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SPECIAL STUDY

The following Special Study prepared by the Post-Evaluation Office is attached for information:

Effectiveness and Impact of Training in
Education Projects in Indonesia

ASIAN DEVELOPMENT BANK

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SPECIAL STUDY

OF THE

EFFECTIVENESS AND IMPACT OF TRAINING

IN EDUCATION PROJECTS

IN

INDONESIA

December 1997

ABBREVIATIONS

MOEC	-	Ministry of Education and Culture
SES	-	Special Evaluation Study
TEDC	-	Technical Education Development Center
VEDC	-	Vocational Education Development Center

NOTE

In this Report, "$" refers to US dollars.

CONTENTS

EXECUTIVE SUMMARY

This Special Evaluation Study (SES) was designed to evaluate the contribution of fellowships to the institutional development goals of Bank-financed projects. It was necessary to assess the effectiveness and impact of fellowships because increasing amounts of resources are spent on them as projects move from infrastructure alone to include more institutional targets.

This SES focuses on education projects in Indonesia. It draws information from representatives of Government offices, universities, and technical and vocational schools who benefited from fellowships through eight Bank-financed projects. The evaluation team visited 14 senior secondary schools and 7 universities, where it met fellows in managerial, teaching, and support staff positions. In addition, five in-country providers of training were examined.

The SES prepared a questionnaire using a model that distinguishes between training inputs, processes and outcomes. For each of these three categories, the SES identified factors that are typically considered when designing and implementing fellowship components. The effects and impacts of these factors on training outcomes were analyzed.

Training inputs examined by the SES include characteristics of fellows, design and administration of fellowships, and inputs from the work environment of fellows. The SES found that most attention was paid to foreign language competence, particularly for overseas training. Language competence did not reveal strong correlation with training outcomes. Professional skills (working efficiency, technical skills, and language competence after training) and interpersonal skills (relationship with colleagues and supervision skills) improved regardless of the level of language proficiency prior to training.

Other characteristics examined were age and motivation. The SES questionnaire results show that training tends to be a mid-career activity. All fellows regardless of age improved their working efficiency after training. Improvement in technical skills seemed to occur more often in the younger group of fellows, while supervisory skills improved most among older fellows. Almost all fellows reported high levels of motivation to attend training, regardless of whether they freely chose or were assigned to training. The correlation between high level of motivation and impacts on working efficiency and technical skills is stronger than the correlation between foreign language competence or interpersonal skills and training outcomes.

The SES analyzed preparatory activities including detailed job-related training needs assessments (involving supervisors of fellows), setting training objectives, and establishing targets for work of fellows after training. The Study found that no detailed training needs analyses were undertaken in advance. Only a small proportion of fellows discussed with their supervisors training objectives and work targets for the time after training, but questionnaire results show that when such discussions did take place, more than 90 percent of fellows improved in working efficiency and technical skills. When supervisors had simply endorsed participation in a fellowship, only 65 percent of fellows reported working more efficiently after training, and 56 percent felt that they had improved their technical skills. Improvements in foreign language usage and interpersonal skills are not clearly correlated to supervisor support.

The SES reviewed the quality and relevance of training. It found examples of excellent training institutions in Indonesia in the vocational and technical education sector. By contrast, overseas universities seem to be better equipped to provide degree training and higher academic education. The well-structured combination of in-country and overseas training produced positive results. The effectiveness of fellowships in improving working efficiency and technical skills did not depend on their duration. Short courses proved as effective as long fellowships, provided the length of training was commensurate with its objectives. A similar observation can be made when comparing the results of degree and nondegree courses.

Training outcomes can be observed at two levels: effects on fellows, and impacts on their working environment. The results of the SES indicate that overall fellowships improved professional and technical skills. Fellows from management positions and secondary schools felt that their ability to keep up to date with new developments in their profession had improved. A smaller proportion of fellows from universities had the same feeling, possibly due to faster changes in their field of specialization and lack of access to professional journals. Fellowships did not show strong correlation with career changes and advancements, but had some positive side effects on the private education sector and industries, where fellows from universities find additional jobs.

