (1997) describes these steps as Mega, Macro and Micro levels. At Mega level, we ask a question of how apprenticeship training can meet the needs of the business community. In the next Macro level, we try to entertain the needs of both private and public TVET institutes by asking questions on how apprenticeship training assists to meet the instructional needs of the institutions. At the Micro level, the concern will be on how trainees' apprenticeship can help them to meet their training needs.

Muller and Gangl(2003) emphasize only two levels (the macro and micro level) by placing the needs of workers and potential employers under one category. They argue that these two levels are inseparable. Thus, trainees leaving the educational system aspire for a job that can

return for their investment in training. The employers on their part expect to get trainees who are more skillful. As a result, they insist that we should consider the needs of these two groups together. Although there appears a difference among scholars in treating the apprenticeship needs of the stakeholders, it seems imperative to conduct needs assessment prior to the implementation of apprenticeship training.

The implementation of apprenticeship training cannot be seen in isolation from the TVET program since it is part of it. The implementation of TVET, in turn, can be perceived as a vehicle to realize the plans set by training institutions at national or institutional levels and to effectuate the consensus reached even at the global level on TVET (international convention on Technical and Vocational Education by UNESCO in 1989). TVET implementation is, therefore, an instrument that ensures the achievements of the objectives set in TVET in general and apprenticeship training in particular.

Various factors can contribute for the unsuccessful implementation of apprenticeship training. Among these, we can mention the failure to maintain partners'

coordination. It is true that the implementation of apprenticeship training should be supported by institutional arrangements among unions, industries, training providers and state regulatory authorities. The training arranged in this way may last for some months to years of training and has got a kind of recognition and acceptance. It is accompanied by a kind of wage system arranged with industrial sectors. This kind of arrangement requires specific agreement of the partners. However; in the actual practice the remuneration of apprentices varies from country to country and even among individual states (Field, Hoeckel, Troy & Moonhee, 2008).

In a research conducted in India (Aggarawal, 2004), some implementation problems related to TVET were identified. This research, in fact, lacked clarity in reporting on when, where and how it was conducted. However, it has mentioned some important points that could impede TVET implementation program. When subsumed, they can be categorized into the following major issues: problems related to college facility/ lack of equipment and apparatus, lack of suitable books, learning and teaching materials, problems related to trainees lack of experience, presence of heavy work load and failure to choose appropriate occupation, problems related to teachers' lack of professional competence, problems related to college administrative and supervisory body and problems related to lack of cooperation with various institutions.

Another country specific research on the implementation of apprenticeship training has identified the other implementation challenges. In a research conducted in England, the implementation of apprenticeship training program, according to a given framework, was found not to meet its quantity and quality aims. Its contributing factors were mentioned as weakness in clear definition of what constitutes apprenticeship training, its educational components, lack of employee involvement and failure to recognize the other options of college-based TVET trainings ahead of time (Brockmanna, Clarke & Winchb, 2010).

On the other hand, in a research to identify and explore the perceptions of individuals, unions, employers and governments in Canada, it was discovered that various factors can negatively contribute for accessing, maintaining and implementing apprenticeships. These generic barriers have been grouped into nine categories, each reflecting negative conditions for apprenticeship implementation (CAF, 2004): negative attitudes toward apprenticeship and some trades, a lack of information and awareness of apprenticeship, difficulties in accepting workplaces or training environments, due to problems related with apprenticeship costs to individuals, employers and unions, due to problems related with lack of resources to support apprenticeship, presence of weakness of workplace-based and technical training, and due to lack of regulations governing apprenticeship The

methodology used in the CAF's research report focused on secondary data and supported by primary data gathered from stakeholder interviews and focus-group discussions. The report based itself on qualitative data and could not show the true picture of the problem all over Canada. It thus needs to examine and discuss the problem as it is seen by the public further. However, all the factors mentioned above contribute, either positively or negatively, for the success of apprenticeship training program since it is one component of TVET.

Despite the general facts mentioned above, it seems necessary to discuss some of the specific factors that can affect the implementation of apprenticeship training. Due to the magnitude of their influence on the implementation of apprenticeship training, we have identified the following factors to be the most influential ones.

