

Evaluation of fellowships awarded to developing countries – What do the studies tell?

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Abstract. Despite the expansion in the developing countries of institutions of higher education the award of fellowships to nationals from these countries for study abroad, in particular in developed countries, is still important. In order to learn about the effectiveness of various elements of the fellowship programmes – for example, the selection process, the relevance and use of the training, and the brain drain – many donor agencies as well as a few recipient countries have evaluated the activity. However, as most of these studies are never published, there is very little readily available information about the outcome of the fellowship training. Against this background, the present article analyses and discusses the findings of a number of evaluations undertaken. The analysis points out the more important problem areas in the activity. It also draws attention to some methodological issues which, if not considered, may invalidate the findings of studies.

Introduction

The award of fellowships to nationals from developing countries for study abroad is an important component of technical cooperation. Every year thousands of fellows from developing countries receive advanced professional or vocational training in foreign countries, in particular in the developed ones. The general objective of the fellowship programmes is to assist the recipient countries in increasing their pool of qualified personnel, especially in categories that are essential for national economic and social development. The length of the training may vary from a few months to several years.

The importance of the activity is well illustrated by some figures. In the two-year period 1982–83, WHO (World Health Organization) awarded close to 6000 fellowships at a cost of US\$ 55 million.¹ The British Government each year sponsors some 4000 fellows from developing countries for study in the United Kingdom.² In the fiscal year 1980–81, the Australian Government awarded some 3300 fellowships at a cost of A\$ 18 million to nationals from developing countries for study in Australia (ADAB, 1982, p. 8). The Dutch Government annually sponsors about 1700 students from developing nations for studies in the Netherlands (NUFFIC, 1982, p. 5).

Considering the high cost of the fellowship programmes, it is important to know how well the activity functions – whether the training provided corre-

sponds to the recipient countries' manpower needs; whether fellows are properly selected, adequately prepared and placed in suitable institutions; whether the training, including methods and technologies taught, is relevant to the conditions in the fellows' home countries; and whether fellows return home and are effectively employed.

Many donor agencies as well as some recipient countries have also evaluated the activity. This article presents and discusses the more important findings of a number of such evaluations. The material reviewed was mainly collected through personal visits (7) and written requests (36) to international organizations, national governments and other agencies and institutions awarding fellowships. An effort was also made to identify evaluations through a library search request. However, very few studies dealing with fellowships offered to developing countries were traced. Yet, many studies have been carried out, indicating that most of these studies are never published.

With the exception of six agencies and governments, the 43 bodies approached responded to the request for information although only a third of them had any material to distribute. Some awarded very few fellowships, others had not evaluated the awards or were in the process of doing so, while others again could not disclose any reports as they were for internal use only. This article is therefore based on material received from a dozen agencies and governments and on some publications otherwise identified.

Although it is difficult to generalize from evaluation findings that refer to specific situations, the information is valuable because it allows us to draw certain conclusions about the fellowship activity and to identify areas that need particular attention.

Pre-fellowship period and fellowship period

Selection of Fellows. To maximize training opportunities it is important to select bright and highly motivated fellows. The selection of fellows may be judged in terms of how successful they are in their studies. However, none of the evaluations provide reliable information in this regard. Some studies have attempted to see how well the selection procedures are carried out. One evaluation has examined the announcement of awards. Fellows from four Latin American countries were asked how they came to know about the fellowship; 51.6% (66) of the respondents mentioned the supervisor and 27.7% 'WHO people', while only 2.4% reported publications (0.8%) or public notices (1.6%) (WHO/AMRO, 1970, Annex 1, p. 1). The insignificant proportion of fellows who had learnt about the award through official avenues suggests that many fellowships are not officially advertised but merely brought to the personal attention of senior staff in government departments and

training institutions. Although this procedure may be justified in certain cases, it would tend to encourage favouritism and limit the possibility of attracting a large number of competent applicants.

It is often difficult for the donor agencies to evaluate the selection of fellows because the selection procedures recommended are not always followed by the recipient governments, and the donors are not necessarily informed about the procedures applied. In some countries the process appears to be quite politicized: there is a lack of information about available awards; selection committees are abolished without evident reasons; the selection of fellows is the responsibility of one person; fellowships are not awarded to the most suitable or qualified candidates (Goldschmidt, 1981, p. 57). Some governments seem to award fellowships in order of seniority or rotation rather than by merit (British Council, 1981, p. 5; ODA, 1979, p. 2). At times, fellowships also seem to be used as a reward system or as a tool to move unwanted people out of office (Goldschmidt, 1981, p. 56).

In many countries an ideal selection of fellows is not possible as the most suitable candidates do not always have the formal educational background or language proficiency required for entrance to institutions of higher education (WHO/EMRO, 1980, pp. 6–7). The language problem may also introduce biases in the selection. In Thailand, for example, the “English Language requirements created both a Bangkok and an age bias in the selection procedure” (ADAB, 1980, p. 49B). Some countries cannot even use part of their fellowship entitlements because of the language barrier (Goldschmidt, 1981, p. 59).