The SES observed conditions for reentry into the work environment, working conditions, and working atmosphere. These are some of the parameters that determine whether fellows can effectively apply their acquired knowledge and skills. When returning to their work place, fellows reported to their supervisor or university rector. Only the structured program combining in-country and overseas training required that fellows prepare an action plan and report on its implementation to the training institution. Working conditions were less supportive for fellows from universities, due to the difference in standards between Indonesian and overseas universities. After spending at least two years abroad, university fellows were used to well-equipped laboratories, technical assistants, libraries, and access to the Internet; they found it difficult to resume their research in Indonesia without such working conditions. This problem was not as marked for fellows from technical and vocational schools, because their working conditions beforehand were comparatively better than those at universities. In some of the technical and vocational schools, fellows were required to organize seminars to share their newly acquired knowledge with other staff. This initiative spread training outcomes among a larger group of people and improved working relationships. At universities, fellows helped colleagues with understanding texts that published in foreign languages, but there was no formal exchange of knowledge on professional matters or teaching methodologies. Supervisors could draw on fellows and their newly acquired skills and knowledge for wider institutional benefit; however, they did not seem to be aware of this potential or of ways to harness it.

The SES concludes that fellowships were able to impart knowledge and skills. Fellowship programs could be more effective, however, if their objectives were based on detailed training needs analyses, and if they set work targets that fellows should meet upon returning to their work place. Impacts of fellowships on the institutions represented by fellows are difficult to measure. Nevertheless, the SES found that fellowships can be an effective means for institutional development only if certain conditions are met: management commitment, policies, and reforms that improve work processes. Otherwise, highly trained

fellows may return to a working environment that is not prepared to absorb and use the fellow's new skills and knowledge.

Fellowships should be designed as an integral part of institutional development programs. To maximize their effectiveness and impacts, fellowships should not be implemented unless an institutional analysis incorporating a human resource development strategy is conducted. Each fellow together with a supervisor should analyze training needs and set training objectives and work targets for the postfellowship period.

I. INTRODUCTION

A. Background

1. This special evaluation study (SES) was conducted at the suggestion of the Education, Health and Population Division (East). It was found necessary, given the amount of resources already spent on training and the trend towards increasing the number of fellowships in each Bank-financed project. Fellowships are already included in most, if not all, projects in all sectors and in all developing member countries, so to narrow the Study's focus, it was decided to concentrate on education projects in Indonesia. Indonesia has borrowed $1.5 billion from the Bank in 23 loans to the education sector over the past 20 years. This amount represents nearly 50 percent of the Bank's total lending to the education sector, and 80 percent of lending from ordinary capital resources to the education sector.

2. Of total loan expenditures to the education sector in Indonesia, $304.67 million was allocated for fellowships under 21 projects. In the nine completed projects, a total of $25.01 million was actually spent on fellowships, or 20 percent less than originally allocated (Appendix 1). This reduction has, however, not been accompanied by a decrease in number of fellowships. On the contrary, the number of fellowships more than doubled from around 2,236 fellowships anticipated at appraisal to 4,610 fellowships actually implemented. This indicates that the cost of fellowships must have been overestimated at appraisal. For the remaining 12 ongoing projects, $60.96 million have been spent on fellowships as of September 1997 (Appendix 1).

3. For projects approved up to 1985, an aggregate of 9 percent of total loan amounts was allocated for fellowships; this grew to 24 percent for projects approved between 1988 and 1996 (Appendix 1). The increase reflects that the focus of Bank projects was changing from a time when infrastructure demands were high and more resources were spent on civil works and equipment, towards greater emphasis on institutional development and training.

4. Each project provided training for some or all of the following groups of people: managerial staff and school principals, lecturers and researchers, teachers, and support staff in academic and technical fields.

B. Purpose

5. This SES was designed to assess how effective fellowships are as a means for accomplishing institutional changes and for having an impact on the capacities of institutions where fellows work. In addition to evaluating results, the SES focused on identifying approaches and factors that contribute to the success of fellowships. The evaluation aimed to generate a better understanding of policies and practices that maximize the transfer of learning and influence the development of education systems and services. These insights should help to improve the design of training in future projects to ensure that maximum benefits can be derived from them.

C. Scope

6. The scope of the SES was narrowed down from the 21 projects to the education sector in Indonesia to cover only fellowships provided under eight projects approved between December 1983 and September 1993 (Appendix 2).[1] Three of these projects are completed, while the rest are ongoing or nearing completion. Fellows from projects approved earlier than December 1983 were not considered because the time gap between fellowship and evaluation was too long to yield reasonable insights. Fellows may have retired, or if still working, might have more recently participated in other training (and not be able to distinguish between the fellowships). More recent projects were not included because fellowship programs may not have started, or fellows may not have returned yet from their training sites.