A/ Lack of legal framework

Governments, as main stakeholders in the implementation of TVET strategies, can play their discrete roles by enacting laws. This kind of support contributes for the successful implementation of TVET by facilitating the following conditions (UNEVOC, 1999): establishing strong relation between the public and private sectors, creating national qualification framework, balancing the supply and demand side of TVET program, ensuring the coherence of the training program and linking the formal and non-formal TVET program.

However, in a research conducted in Mexico, employers reported that the lack of legal arrangements was found to be a barrier to the expansion of workplace training in TVET.

Accordingly, the need to establish an act was recommended (Kis, Hoeckel & Santiago, 2009).

Due to the fact that the law passed either by the national or regional body, many state the conditions under which technical, vocational education and training, should take place either in schools or enterprises and their respective facilities (Cedefop, 2005). As it can practically be observed, the current TVET delivery system is accomplished with a close cooperation of partners. Due to this reason, these two bodies (training institutions and enterprises) enter into agreement for the implementation of TVET practical attachment programs. This kind of agreement should be defined by law.

The law also defines the rights of individuals and institutions in TVET. It explains the responsibilities of state and other administrators. The law specifies the different actors of the TVET program. It also defines the duties and responsibilities of each actor. Within this framework, each of them will be required to execute its duties.

Moreover, the law specifies legal obligations of the main players involved, introduces a uniform system for evaluating the quality of TVET courses, introduces

incentives for all entities involved (supervisors, trainees, employers), introduces work-based training schemes, introduces a levy system, provision of training for the unemployed, and stipulates rules for operating an information-counseling system which would facilitate understanding of the TVET provision (Cedefop, 2005).

However, the presence of a law by itself can't bring the desired results. Hence, the law should be translated into practice. The translation of laws into practice may at times face its own challenges. The causes for these challenges may vary. In line with this, a strong Monitoring and Evaluation system should be established.

B/ Inadequate financial resource

Traditionally, the burden of the TVET financing system was left alone to the trainee themselves, to the enterprises and to the state (Ziderman, 2001). However, to date the public spending of TVET, as observed in some nations, is high and the most common basic funding model consists of two separate systems only. The first kind raises public and private funds to finance public provision of training and the other funding system relies on private funding for private provision. In public provision, the sources of funding are direct budget allocations, cost recovery (trainee fees), and in some countries, revenues from a training levy paid by businesses. In private provision, the sources of funding are tuition and fees paid by trainees (EC, 2006).

However, the financial requirement for running TVET program is expensive. Due to this reason, the need to cover the cost of public TVET institutions is high. This approach causes severe budgetary burden on the part of public resources. Since financing for training in TVET comes from direct budget allocations of the treasury to the training authorities (EC, 2006). As a result, various financial generating means have been suggested in the area. Cost sharing method has been proposed and implemented as one means of financial source in some countries of the world.

The justification for cost-sharing with trainees is that since TVET graduates benefit from higher incomes, due to increased employability and better payment, they should contribute to bearing the cost of TVET. On the other hand, if TVET fees decrease then it may exclude some trainees from accessing TVET program. These risks can, in fact, be mitigated by selective exemptions and selective grants to trainees. This trend creates a considerable burden on public budgets when the number of deserving candidates increases. However, equitable cost-sharing through loan schemes can be implemented to solve this problem to a certain degree (GTZ, 2006).

There is also another method of raising finance for TVET program in the form of tax raised by apprenticeship providing institutions. This kind of tax system is imposed by governments. Accordingly, enterprises can raise fixed

percentile value of finance in the form of levy system for TVET programs. Stakeholders who are responsible for this payment raise the money too (GTZ, 2006).

Another way to develop resources required in the TVET system is increasing the income generating capacities of TVET institutions. Various incomes generating schemes can be designed and implemented in each TVET institution. This kind of approach enables TVET institutions not to stick to one means. This may be realized by improving the management of TVET institutions and by introducing regulations regarding the use of generated funds (MoE, 2008).