Another selection issue is the distribution of awards by sex. In many countries there is a strong under-representation of women. In India, only 3% of the fellowships awarded by UNESCO between 1964–69 went to women; in Congo, 7% of those awarded between 1962–74 benefitted women, while the corresponding figure for Upper Volta (Burkina Faso) in the period 1969–76 was 13% (UNESCO, 1978, p. 25). In Malaysia, only 12.6% of the UNESCO fellowships awarded between 1970–78 were distributed to women (UNESCO, 1979, p. 2). A study of overseas students from Kenya, Somalia, Swaziland, Tanzania and Zambia, reported that “women are offered far fewer post-secondary opportunities than are men” (Maliyamkono *et al.*, 1982, p. 283). Whether there is an unjustified bias toward men in the distribution of awards is difficult to say. The situation may reflect an under-representation of women in the secondary school system. No study has compared, at the country level, the proportion of women who received fellowships with the proportion of women who completed secondary education.

Placement of Fellows. Although most responding fellows seemed to be satisfied with the training arranged, the experience of several agencies suggests,

however, that many placements are not ideal, if we are to judge from their preparation (JIU, 1976, pp. 20–22). According to a WHO study, only about one third of the fellowship applications are received before the deadline (WHO, 1984, p. 38). As a result of their late arrival, but often also because the information about the training requested is incomplete, many applications cannot be handled with the care required to ensure a suitable training experience (WHO, 1984, p. 38; JIU, 1976, p. 21). The late arrival of applications may be due to a late announcement of the award by the donor agency (JIU, 1976, p. 20; Carstairs *et al.*, 1981b, p. 7), a shortage of qualified personnel in the recipient country (JIU, 1976, p. 18), or the administrative process in the recipient country (JIU, 1976, p. 20). Whichever the reason, considerably more attention will have to be paid to the placement of fellows, which by many evaluators merely seem to be considered as an administrative matter. However, this aspect of the awards is closely related to the issue of relevance of training programmes and as such constitutes a key issue of the fellowship activity.

A consequence of the late arrival of the applications is the short time left between the issuance of the letter of award and the start of the fellowship. Of 73 fellows included in a WHO study, 49.3% had to leave with less than one month's notice (Orszyszyna, 1979, p. 29). Studies from Nepal and Pakistan reported that occasionally the notice was shorter than one week (Carstairs *et al.*, 1981a, § 4.27; Carstairs *et al.*, 1981b, p. 9). This problem may be one of the reasons why the pre-departure briefing is frequently so poor. In many evaluations half or more of the fellows complained about lack of information on the training programme; either it was insufficient or arrived too late, or the fellows did not receive any information at all (ADAB, 1980, p. 11; Simons, 1979, p. 11; British Council, 1981, pp. 7–8; Churchill, 1982, p. 4). However, it is important that fellows are properly briefed in this regard. Unless they have sufficient information on the training programme they can neither determine whether it corresponds to the training requested nor prepare themselves adequately for the studies. Many fellows were also unhappy with briefing on living conditions in the host country (ADAB, 1980, p. 11; WHO/AMRO, 1970, Annex 1, p. 2; Rose, 1976; Brady, 1976).

Language Problems. A factor that influences the outcome of the training is the fellow's language proficiency. There seems to be a significant correlation between general satisfaction with training and proficiency in the language of instruction (Coleman, 1983, p. vii). However, some 15%–25% of the fellows, according to field of study, had language difficulties (British Council, 1981, p. 10; Simons, 1979, p. 11; WHO/AMRO, Annex 1, p. 5; Bobritschew, 1975, p. 133; WHO/EURO, 1973, p. 4). The extent of the problem seems to be related to the country of origin of the fellow, the language of instruction and the nature and level of the training. A study of Thai fellows indicated that those

studying for a degree and those receiving training in the fields of science and technology had language problems more often than other fellows (UNESCO, 1974, p. 10). The most common problems are difficulties with class discussions and participation; many students also have problems with writing exams and seminar papers and understanding lectures (Coleman, 1983, p. 9; Bruce-Chwatt, 1975, p. 14; Simons, 1979, p. 11). Among 76 fellows with language problems who studied in the United States, the problem had disappeared for 42% of them after one academic term and for 33% after six months (Coleman, 1983, p. 9).

Many fellows receive language tuition at home and/or in the host country before starting the fellowship. However, this tuition was often criticized; the courses were considered to be too short and/or not specialized enough for the purpose of the fellowship training (Simons, 1979, p. 11; British Council, 1981, p. 10; ADAB, 1980, p. 33). There was also dissatisfaction with the initial language test among some fellows; they felt that the test did not reflect their proficiency in relation to the type of training they were to undertake (Simons, 1979, p. 11; Goldschmidt, 1981, p. 59; ADAB, 1980, p. 50). The above findings suggest that it may be useful to include in certain long-term awards a few months of well planned intensive language training in the host country before the start of the actual fellowship training.

Fellows' Satisfaction with Training Programmes. Most of the responding fellows (80%–95%) were satisfied with the training programme as a whole (Bobritschew, 1975, p. 133; Simons, 1979, p. 10; Bruce-Chwatt, 1975, p. 13), although the satisfaction tended to vary according to field of study. Among fellows who studied in the United States, social scientists seemed to be the group least satisfied with their courses, while agricultural and, in particular, health scientists were those most satisfied (Coleman, 1983, p. vii). Similar findings were reported in an evaluation of fellows who studied in Britain (Simons, 1979, p. 10).