7. In addition, a decision was taken in the design of this evaluation to eliminate courses of less than one month duration. Shorter courses showed large losses in time due to administrative requirements. Thus, no data is presented about them in this Report. Interviews with fellows and administrators indicated that, when all the administration was considered, a month's training for in-country programs and three months for overseas training were generally the satisfactory minimum.

8. The sample of fellowships included in the SES had to be representative of the diversity of fellows, of regions in Indonesia at different stages of economic development, and of the diverse institutions participating in Bank projects. The evaluation team visited 14 senior secondary schools and 7 universities where recipients of Bank-financed fellowships work. It also visited five institutions in Indonesia that have provided training to Bank-financed fellows. Ten different regions were visited (Appendix 3).

9. While the evaluation was concerned with the quality of training provided to fellows, its field work was limited to Indonesia. In spite of the large number of Indonesian fellows who received training overseas, no investigation of overseas training institutions was conducted for this Study. Instead, an assessment of the quality and relevance of overseas training relied on subjective assessments by participating fellows. More attention was paid to the quality of training provided by in-country institutions.

10. For simplicity, the SES does not distinguish between education and training but uses the generic term "training" for all types of fellowship programs, regardless of their duration, venue, or degree or nondegree level. Participants in training courses are referred to as fellows.

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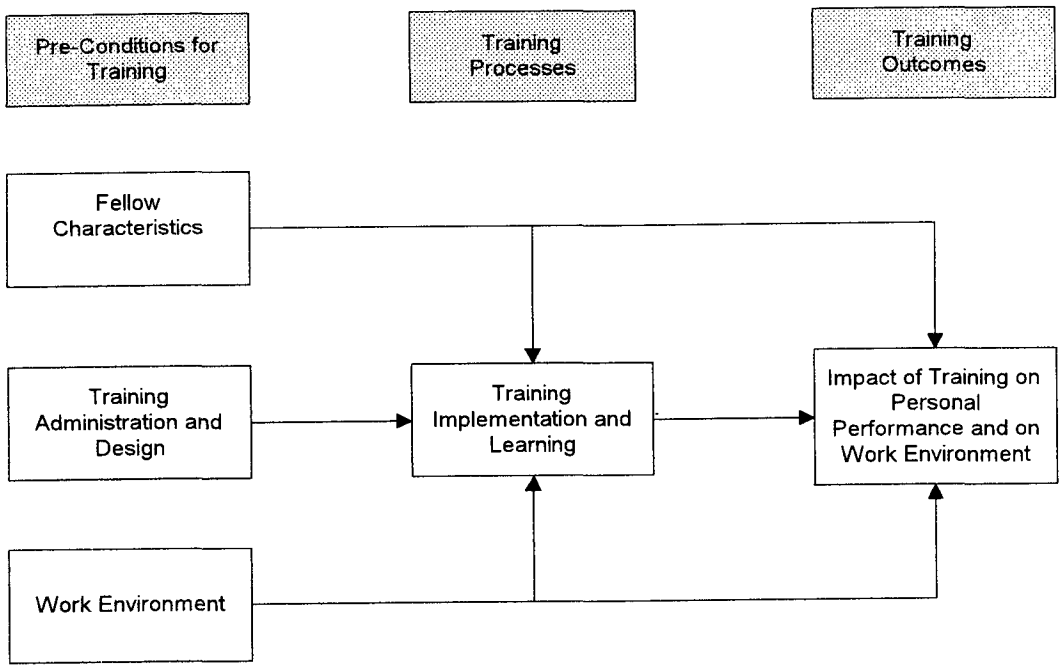
[1] Loan 1100-INO: *Technical Education Development,* for $100 million, approved in 26 September 1991, and Loan No. 1194-INO: *Junior Secondary Education*, for $105 million, approved in 19 November 1992, were excluded from the SES because details on fellows, their training, and their current location were not available to the evaluation team. The SES found that none of the projects had information systems that provided detailed and easily accessible information on fellowships, but the evaluation team is grateful to the National Development Planning Agency—Badan Perencanaan Pembangunan Derah (BAPPENAS) and executing agencies for assembling hard copies of data on fellowships that had been implemented.