Income-generating schemes can also be realized by selling TVET services to enterprises in an effort to diversify and expand sources of income. However, this kind of income generation system raises concern which subsidized public provision of training that creates unfair competition with private providers who must compete on the basis of cost (EC, 2006).

A different financing mechanism was proposed by UNESCO-UNEVOC (as cited in Simiyu 2009). These mechanisms were enterprise financing for training its own labor force, private and public sponsored financing, and international donor assistance.

The other method of generating financial incentives for trainees who participate in the TVET is motivating them to stay in the training. In countries like Belgium, the Czech Republic, Germany, Estonia, Ireland, Spain, Italy, the Netherlands and UK, money is directly allocated to trainees. This approach enables learners to take part in the training. Besides, it contributes for the development of positive attitude, motivation and participation of trainees toward TVET (Cedefop, 2010).

A new funding mechanism, such as performance-based allocations for training institutions, training funds directed to end-users of training services, and increased cost-recovery with targeted assistance to the poor should be applied. This would require empowering training centers, letting active participation of the private sector in the management of the training fund, establishing new management models for training centers development of a voucher system, implementing new indicators and benchmarks for measuring performance, and creating a field for public-private competition for funds (EC, 2006).

To sum up, as seen above, there are different ways of generating fund for the implementation of apprenticeship training. These are proposed and applied by various institutions. However, the choice of applying the right method depends on the consideration of different conditions of a given country. Despite this fact, the implementation of TVET or apprenticeship training ever requires finance.

C/ Lack of stakeholders' participation

It is crystal clear that stakeholders are groups and individuals who have legitimate personal or professional

interest in the operation of the scheme (Hodkinson, Sparkes & Hodkinson 1996). The term is more popular in TVET and may mean persons or groups that have a stake in TVET activity. It includes a wide social groups like employers(both private and public), the business sector, workers and employees represented by Agency and professional associations, public and private TVET providers, civil society and NGOs, people living and working in rural areas represented by relevant associations, teachers/instructors in the TVET system, trainees and their families, and public authorities in charge of sectors relevant for TVET; notably, education, capacity building, agriculture, trade and industry, labor and social affairs, health, youth and sports, and finance. These groups could form the TVET Council (MoE, 2008; Hodkinson, Sparkes & Hodkinson, 1996). Each of these groups plays a unique role in the implementation of TVET program in general and apprenticeship training in particular.

The number and kind of stakeholders who belong to each sector may differ depending on its nature of the trade. Stakeholders who may deserve for the education sector may be different from the agriculture or health sectors. Furthermore, the role of each of these stakeholders may differ from country to country. For instance, in Germany, all stakeholders jointly set the curricular standards, practical requirements and further particulars for TVET (Kathrin, 2010).

There is also a need to involve all stakeholders of TVET in the planning, policy making, training delivery and monitoring and evaluation system (GTZ, 2006). This may, in fact, result in the successful implementation of the TVET program. Besides, stakeholders will develop the feeling of belongingness to the TVET program as a whole. If all stakeholders of TVET program are thus involved in all aspects of the design of the program, its implementation will be relatively easy.

For effective linkage of the TVET curriculum and future workplace ethics, skills and positive attitudes at workplace; it is advised that all stakeholders of education including industry and employers be involved in the process of curriculum development (Anamuah-Mensah, AsabereAmeyaw & Dennis, 2007).

From policy point of view, some major roles of stakeholders for TVET program, in the Ethiopian context, were also cited (MoE, 2008). These functions of stakeholders were policy development and policy drafting and reviewing through participation in relevant bodies and panels, financing through contributing resources to the TVET system, quality assurance through active involvement in the setting of occupational standards and conducting occupational assessment, TVET delivery through the provision of training to their own staff, offering internships to trainees and providing apprenticeship training and Monitoring and Evaluation through participation in TVET councils at federal and state levels

and taking over key roles on the Management Boards of TVET institutions.