However, many fellows were not satisfied with certain aspects of the training. A major complaint (in some studies 30%–60% of the respondents) was the length of the training period, which was considered to be too short (Bruce-Chwatt, 1975, p. 14; ADAB, 1980, p. 3; Bobritschew, 1975, p. 133; UNESCO, 1979, p. 8; UNESCO, 1978, pp. 11, 28, 36; UNESCO, 1977, p. 6; UNESCO, 1974, p. 10; UNESCO, 1971, p. 3; Cameroon, 1973, p. 28; WHO/SEARO, 1977). The main criticism was that it was not long enough for obtaining a degree or a diploma (UNESCO, 1978, pp. 11, 28; Bobritschew, 1975, p. 133). This criticism can nevertheless not be taken as an indication that there is, generally, a need to offer longer awards. It is rather a question of finding out under which circumstances more long-term fellowships would be beneficial for the recipient countries. In many cases, the issue of diplomas

seemed to reflect a personal concern of the fellows more than a real need of their countries. In one country study, government officials expressed the view that post-graduate awards made available to departments other than universities were not very effective and that “more and shorter training courses for larger numbers were needed urgently and would have greater impact” (ADAB, 1980, p. 52). Countries with a shortage of qualified personnel also have problems with releasing people for longer periods (JIU, 1976, p. 18) especially for doctoral studies (ADAB, 1980, p. 53).

As to the training programme itself, many fellows would have valued more practical exercises, field work or practical experience in the form of an attachment to a firm or other place of work (UNESCO, 1978, p. 11; Churchill, 1982, p. 5; Bobritschew, 1975, p. 133; Bruce-Chwatt, 1975, p. 13, Simons, 1979, p. 10; UNESCO, 1971, p. 5; Carstairs *et al.*, 1981a; Carstairs *et al.*, 1981b, p. 10; British Council, 1981, p. 16).

Post-fellowship period

Most fellows and recipient governments were very positive about the overall outcome of the training experience. Satisfaction was expressed not only with the knowledge and the professional experience gained but also with the more personal development of the fellows and the value of the programmes for a better understanding between countries and peoples (Coleman, 1983, p. xi; Uhlig *et al.*, 1978, p. 50; Kalejaiye, 1971, p. 5; DANIDA, 1981; Clark *et al.*, 1979, p. 5; UNESCO, 1978, p. 38). However, a more rigorous analysis of the evaluation findings suggests that this very positive view has to be regarded with some reservation. For various reasons, in particular the low response rate in many studies, the findings do not fully support this optimistic general impression.

Employment and Relevance of Training to Manpower Needs. Although it is important that the fields of training correspond to the recipient countries' priority manpower needs, the issue has not received much attention in the evaluations. It may be possible to get a rough idea about the relevance in this regard by looking at the number of fellows who found work in their field of study. A review of some fifteen evaluations undertaken by UNESCO and WHO indicated that between 75%–90% of the responding former fellows worked in their field of study (UNESCO, 1979, p. 11; UNESCO, 1978, pp. 15, 29; WHO, 1970, pp. 12–22; WHO/SEARO, 1977; Bruce-Chwatt, 1975, p. 11). Agencies outside the United Nations system reported similar findings (British Council, 1981, pp. 14–15; Clark *et al.*, 1979, p. 4; ADAB, 1980, p. 35). However, owing to the low response rate in many of the studies – in

general, between 30%–60% – the above information cannot be considered as representative of the fellow population under study and is therefore not reliable. If fellows who are unemployed or not employed in line with their studies are more reluctant to answer than other fellows, the actual percentage of fellows employed in their field would be lower than the above figures. Moreover, one cannot assume that all those employed in their field belong to manpower categories that are a priority for national development.

An African author is in fact concerned about some donors' ambition to determine – often without even consulting the recipient governments – the fields of priority for fellowship training. In Lesotho, for example, one donor agency decided to give awards for studies likely to contribute to rural development. However, as the Government had already put considerable effort into this area, the result was that too much emphasis was put on rural development at the expense of other training requirements. Another agency merely informed the University of Lesotho that fellowships would be awarded to prospective lecturers in science, agriculture, accounting and business administration. Although these fields were important, the university felt that part of the fellowships would have been more useful if awarded for cultural studies (Mohapeloa, 1979, pp. 98–99). There were also complaints among African officials that donor countries may simply disregard the Africans' own evaluation of their development needs (Cotter, 1979, p. 117).

Promotion. A large proportion of the fellows – 40%–60% of the respondents according to field of study – were promoted to higher positions after their return home. Promotion, in particular to senior positions in which the fellows have the possibility to influence others and disseminate their learning, is generally considered to result in greater use or effectiveness of the training. It is also commonly thought that promotion is an indication of a high level of performance. Although there is some truth in these assumptions, it appears that promotion is not a very reliable measure neither of use of fellowship training nor of former fellows' performance. In fact, many fellows who had not been promoted in the true sense of the word nonetheless assumed greater responsibility and also seemed to be undertaking as many new tasks as fellows who had received a promotion. In a study of 54 Asian post-graduate fellows where 41% (22) had been promoted, it was observed that

... the relatively large proportion of WHO fellows who within an average of 5.2 years, have not received any promotion should not be misinterpreted. The fact is that some 32 (60%) among the total number now have greater responsibilities than before but could not be upgraded with a correspondingly higher salary simply because there was no appropriate vacancy in the government service or in the academic institution concerned (Bruce-Chwatt, 1975, p. 12).

A similar situation was reported from a Hungarian study (UNESCO, 1978,

p. 32). Furthermore, many fellows had not been promoted because of administrative regulations. This was the case in Nepal, where the grading structure of the civil service (four grades for professionals) makes promotion very slow. Competent civil servants may spend up to 15 years in the lowest grade before being promoted, and lack of promotion is by no means a sign of poor performance (Carstairs *et al.*, 1981a, §§ 3.4–3.12). An evaluation of former women fellows from different countries also hints at differences by sex; in no other study presenting data on promotion was the rate of promotion – 25% (45) of the respondents (UNESCO, 1978, p. 17) – as low as in this study which dealt with women only.