D. Methodology

11. The SES adopted a model developed by Baldwin and Ford[1] as a framework to structure its investigation. The model considers inputs to preparing and implementing fellowships and takes into account the institutional context that is meant to be improved as a result of fellowships. The schema, with some modifications, is shown in Figure 1.

Figure 1: Analytical Framework



12. The model suggests that three types of prerequisites affect the quality and effectiveness of training programs: characteristics of the fellow, design and administration of training, and the work environment of the fellow. These factors influence how well training can impart new skills and knowledge, which in turn is necessary to have an impact on the working environment of fellows.

13. Characteristics of fellows determine how well they are prepared to participate in and benefit from training. They include factors such as educational background, competence, language skills, motivation, attitude, and age. Administration and design of training define how well the process of selecting and matching fellows with their training programs functions, and how well suited the content and delivery of training courses are to the learning requirements of fellows. Good design can lead to superbly conceived programs that are almost seamlessly integrated with the working situation they are intended to enhance. Conditions and requirements of the work environment, including institutional policies, are important inputs to training. They determine what fellows should be learning to improve their

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1 Baldwin, T.T. and Ford, J.K. Transfer of training: a review and directions for further research. *Personnel Psychology*, 41,1988, pp. 63-105.

contributions to the functioning of their work place. Support of supervisors affects motivation and helps in setting goals that fellows should be able to attain through their learning experience.

14. At the center of the diagram are training processes, i.e., the ways in which teaching and learning activities are implemented. Training processes can take a variety of forms. Criteria for determining different types of training are described in Appendix 4. They can range from traditional 'chalk and talk' programs to sophisticated uses of information technology. No one type of training process is the "best". Instead, choices have to be made among options to suit particular training needs and objectives (Appendix 4).

15. The model suggests that all of these factors influence the application of training to work situations. The existing institutional framework also plays a significant role in determining whether learning can be utilized effectively. Positive examples include situations in which fellows can apply their knowledge to improve their own performance and contribute to the better functioning of their office. Even better are cases in which fellows also contribute to the professional development of colleagues and to improvement of the entire institution. Imaginative leadership and supervision, supportive policies, a constructive professional group atmosphere, and requisite infrastructure help promote positive results. Some indicators that can be used to establish baseline information and measure progress in each of the model's categories are shown in Appendix 5. Appropriate indicators, however, have to be developed for each institutional development and fellowship program.

16. Based on this framework, the SES designed a case study model to assess the impact of fellowships on the working environment of former fellows. The model involves collecting and analyzing data on the working environment of fellows and on changes (training impacts) that have occurred since fellowships were implemented. The case study model also developed institutional performance indicators, but the model was abandoned because benchmark information for comparing the institutional context of fellows before and after training was not available. Instead, the evaluation team visited the work place of former fellows. During these visits, fellows and their supervisors[1] were interviewed, and the work place was inspected. This exercise rendered general impressions of the fellows' working environments and changes that may have occurred since training.

17. To overcome the lack of benchmark information,[2] the Study prepared a questionnaire to collect data on the situation of fellows prior to training (Appendix 6). In addition, the questionnaire included questions to gauge the fellows' personal assessment of the quality and usefulness of their fellowships. At each project site, fellows were called to meetings for group discussion. Subsequently, the questionnaire was administered to them and collected upon completion. Visits to their work place were conducted afterwards.

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1 In total around 40 supervisors were interviewed at schools and universities that had received assistance from Bank-financed projects.

2 A system that requires assessment of the training needs of each fellow prior to nomination for a fellowship is not in place. A training needs assessment should describe skill level before training, and define the type and level of skills needed for the job in the future. It should set training objectives. This information is needed to identify the most appropriate training strategy and is essential for assessing the outcomes and impacts of training.

18. The SES met 60 percent of fellows in the locations visited (Appendix 3). A total of 193 questionnaires were completed.[1] Respondents were grouped into the following occupational categories:

(i) managers and administrators in the technical and vocational education system, including school principals, department heads and officials in administrative offices at national and local levels (15 respondents);

(ii) staff, primarily teachers, in senior technical and vocational schools, Vocational Education Development Centers (VEDC) and Technical Education Development Centers (TEDC) (114 respondents); and

(iii) university staff, primarily academics engaged in teaching and research, but also library staff (64 respondents).