However, there is a major criticism by educators on the weak link between TVET institutions and stakeholders especially with the enterprises. Thus, some enterprises/industries do not trust schools in teaching trainees what they know. As a result, enterprises/industries have little faith in the training style of TVET institutions as they lack skill. TVET institutions, on the other hand, question the interest of enterprises/industries toward them since they do not consult them the skill demand. This kind of negative attitude hampers the ultimate production of skillful person (Olson, 1997).

In a research to investigate the training requirements of an industry, it was proposed that proper collaboration between the industry and TVET institutions is vital in the face of changing technological trends. Its implication is that the link between the TVET training institutes and the potential employing institutes should be strengthened to produce graduates with the right kind of occupational skills (Omondi, 2008).

D/ Weak Monitoring and Evaluation system

From theoretical point view, it can be argued that Monitoring and Evaluation (M&E) of any planned activity provide better means for learning from previous experience. Improving service delivery, planning and allocating resources, and demonstrating results as part of accountability to key stakeholders are beneficial. However, the choice of using the tools and methods appropriate for any given context will depend on various considerations. These include the uses for which Monitoring and Evaluation is intended, the main stakeholders who have an interest in the Monitoring and Evaluation findings, the speed with which the information is needed, and the cost (World Bank, 2004).

In view of this, the M & E process in TVET system may target on services, plans, and resources allocated, and outcomes expected from each TVET institutions. In fact, the degree of performance differs from training institution to institution. Over the past years, TVET reforms and programs have been implemented in some corners of the world. The main intention of this effort is to produce skilful workforce based on the competence standards set by the enterprises/industries. Consequently, a skilful manpower, along with the middle level manpower demand, was managed to be produced. The impact of the program or TVET performance on the country's economy and on the life of trainee requires the selection and application of the right Monitoring and Evaluation tools.

However, there exists misconception on the clear meaning of the terms of Monitoring and Evaluation in the TVET context. This was due to the fact that some people may perceive monitoring as a task that uses unorganized

form of collecting data on some indicators. On the other hand, some people may not consider it as a continuous Activity that can generate information for the management and the main stakeholders of the TVET institutions.

Evaluation is not also perceived as an organized assessment of an ongoing or completed TVET training program. Basically, its aim is to determine the relevance and achievement of objectives, development efficiency, effectiveness, impact, and sustainability. It gives information on where the process of undertaking is at a given time in relation to the expected outcomes. It provides evidence of why targets and outcomes are or are not being achieved (OECD, 2002a) (as cited in Kusek & Rist, 2004).

A close scrutiny of Monitoring and Evaluation in the TVET context shows a different situation. TVET programs are very often not planned to meet observed or projected labor market demands. This is due to the fact that there is no tradition in forecasting middle level human labor requirements in some countries. Most of the time, the emphasis appears to be on helping the unemployed to find jobs without any critical attempt to match training to available jobs. Consequently, many vocational school graduates find jobs or find themselves in jobs for which they have had no previous training (AU, 2007).

From policy point of view, non-targeted skills development can also be seen as one of the major weaknesses of the TVET system in many African countries. Training institutions do not follow up the employment destination of their graduates. Thus, valuable feedback from past trainees on the quality of the training they have received and the opportunity for their experience-based inputs to be incorporated in the review of curricula and training packages are lost (AU, 2007). This kind of problem can be attributed to the existence of inadequate Monitoring and Evaluation system that can hamper the implementation of TVET strategies and programs. The case can be true as in the Ethiopian context since the current TVET Monitoring and Evaluation system is in its infant stage (MoE, 2010).

In line with this, studies discovered that the mechanisms for monitoring the quality of workplace training were found to be few and weak. Even if they exist, they did not let trainees to prepare a report on their practical training signed by the receiving firm, and sometimes the college may not be in contact with the firm. However, the criteria for monitoring firm-based training were weak in general. Even the legal framework regulating workplace training was weak as there was no contract signed between the receiving firm and the trainee setting out the conditions of training (Kis, Hoeckel&Santiago, 2009).