Moreover, a number of fellows from different countries ‘due for promotion’ or who thanks to the fellowship had become eligible for promotion were actually promoted out of the job or the specialty for which the training was intended (Carstairs *et al.*, 1981a, §§ 3.4–3.12; Carstairs *et al.*, 1981b, p. 11; UNESCO, 1978, P. 17; ADAB, 1980, p. 57). In a study in Cameroon, as many as 20% of the fellows were promoted to jobs irrelevant to their training (British Council, 1981, p. 15). In Ghana one fellow “felt that his promotion prospects had suffered from his training since his turn for promotion had come while he was away and he had missed it” (Churchill, 1982, p. 7).

An interesting comment about promotional perspectives was made by an Asian fellow. “The people chosen for promotion are often those who have been to the same country as the boss” (ADAB, 1980, p. 39). There might well be some truth in this observation. A study of African students indicated a tendency for overseas trained employers to favour overseas trained staff on applying knowledge and skills, job performance skills, creativity and initiative, while locally trained employers tended to prefer locally trained staff for all these traits (Maliyamkono *et al.*, 1982, p. 241).

Use of Training. The former fellows are using their training in different ways. It appears that much of their knowledge is disseminated to others. Many of them had since their return made contributions to or been involved in one or more of a number of activities such as formal teaching or instruction of others at work; information of others through conferences or articles; organization of or participation in workshops, seminars or other meetings; research; and introduction of new services, activities or methods. However, it is not clear to what extent these activities reflect the objectives of the awards or what the fellows were particularly supposed to learn during the fellowship period.

Although the majority of the fellows reported that the training was very useful or relevant to their work, contradictions, nonetheless, cast a shadow over some findings. In an evaluation of Latin American fellows, 90% (115) of the respondents said that the training had been of great practical use, while 10% found it to be of little practical use. However, these statements do not

correspond well with a few replies given by the same fellows further on in the interview. In fact, only 28% (35) said that the use of their 'training and experience' by their employing institution was excellent; 52% considered it as average, while almost 20% classified it as deficient and 0.7% as none. From the report one also learns that, for various reasons, "the majority of them could not utilize what they had learned..." (WHO/AMRO, 1970, Annex 1, pp. 3-4). Despite the very positive initial statement – which could be due to a limitation of the answer categories in the multiple choice question – there were evidently some problems with the use of the training among an important proportion of the fellows.

Factors Limiting the Use of Training. A number of fellows could not use their training. Some of them could not use it because it did not correspond to the training requested, or it was inappropriate to the work it was meant to prepare them for. The latter problem was at times due to imprecise or misleading information in the application form (Carstairs *et al.*, 1981a, § 4.34; Carstairs *et al.*, 1981b, pp. 7-9, 11). Countries had also accepted offers of unsuitable training rather than losing the opportunity of the fellowship (Carstairs *et al.*, 1981b, p. 9).

Sometimes when the training corresponded to the training requested, fellows could not use it because they had not been employed in the post for which it was intended or in another job in the field or speciality of study. Generally, the reasons for this are not well explained, but it seems like factors such as the following may be responsible: discrepancies between fellowships awarded and the recipient country's manpower needs; deficient manpower planning; changes in development plans due to political and economic factors; problems in the management of returned fellows' training; fellows promoted to or offered more interesting job outside their area of training.

However, also when fellows had received the training requested and upon return were employed in the 'right' jobs or in line with their studies, there were various factors that limited the use of the training. According to a study of Latin American fellows, many of the 128 respondents could not use it for the following reasons:

– lack of financial resources	32.0%
– lack of human resources	15.6%
– lack of authority	9.4%
– lack of material resources	7.0%
– lack of power of decision	7.0%
– other reasons	34.0%

Many of them also said that they had met opposition to change or a lack of interest, in particular on the part of their supervisors (24.2%); there was also

resistance among colleagues (9.4%) and administrative and technical subordinates (7.8%) (WHO/AMRO, 1970, Annex 1, p. 4). In a study of 140 Asian fellows, 11% of the immediate supervisors had shown no interest in the training, and in two further cases (3%) they had discouraged its use; 70% of the respondents also reported a lack of support staff and 54% a lack of technical equipment; 33% referred to other constraints such as poor libraries and no supervision (ADAB, 1980, p. 41). Among fellows from Ghana, 28% (10) could not apply their new skills because there was no money to buy the material and equipment required to carry out the work (Churchill, 1982, p. 7). In a study of post-graduate fellows from different countries, many reported a lack of funds in the home institutions for both applied (40%) and basic research (54%); moreover 34% of the fellows seldom or never had use of laboratory equipment; and a quarter of them rarely or never had access to foreign journals and books (Coleman, 1983, p. 21). Although not expressed in quantitative terms, similar problems were voiced also in other studies (UNESCO, 1978, pp. 18, 32–33; Goldschmidt, 1981, p. 59; Lockett & Truman, 1984, p. 285; British Council, 1981, p. 15; UNESCO, 1977, p. 8).

The extent to which opposition among supervisors was justified has not been examined, but some of them may have found the new methods or equipment suggested too expensive or inappropriate for the particular situation. In one recipient country, government officials “hinted that it was a little irresponsible to raise expectations by providing training which could not be fully utilized because of lack of equipment” (ADAB, 1980, p. 60). However, it cannot be excluded that some supervisors reject new ideas or methods because of conservatism, lack of understanding of the new methods, or because they feel threatened by dynamic and competent subordinates.