19. The sample is large enough to gain insights into the results of fellowships; however, cross-tabulations of data on some questions need to be considered. Overall the sample is reasonably well balanced in terms of gender: 46 percent were female. However, the sample shows a clear bias towards the teaching profession at senior secondary schools, where 56 percent of fellows are female, can be observed. Women are less well represented in manager positions (27 percent of fellows) and university staff (33 percent of fellows). The extent to which the populations from which these samples are drawn (i.e., total fellowships awarded to individuals from the education sector) are themselves gender balanced is not known, because data on fellowship programs does not contain requisite details.

20. A case study model was developed for local institutions that trained Bank-financed fellows. This model was meant to describe training conditions at these institutions so that advantages and disadvantages of different types of training (long term versus short term, overseas versus in-country, degree program versus nondegree program) could be described. Positive examples resulting from this investigation are shown in Appendix 7.

II. FINDINGS

A. Preconditions for Training

1. Fellow Characteristics

21. That personal characteristics and training needs of prospective fellows are normally not documented or analyzed prior to training is a weakness in the administrative system for fellowship programs. Thus, the SES had to rely on its questionnaire to establish the profile of fellows before training. The most frequently mentioned prerequisite for participation in the fellowship program was foreign language competence. The questionnaires showed the following results (Table 1).

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[1] Because the SES distributed and collected completed questionnaires during meetings with fellows, no calculation of a respondent rate to mailed questionnaires was necessary.

Table 1: Foreign Language Competence

Item	Managers	Teachers	University Staff
• percentage of fellows requiring foreign language competence for training	87	40	78
• mean level of competence at start of training; 1 = very poor, 7= excellent	5.4	4.9	4.5
• percentage of fellows at lower levels of language competence who rated their foreign language ability poor or very poor	0	10	23

22. Teachers clearly perceived language competency to be less of a requirement for the kinds of training they undertake than managers or university staff. This is largely due to the fact that 75 percent of fellowships for teachers included in the sample participated in in-country training (para. 36), thus did not perceive the need to know foreign languages for their training. Nevertheless, it became apparent during site visits that foreign language competence is useful regardless of whether training takes place in-country or overseas. This is because most literature, standards for cataloging books, manuals for computer science, and operating manuals for machines are in English.

23. The low mean level of language competence of university staff self-assessment can be explained by the fact that (i) their experience at an overseas university is likely to have exposed them and their language abilities more than if teachers or managers travel in a group where one-on-one dialogues in a foreign language can be avoided; (ii) the level of requisite language competence is likely to be higher for fellows attending academic programs, particularly when specialized technical language is used; and (iii) written language test results might not adequately reflect actual spoken language capabilities.

24. With computer skills becoming just as essential as language skills, senior administrators at the Ministry of Education and Culture (MOEC) suggested the use of Computer Aided Language Learning as an effective and efficient method to combine language and computer skill learning. However, there were few examples in which attention was given to the development of computing skills. Most instances were personal initiatives.

25. The range of fellows' age (33-61 years for managers, 23-59 years for teachers, and 28-54 years for university staff) does not reveal a clear pattern, but it suggests that training tends to be a mid-career activity. The majority of respondents to the SES questionnaire were in the age group between 35 and 45.

26. To assess the motivation of fellows, the evaluation team asked three questions, the fellows' own assessment of their level of motivation at the commencement of training, their perception of whether they had thought training would be worthwhile for their job, and their degree of freedom to attend the training. Research by Baldwin and Ford (para. 11) concludes that well-motivated staff, free to participate in a training activity that they see as worthwhile, will derive maximum benefit from that training.

27. Results from the questionnaire (Table 2) reveal that all groups reported entering training with high levels of motivation and a belief that the training would be worthwhile for their jobs. However, university staff were given significantly more freedom to choose to attend or to not attend. This indicates a much greater degree of staff autonomy in this sector and perhaps a more tightly managed process in technical and vocational education. Contrary to conclusions by Baldwin and Ford (para. 26), the results of the questionnaire show that the freedom to participate does not appear to be a factor influencing motivation. Acceptance of compulsory participation may possibly reflect the Indonesian cultural norm of "carrying out one's duty".