E/ Poor public perception of the TVET program

It is true that the general public in some countries of Africa has no positive attitude toward TVET (Simiyu, 2009). The situation is not different in the Ethiopian context. Lack of awareness of the society on TVET benefits was felt as a critical challenge (MoE, 2010). There were different causes that may give rise to it. As one expression of this, we see the public considering the vocational training as fit for only the academically less gifted people. Consequently, trainees entering the vocational education stream find it difficult to proceed further in joining higher institutions. Thus, there is a need to make TVET more attractive, as an academic education, by all trainees (AU, 2007).

In fact, measures have been taken by governments to improve the negative attitude of the public toward the system. In European countries, for instance, improving the attractiveness and image of TVET is on the agenda of the education systems. As a result, policies were designed as remedial measures to change the attitude of the public. Accordingly, the following policy measures were taken by some governments of Europe (Cedefop, 2009b): modernizing TVET programs and curricula through modularization, establishing national qualifications systems or frameworks, establishing competence-based programs, increasing access to higher education, improving the quality of TVET, diversifying TVET programs and pathways, integrating vocational subjects into general programs and vice versa, and strengthening information, advice and guidance activities.

Other measures can also be taken to change the attitude of the society. These measures, by and large, focus on the provision of clear, reliable and timely information to all, including the public, by appropriate means. The information can be obtained from different sources (Cedefop, 2011). The information dissemination technique may include establishing special department, generating publications, holding discussions, using the mass media and testing different communication methods.

In a similar research conducted in Ghana (COTVET, 2011), it was discovered that TVET was poorly perceived by Ghanaian. As a result, it was considered as an option for those unable to score better grades to enter into higher institutions. It has thus identified its negative consequence on the career opportunities available to Ghanaian youth. The research further suggested some measures that should be taken to change the negative attitude of the public. However, the situation may not be different in most of the African nations.

Thus, the following practical actions were recommended (COTVET, 2011): the need to conduct a promotional campaign to improve perceptions of TVET, the necessity of establishing career advice and guidance system in the TVET colleges, the need to expand policy

and legislative platforms for TVET, the need to improve the links between industry and training and the need to conduct capacity training for master crafts persons. It may seem unrealistic to expect immediate results regarding some of the above measures as they have a link with attitude.

In another research conducted in Kenya, measures were taken to change the negative attitude of the public toward TVET (Simiyu, 2009). Institutions offered a variety of programs that attracted prospective trainees from across the country, programs were widely advertised to the appropriate target groups using various media, training institution carried out an opinion survey before introducing new courses, courses were taught by qualified and committed instructors to ensure an above-average performance on the part of the trainees, supporting services were efficiently provided by appropriate staff, Board of Governors played an important role in 'humanizing' the institution by putting in place various activities relevant to its proper functioning, machines and equipment were serviceable and materials were readily available for the conduct of effective training, and discipline was implemented in the institutions through mechanisms put in place by a team of professionals under the guidance of the dean of trainees.

The measures of the institutions mentioned above were recorded and believed to bring a remarkable promoting trend in its enrolment and achievements for some time. However, all were case studies and their findings may not be applied in similar situations.

F/ Lack of facilities in the enterprises

Not all enterprises can offer training for the apprentice as in the case of Norway since there were obligations imposed on them. The apprenticeship system in countries like Norway was highly organized, systematic and resembles the formal training setting. Thus, the enterprise or public institution, in general, must be approved by the country's authorities as a training organization before it conducts any kind of training.

In relation to this, enterprises may be obliged to fulfill the following conditions (Cedefop, 1999): enterprise must be in a position to meet the training requirements of the curriculum for the recognized occupation concerned, qualified training manager must be appointed by the enterprise with the responsibility of instruction, it should allow the training process to be supervised by the employees' representatives and the training manager in order to check that training facilities, it should ensure the curriculum requirements and training process, it should facilitate loans and grants for the apprentices from the state educational loan fund system, it should be committed to train in one or more recognized occupations by covering the whole curriculum designed for it, its supervisors should give feedback to trainees and it

should cooperate through a training office or a training circle where it is supposed to link.

These training offices and training circles are, in fact, established on the initiative of the employers' associations within the recognized occupations, but sometimes the initiative is taken by the county's vocational training committees.