Some of the constraints reported may have their origin in the training programme. In a FAO (Food and Agriculture Organization) study, “Almost half of the respondents from developing countries stated that they encountered problems upon their return because of deficiencies in their study programme”; among fellows from Latin America, as many as 75% were affected. Fellows studying in developing countries had considerably less problems than those studying in developed countries (JIU, 1976, p. 37). Qualitative remarks about unsuitability of training were also made in several other studies (Clark *et al.*, 1979, p. 4; Bruce-Chwatt, 1975, p. 17; British Council, 1981, pp. 15, 17; ADAB, 1980, p. 72). A crucial problem was that specific areas or course elements being studied referred to situations and concerns of developed countries, and that therefore many methodological approaches, techniques and equipment suggested or used were not suitable to the conditions in the developing countries.

... there seemed to be a gap between the expectations of Course Directors and study fellows.

Equipment used for training purposes was often beyond the resources of Zambia (Clark *et al.*, 1979, p. 4).

Fellows who had participated in a course at the WHO immunology and training centre in Switzerland felt that too much emphasis was put on highly sophisticated laboratory techniques which were not immediately applicable to their work situation at home (Gyr, 1977, p. 8). However, there is no clear dividing line between developed and developing countries with regard to suitability of methods and equipment. What is suitable for a country depends on its political and economic system, level of socio-economic development, financial capacity as well as on social and cultural factors. Some developing countries can afford more sophisticated equipment than others. What is essential is that fellows receive training that corresponds to the specific needs of and conditions in their countries.

The ideal is not, however, to focus only on technologies that are immediately applicable in the fellows' home countries. For many recipient governments overseas training, in addition to general training purposes, is a way of "maintaining access to the technologies of the industrialized countries and attempting to prevent the technological lags from widening" (Oxenham, 1981, p. 152). This means that exposure of fellows with thorough work experience to sophisticated technologies which are not directly applicable in their countries is valuable, because such an exposure may contribute to a widening of the fellows' horizons. Experienced fellows with a creative mind may be able to develop, on the basis of the advanced technologies, other technologies that are suitable to the socio-economic and cultural situation in their home countries. Such a process will allow progress with national autonomy, while the mere concentration on less sophisticated methods that are immediately applicable in the developing countries is likely to maintain these countries in a situation of dependence *vis-à-vis* the industrialized ones. The question for recipient governments would rather be one of identifying, in addition to ordinary training needs, particular areas where technological innovations are urgently needed and then to select carefully fellows who because of their previous experience and demonstrated creativity are likely to be able to see how very advanced foreign technologies or elements thereof can be adapted to their home countries.

In conclusion, it appears that both donor agencies and recipient countries would have to be much more aware of the issue of appropriate technology and its implications for the training. In certain cases when the appropriateness is merely a matter of finance and the missing equipment is not excessively expensive, the recipient government may try to negotiate with the donor agency to obtain financial support for purchase of the equipment. Perhaps a minor part of the funds allocated to fellowships could, at the request of the recipient government, be used for this purpose.

A few factors enhancing the use of the training were also identified. A study from Lebanon suggested that the procedure for selection of fellows has a bearing on the use.

Of fellows recommended by their immediate superiors or by chiefs of development projects, 88% were assigned on their return home to a post related to the training received, and of fellows selected on the basis of a competitive examination or by general application, 40% were assigned to posts related to training, ... (UNESCO, 1978, p. 30).

A study of fellows from different countries found that the use of the training was greater when the supervisor had played an important role in the selection of the candidate and the planning of the training programme. The use was also enhanced when the fellow had been actively involved in the planning of the training (Sperling, 1973, p. 12).

Other factors that seem to affect positively the use of training are the attachment of fellowships to development projects (Carstairs *et al.*, 1981a, §§ 4.6–4.7; UNESCO, 1971, p. 5; Hvoslef, 1972, pp. 1–2) and the provision of training to more than one person from the same institution or department (ADAB, 1980, p. 80). “While one individual cannot hope substantially to alter and develop the traditional accepted approach of his department, a group of trained staff can” (Carstairs *et al.*, 1981a, § 4.7).

Readaptation of Fellows Upon Return. Very little information is available on the readaptation of fellows after their return home. According to one study including 45 supervisors of returned Latin American fellows, 81.4% said that the fellows readapted adequately to life in their home countries; 17% regarded the readaptation as limited, and 1.6% as poor. As to the fellows’ adaptation to the reality in their work, 78.3% of the supervisors felt that it was adequate, 20% that it was limited, and 1.7% that it was poor (WHO/AMRO, 1970, Annex 2).³

An evaluation of Asian fellows who studied in Australia reported that the settling down period for university staff varied depending on the length of absence, level of study and previous work experience. Some fellows who had studied overseas at under-graduate level while they were very young needed up to two years to adjust. Returned fellows who had been away for up to six years without previous work experience tended to be those least willing to adapt the learning to the situation in the home country. Major grievances were the inflexibility of the system, poor equipment and working conditions, and reduction in income compared to during the fellowship period when a student allowance was added to the basic salary (ADAB, 1980, pp. 65, 96). The above findings suggest that claims made by former fellows about lack of facilities and other resources could partly be a problem of adaptation.