Table 2: Participants' Motivation for Training Prior to Training

	Managers	Teachers	University Staff	Total
• mean motivation to attend training 1 = not motivated at all, 7 = very highly motivated	6.6	6.6	6.5	6.6
• mean rating of how worthwhile for job the training was anticipated to be	6.7	6.8	6.6	6.7
• percentage of fellows who had a choice to attend the training	33	25	61	38
• percentage of fellows who did not have a choice to attend the training	67	70	28	55

2. Training Design and Administration

28. Included among prerequisites for successful training are predeparture training and administration of fellowships. The former is a means to prepare fellows for their overseas training, while the latter is more concerned with correct course registration and facilitation of fellows' needs, such as payment of stipends.

29. Fellows typically undergo limited predeparture preparations, confined to language training and a briefing with senior staff of the university or school. As a result, fellows seldom have clear objectives other than to participate in the prescribed course. They are not geared towards extracting from the training such information, skills, and knowledge that are most relevant to their work environment. The main reason for this shortcoming is that those responsible for selecting fellows lack time, tools, and understanding for predeparture training. In addition, not many training institutions follow the type of structured approach offered by TEDC, Bandung (Box 1). The program offered by TEDC, Bandung combines in-country with overseas training. Its nine steps include initiatives to link training and work experience, and built-in evaluations to ensure fellow performance. Staff at TEDC, Bandung are emphatic that the program has contributed to training efficiency and effectiveness, and to maximum change and impact on return of fellows, because action plans are prepared and their implementation

monitored as part of the training program.[1] Other positive examples are described in Appendix 7.

Box 1: Best Practice—Nine Steps of an Integrated Fellowship Program at TEDC, Bandung

1. In-country training in languages and planning tools (up to three months).
2. Evaluation of fellows' performance during first in-country training.
3. Return to schools to identify areas requiring improvement that fellows plan to work on during and as a result of their training.
4. Evaluation of fellows, including observation of professionalism in such matters as attendance, course participation and academic contribution. Professionalism is used as a criterion in the on-going process of selection prior to confirming final lists of participants for overseas training.
5. Intensive language and cultural orientation program at TEDC Bandung (two months).
6. Overseas program of professional training.
7. Post-training program at TEDC to review what was learned and to prepare an action plan for their schools based on their earlier needs analysis and their training.
8. Return to schools and implementation of action plans.
9. Follow-up visit of fellows to TEDC, made after several months at their schools to review their achievements.

3. Work Environment

30. In addition to a structured fellowship program, the support of the supervisors of fellows is essential. Presumably, supervisors expect fellows to perform differently (the same tasks better, or other tasks) after training. These expectations determine aspects important to and needed at the work place that fellows should be learning during their training. Without the support of supervisors, participants in the program offered by TEDC, Bandung would have difficulties with subsequent application of their new knowledge. The results of the questionnaire (Table 3) show that the majority of supervisors encourage staff to participate in fellowships. However, only a few supervisors discuss work that fellows are expected to do after completing their training, or help set training goals. This supports the impression that supervisors are not familiar with their role in preparing fellows, and with ways for improving the effectiveness of training (para. 29).

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[1] The number of fellows interviewed by the SES who participated in TEDC Bandung's training program is not significant enough to compare their performance against that of fellows who did not follow the TEDC, Bandung approach.

Table 3: Supervisor Support to Fellows
(percent of respondents)

Type of Supervisor Support	Managers	Teachers	University Staff	Total
• actively encouraged staff to attend training	63	59	64	61
• discussed work that the fellow might do after completion of the training	21	18	8	15
• helped fellows to set training goals	16	16	9	14
• simply agreed to attendance		6	17	9
• other		1	3	1

B. Training Implementation

1. Quality and Relevance of Training

31. The diversity of courses attended, both in-country and overseas, makes it difficult to gauge accurately how training was implemented, the quality of programs attended, and what was learned by fellows. Nevertheless, the results of the questionnaires show that fellows assessed the quality of their training highly.

32. In the vocational and technical education sector, the SES observed several good examples of training courses provided in-country. TEDC, Bandung was already mentioned for examples of best practices (Box 1). Their nine-step approach ensures a systematic study program, and continuous contacts with foreign training institutions that provide the overseas portion of the training program. This motivates TEDC, Bandung to keep up with international standards. Similar positive examples were observed at the Graphic Arts Institute, Jargakarsa and the VEDC, Malang. These institutions develop their courses in consultation with MOEC and industries, have built-in quality monitoring mechanisms, and are supported by requisite infrastructure (Appendix 7). They provided training for project-financed fellows, some of whom participated in regular courses, while others took part in programs tailored to project-specific requirements.