On the other hand, in countries where the modern sector is underdeveloped and the size of enterprises are small, there may be insufficient enterprises to provide the capacity for structured on-job training particularly the apprenticeship training to meet the needs of the economy. It seems unrealistic to talk about the provision of quality training with such facility of the enterprises (UNESCO, 1992).

G/ Poor professional capacities of supervisors

Supervisors need to acquire theoretical and practical knowledge relevant to their profession. This is due to the fact that they are expected to familiarize apprentices with the social norms and codes of the workplace and manage the apprentices while they are at the company. Besides, it prevents drop-out rates of apprentices. In companies where there were unqualified supervisors, it was observed that the rate of drop-out was high (Kis, Hoeckel & Santiago, 2009). Owing to this, there is an obligation on the part of supervisors to have both technical and professional skills. For instance, in Switzerland, supervisors are required to take courses of 100 learning hours covering pedagogy, law, the education system, problems with drugs and alcohol, etc. These are, in fact, courses that are thought to enrich the professional capacities of supervisors. Besides, they may not be required to look after more than two apprentices and should have a certain level of education, either certificate or diploma. All these have implications on the quality of the apprenticeship training in the enterprises (Field et al, 2008).

Along with their regular jobs in the enterprises, there is a need to provide training for supervisors. Research confirms that training of supervisors improves their capacity to supervise and train. In a research conducted in UK, it was reported that occasional supervisors who lack the relevant training tend to train on specific occupational skills rather than key social competencies such as communication and teamwork. In a similar research conducted in Australia, apprentices have emphasized the need to have high social and personal skills within their supervisors such as the capacity to deal with conflict in addition to their knowledge of their trade (Field et al, 2008).

In Germany, formal training for supervisors seems to be mandatory. Until 2003, employees who wanted to work with apprentices had to pass a national

examination, preceded by optional training offered by chambers of commerce (Kis, Hoeckel & Santiago, 2009).

Low quality of workplace training may have various causes. Inadequate preparation of supervisors is likely to be one of them. Thus, it is recommended that workplace training supervisors should receive pedagogical training in order to provide high quality training to VET trainees (Kis, Hoeckel & Santiago, 2009).

Moreover, supervisors are advised to follow flexible training based on the learning preference of apprentices and delivery system to enhance apprentices' skill. However, due consideration should be placed to strategies that can be developed according to apprentices, supervisors and enterprise needs (Robertson & Wakefield, 2001; Smith, 2000).

In a research conducted in European Union countries, it was reported that supervisors were perceived as 'guardians of quality training in enterprises'. In parallel with this, professional standards and competence frameworks for in-company supervisors are established in some European countries to enhance their capacity. However, there are instance that show the provision of insufficient opportunities and incentives for their professional development. This is due to the fact that they may not have financial incentives, career prospects and higher professional status (Cedefop, 2011b).

Supervisors also play the role of mentors. A mentor, in a workplace situation, is model technical person who is expected to guide the trainee or apprentice to acquire the skills of a job. In line with this, there are two kinds of mentoring programs: Formal and Informal. As opposed to the informal mentoring program, the formal mentoring program establishes mentoring procedures and officially recognizes mentors as professional leaders in the workplaces. In general, mentoring as a system provides instruction, lessons to mentees during their apprenticeship training program. It also initiates positive work ethics and attitudes, and provides mentees with role models. For the successful implementation of the program; both mentor and mentee are also expected to establish formal relation in the workplace. However; this kind of relation and procedure are not supposed to be followed in the informal program (Hipes & Marinoni, 2005).

In the formal mentoring program, the mentor is assumed to have rich and transferable skill. Trainees or apprentices, on the other hand, have skill gaps to be filled by these mentors. When sent in the workplaces, apprentices are assigned to the mentors. Consequently, they start to imitate mentors. The mentors, on their part, help them how to do the work effectively by showing them the skills. This is not a one shot activity. Instead, it continues until the apprentice masters the job. An effective workplace mentor reinforces behavioral characteristics that can contribute to apprentices successful work experiences (Luecking, 2009; Hipes & Marinoni, 2005).

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