Return Rate of Fellows – The ‘Brain Drain’. A successful fellowship implies

that the fellow returns to his country. According to some studies within the United Nations system, the problem of the brain drain only affects some 4% of the fellows (JIU, 1976, p. 35; Orseszyna, 1979, p. 24; WHO/EMRO, 1975, p. 3). However, other data generated within the UN agencies suggest that the brain drain is higher. Among 60 developing countries replying to a UNESCO questionnaire on the brain drain, 47 reported that they were affected by the problem; in 28 countries it was serious, particularly in certain fields, for example in medicine (JIU, 1976, p. 35). Concern about the problem was also expressed by six countries included in a WHO manpower study (Goldschmidt, 1981, p. 59). The non-return of fellows was also a great problem in Nepal, particularly among graduates in medicine and engineering (Carstairs, 1981a, § 3.26). Another Asian country has adopted the policy of sending medical students to countries in the region as several doctors sent for training in Western countries never returned (WHO/SEARO, 1979, p. 3). A third of the respondents in a FAO study said that they considered settling abroad permanently if the opportunity arose (JIU, 1976, p. 37).

In addition, figures presented on return rates are sometimes deceptive. An example is a study undertaken in South East Asia, in which the response rate to the 1515 mailed questionnaires was 27.5% (417). At a time when the evaluators assumed that no more questionnaires would be returned, they concluded that "an analysis of the 417 questionnaires so far received could be taken as representative of the whole" (WHO/SEARO, 1977, p. 1). The "Highlights of the Evaluation" then report that "76% Returned to their country after completing fellowship" (WHO-SEARO, 1977, p. 2). However, a more detailed analysis of the return rate of the fellows could look as follows:

Fellow returned home (76% of 417)	317	20.9%
No response received	1098	72.5%
Fellow not returned	100	6.6%
	<hr/>	
	1515	100.0%

In this study – despite a reported return rate of 76% – one only knows with certainty that 21% of the fellows had returned home. Responding fellows only can never be 'representative of the whole'. Although it is most unlikely that all former fellows who do not respond to an evaluation are abroad, and that all those still studying abroad will not return home, one cannot merely neglect their existence if one is looking for a picture of the brain drain. Former fellows who live abroad are probably more difficult to trace, and if traced may be less prone to respond to follow-up questionnaires. One may therefore assume that the group of non-respondents includes a larger proportion of non-returnees than the group of respondents and that, as a consequence, the brain drain is higher than usually reported in evaluations.

A few studies undertaken outside the UN system sustain this assumption. A study of fellows from Liberia indicated that the vast majority of those on

project related awards had returned home. However, 60% of the fellows on untied long-term awards that had expired were still abroad; most of them studied in the United States, where they had remained (Hvoslef, 1972, pp. 1–2). In a study of fellows from different countries who received training in Britain, about 89% were believed to have returned home. However, it became evident that some fellows, in particular in the medical field, had paid jobs in the host country; of the 43 fellows in this field 8 (18.6%) had not returned (Simons, 1979, p. 6). In an evaluation including a sample of 40 fellows from Ghana who had studied in Britain, it was impossible to locate four of the fellows, but they were all thought to be working abroad (Churchill, 1982, p. 2). One study attempted to find out why 18 (17%) of 105 fellows from Bangladesh and 27 (19%) of 144 fellows from Sri Lanka studying in Britain but due to return home in 1974–75 had failed to do so. The evaluators concluded that 8 fellows from Bangladesh and 17 fellows from Sri Lanka were unlikely to return permanently (Rattee, 1976, pp. 1, 3–5, 8–10); this would give approximate non-return rates of 7.6% and 11.8% respectively. Non return was partly explained by political factors (civil war), but it was mainly considered to reflect the desire of some fellows to acquire PhDs and live in Britain (Rattee, 1976, p. 1).

It is not easy to establish precise figures on the brain drain as many fellows who are due to return obtain an extension of the award or receive another fellowship. It is also difficult to know whether fellows who stay on in the host country do this to gain practical experience before returning home or whether they intend to settle abroad; and the first situation may well lead to the second.

According to observations made in Sweden, non-returnees are recruited in particular from among the very successful students, who are sometimes offered employment by the host institutions, and from among fellows who fail their studies. The latter often find it humiliating to return home and therefore prefer to stay on and do unqualified jobs (SIDA, 1971, p. 3).

Because of the high proportion of non-respondents in most studies, it is not possible to draw any firm conclusions about the brain drain from the above material. It seems reasonable, however, to suggest that the non-return rate or loss of fellows of many fellowship programmes is between 10%–20%, while in some cases it is even higher.

Conclusions

Both the beneficiary governments and the vast majority of the responding fellows expressed great satisfaction with the overall outcome of the fellowship training. It was said to enhance not only knowledge and professional skills but also the personal development of the fellows. However, although the fellow-

ship activity is highly appreciated and has no doubt contributed positively to staff development in the recipient countries, the findings of the evaluations have to be interpreted with caution. Owing to the low rate of participation in most studies, it is difficult to draw firm conclusions about many aspects of the activity. Very few studies included more than two thirds of the fellows in the sample and when mailed questionnaires were used, the forms were usually returned only by about a third of the intended respondents. Part of the findings may therefore be biased by missing information. Despite the initial overall positive picture, a more detailed analysis of the evaluations also indicated a number of problems to which donors and recipient governments will have to pay more attention.

Although 75%–90% of the responding fellows (according to field of study) were employed in their field of study, the relevance of the field to the recipient countries' priority manpower requirements needs further consideration; apart from low response rates, employment in the field of study does not necessarily mean that the fellowships were awarded for training in priority areas. Whether fellowships are used for priority needs will have to be checked against manpower plans or real needs otherwise identified. Judgement about the outcome of the fellowship training has also been based on the promotion of fellows. However, it appears that promotion is not a very reliable criterion of success.

In many cases there were also problems with the content of the training – including methods suggested and equipment used. It seems that the fellows' training needs are not always considered in the light of the social, economic and cultural background of, and the working conditions in, their home countries. Moreover, the relevance of training programmes has not, generally, been measured against objective criteria – that is, the skills and knowledge the fellows were expected to acquire through the fellowship – but merely in terms of how satisfied they were with the training. However, personal satisfaction is a subjective criterion, which does not take into account that there is a tendency to report favourably on training experiences that involve travelling, especially abroad, and lead to professional or material benefits. There is therefore a risk that the satisfaction with the training is overstated.

Another issue of concern is the brain drain. The figures presented in the studies do not give a clear picture of the proportion of non-returning fellows and the reasons why they prefer to stay abroad. It appears that the brain drain, because of missing data, is underestimated in many studies. If more information were available on the problem and its causes, it may be possible for governments to take measures that would encourage more fellows to return home. Other areas needing particular attention are the selection and placement of fellows, the issue of language proficiency, and briefing on the training programme.

The above issues refer to problems identified in the studies examined. Other

issues of concern to governments may also be included in future evaluations; for example, a comparison between the relevance and use of training provided to fellows studying in third countries and the relevance and use of training provided to fellows studying in developed countries. This may tell whether adequate training can be obtained in other developing countries.

A further limitation of the evaluations undertaken – at least for the recipient governments – is that many donor studies include fellows from a number of countries without analysis by country. However, as most of the problems identified are country specific, recipient governments, in order to improve the fellowship activity, would need to know to what extent their country and fellows are affected. One way for the recipient governments to overcome this problem would be to evaluate themselves the fellowships offered to their nationals. A further advantage of such studies would be that the effectiveness of the awards can be judged against criteria that reflect the recipient country's specific interests and development needs, and its particular political, social, economic, geographical and cultural background.

However, irrespective of who is undertaking evaluations, it is indispensable to find ways of increasing the response rate in the studies. Unless an acceptable number of fellows participate, it is not possible to obtain results that can be used as a basis for decision-making.

Notes

1. Personal communication: B. Amaru, Fellowships, Health Manpower Development, WHO, Geneva, 30 August 1987.
2. Letter: N. O'Hare, Evaluation Unit, TCTD, British Council, London, 5 November 1982.
3. It appears that some supervisors supervised more than one fellow; the study included altogether 128 fellows.

References

- ADAB (Australian Development Assistance Bureau) (1982). *ADAB Annual Review 1980–81. Development Co-operation*. Canberra: Australian Government Publishing Service.
- ADAB (Australian Development Assistance Bureau) (1980). *Training and Education Assistance to Thailand*. Draft Review Report. Canberra.
- Bobritschew, P. (1975). 'Unesco fellowships: an evaluation', *Unesco Chronicle*, 11 (5): 131–134.
- Brady, M. W. (1976). 'An African view of an American experience', *International Educational and Cultural Exchange*, 12 (2): 24–28.
- British Council (1981). *Training and Development*. Evaluation Report. London: Technical Cooperation Training Department.
- Bruce-Chwatt, L. J. (1975). *The Evaluation of Post-Graduate Medical Education Received at the London School of Hygiene and Tropical Medicine by WHO Fellows from the South-East Asia Region*. New Delhi: WHO Regional Office for South-East Asia (SEA/Med. Educ./232).
- Cameroon (1973). *Evaluation du programme des bourses de l'UNESCO en République Unie du Cameroun* (ED/WS/412 Paris).

- Carstairs, J., Haines, B., Hobbs, J. & Sexton, M. (1981a). *Nepal Training Review 1981*. London: Overseas Development Administration.
- Carstairs, J., Chard, S., Clark, B. & Haines, B. (1981b). *Training Review. Pakistan 1981*. London: Overseas Development Administration.
- Churchill, K. G. (1982). 'TC Evaluation: Ghana 1981/82'. London: British Council. (File Ref.: ACC/2308/8).
- Clark, P. J., Kalinda, M. J. & Sumner, G. P. (1979). *Zambia: Evaluation of Training 1978*. London: Overseas Development Administration.
- Coleman, J. S. (1983). *Summary and Analysis of Questionnaire Responses of Former Rockefeller Foundation Scholars and Fellows, Education for Development Program*. New York: Rockefeller Foundation.
- Cotter, W. R. (1979). 'How aid fails to aid Africa', *Foreign Policy*, No. 34, Spring.
- DANIDA (Danish International Development Agency) (1981). *Evaluering af Danida Management Kursus afholdt 25/8-5/12 1980* (Evaluation of DANIDA's Management Course held 25/8-5/12 1980). Report prepared by Blicher-Olsen. Copenhagen, (D.4.j.nr.104.N.236).
- Goldschmidt, P. (1981). *Analytical Review of the World Health Organization's Health Manpower Development Programme 1948-1978*. Country Case Study Report. Geneva: WHO (unpublished document), pp. 55-59.
- Gyr (1977). *Evaluation of the Course on Immunology at the Immunology, Research and Training Center (IRTC), Geneva-Lausanne*. Report I. Berne: Directorate of Development Cooperation and Humanitarian Aid, Ministry of Foreign Affairs (unpublished report).
- Hvoslef (1972). *Administration of Liberia's Scholarship programme*. Paris: Unesco (mimeo).
- JIU (Joint Inspection Unit) (1976). *Report on Fellowships in the United Nations System*. Report prepared by C.S. Jha. Geneva (JIU/REP/76/1).
- Kalejaiye, A. O. (1971). *Report on UNESCO Fellowships Offered under the Different Programmes Since Nigeria Benefitted from Those Fellowships*. Report prepared for the UNESCO Expert Committee on Policies for Training Abroad, Paris, October 1971 (ED/71/Conf.8/Inf.6).
- Lockett, B. A. & Truman, B. I. (1984). 'A retrospective study of the PAHO fellowships program in the Caribbean, 1970-1979', *PAHO Bulletin*, 18 (3): 281-287.
- Maliyamkono, T. L., Ishumi, A. G. M. & Wells, S. J. (1982). *Higher Education and Development in Eastern Africa*. A Report of the Eastern African Universities Research Project on the Impact of Overseas Training on Development. London: Heinemann.
- Mohapeloa, J. M. (1979). 'The contribution of training abroad to manpower self-sufficiency and its side-effects', in T. L. Maliyamkono & Editorial Committee of EAURP, *Overseas Training: Its Impact on Development*. Arusha/Dar-es-Salaam: Eastern African Publications.
- NUFFIC (Netherlands Universities Foundation for International Cooperation), (1982). *NUFFIC Annual Report 1981*. The Hague.
- ODA (Overseas Development Administration) (1979). *ODA's Training Aid*. London.
- Orszyszyna, S. A. (1979). 'Review of the WHO Fellowship Programme in the Western Pacific', in WHO/WPRO, *Conference on Regional Cooperation in the WHO Fellowship Programme, Manila, Philippines, 6-12 February 1979*. Manila: WHO Regional Office for the Western Pacific (ICP/HMD/024-E).
- Oxenham, J. (1981). 'Study abroad and development policy. An enquiry', in P. Williams, *The Overseas Student Question*. London: Heinemann.
- Rattee, A. (1976). *Study Fellows from Bangladesh and Sri Lanka Who Did Not Return Home at the End of Their Awards (1974/5)*. London: Ministry of Overseas Development.
- Rose, P. I. (1976). 'The Senior Fulbright-Hays Program in East Asia and the Pacific', *International Educational and Cultural Exchange*, 12 (2): 19-23.
- SIDA (Swedish International Development Authority) (1971). Promemoria, 1 November 1971. 'Stipendieverksamheten' (The fellowship activity). Stockholm.
- Simons, A. J. (1979). *A Pilot Survey of the Opinions of Study Fellows from Developing Countries on Their Courses in Britain*. London: Ministry of Overseas Development.

- Sperling, P. (1973). 'Evaluating training programs: the AID experience', *Focus: Technical Cooperation*, No. 4:9-13.
- Uhlig, S. J., Crofton, H. E. M. & Thompson, J. H. (1978). *Industrial Training for Kenya: An Evaluation of ODM's Technical Cooperation Programme*. London: Ministry of Overseas Development.
- UNESCO (1971), Indian National Commission. *Evaluation of UNESCO Fellowship Programme (1964-1969)*. Report prepared for the UNESCO Expert Committee on Policies for Training Abroad, Paris, October 1971 (ED/71 Conf.8/Inf.6).
- UNESCO (1974), Thailand National Commission. *Evaluation Study of UNESCO Fellowships*. (ED-74/WS/18, Paris).
- UNESCO (1977), Commission Nationale Voltaïque. *Etude d'évaluation du programme des bourses de l'UNESCO en Haute-Volta (1970-1976)*. Ouagadougou (October).
- UNESCO (1978). *Evaluation of UNESCO Fellowships with Particular Reference to Women*. Report prepared by A. Pineda Tumlrir. Paris, (CPX/FEL).
- UNESCO (1979), Malaysian National Commission. *Evaluation Study of UNESCO Fellowships, Malaysia*.
- World Health Organization (1970). *Evaluation of WHO Fellowship Programme*. Geneva, (PE/June 1970).
- World Health Organization (1984). 'The World Health Organization policy on fellowships', *World Health Statistics Quarterly*, 37 (1): 30-51.
- World Health Organization/AMRO (1970). *Evaluation of the OMS/OPS Fellowship Programme*. Washington, D.C.: Regional Office for the Americas (unpublished report).
- World Health Organization/EMRO (1975). *Meeting of National Fellowships Officers* (Alexandria, 1974). Report of the Meeting. Alexandria: Regional Office for the Eastern Mediterranean (EM/FPS.MTG/5, EM/ICP/HMD/013/RB[6007]).
- World Health Organization/EMRO (1980). *Report on the Meeting of National Fellowship Officers, Amman, 6-8 November 1979*. Alexandria: Regional Office for the Eastern Mediterranean (EM/FEL.MTG./8, EM/MTG.FEL/11).
- World Health Organization/EURO (1973). *The Organization of the Fellowships Programme*. Report on a Seminar held in Trieste, 27-29 November 1972. Copenhagen: Regional Office for Europe (EURO 6001).
- World Health Organization/SEARO (1977). *Fellowships Analysis 1965-1970*. New Delhi: Regional Office for South-East Asia (SEA/WR26/13).
- World Health Organization/SEARO (1979). *Regional Cooperation in the Fellowships Programme*. Report of a Conference. New Delhi: September 1979. New Delhi: Regional Office for South-East Asia (SEA/Med.Educ./364).