33. In contrast to these programs tailored to the needs of technical and vocational schools, participants in postgraduate training follow standard course offerings. These fellowships enable fellows to attain academic degrees in fields required by their home universities. A hidden assumption is that weaknesses in teaching skills would be overcome automatically. However, standard courses do not improve skills and knowledge for designing courses, preparing effective class presentations, developing teaching materials and case studies, choosing among different teaching methodologies, adopting appropriate evaluation principles, or providing feedback to students to help them improve their performance. As a result, fellowships designed to raise the performance level of Indonesian universities are actually locking them into a western-oriented, 1970s mode of operation that emphasizes research and disciplinary knowledge at the expense of a crucially important skills in teaching and learning, curriculum, assessment and evaluation.

34. A further difference lies in the built-in monitoring system. At Indonesian universities the responsibility for quality rests almost exclusively with individual lecturers who act with little systematic coordination or leadership in teaching. In contrast to the approaches to monitoring and evaluation in overseas universities,[1] the evaluation of teaching in Indonesia still rests on word-of-mouth comments from a few students. This is inadequate for ensuring improvements in the quality of university courses and teaching methodologies. It also puts students who are not part of such an informal information chain at a disadvantage. Degree-earning fellowships, providing training only on the matter of their subject degree program, obviously cannot contribute to resolving this problem. Fellowships for degree training cannot address systemic problems that in fact require institutional reforms.

35. The quality of in-country degree training suffers under the limited time and attention that lecturers pay to classes and postgraduate students. Formal systems for monitoring the attention of lecturers to their teaching responsibilities exist nominally, but are not strictly implemented. In reality, lecturers have a number of jobs in addition to teaching. As a result, classes do not always take place and supervision of postgraduate students is minimal. Therefore, it takes, on average, one to two years longer to complete degree studies at an Indonesian university than at an overseas university. Contrary to expectations at project appraisal, fellowships for university staff have not contributed to increasing contact time between lecturers and students. Instead, lecturers have access to better and possibly more opportunities for additional employment outside the university after completing their fellowships.

2. Venue

36. The majority of eligible managerial (80 percent) and university staff (71 percent) were awarded overseas fellowships, whereas 75 percent of fellowships for teachers were used for in-country training.

37. For university staff, the preference for overseas fellowships is explained by the relatively poor quality of the Indonesian higher education system. The higher prestige associated with overseas degrees also adds to the profile of the university faculty, which is useful when applying for accreditation of study programs. In addition, overseas studies provide access to up-to-date content and teaching methodologies, modern laboratories, well-stocked libraries, and a disciplined academic atmosphere. In-country programs have the advantage that trainers are familiar with the country context, and thus can relate to questions or difficulties faced by fellows. Overall, however, in-country academic training was normally preferred for family and social, rather than academic or professional, reasons.

38. Overseas programs reportedly had fewer problems with their quality as a whole; however, difficulties were experienced with their applicability to the Indonesian context. Some of the degree graduates mentioned that their field of study would have required tropical specimens, which apparently were not available at the universities where they studied. Teachers found that, in most countries they visited, the class size was much smaller than in

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[1] Universities in Australia, Europe, and North America conduct internal quality audits to give feedback to professors. In addition, public interest groups such as student associations or graduate councils publish comparative performance data on universities.

Indonesia. Another problem is that teaching aids were not available to teachers at local schools, so that some of the methodologies they learned during overseas training could not be replicated.

3. Length of Training

39. The length of training is directly related to occupational groups: university staff typically participate in degree training that takes a minimum of two years, often longer, whereas managerial staff and employees of senior secondary schools participate in shorter courses. The length of study varied between one month and more than three years. The number of fellows included in the evaluation sample by length of study is presented in Table 4.

Table 4: Length of Training
(percent of respondents)

Length of Training	Number of Fellows
• 1-6 months	111
• 6 months - 1 year	17
• 1 year	7
• 2 years	25
• 3 years	21
• more than 3 years	8
• not specified	4

4. Training Strategies

40. Criteria for determining training strategies include venue and length of study. Bank projects employed training programs of varying duration and offered not only overseas and in-country fellowships but also an innovative combination of both (para. 29, Box 1). A similarly broad range of strategies was used in terms of accreditation (degree and nondegree training), autonomy of study, program continuity, and integration. Appendix 4 describes criteria for determining different training strategies.

41. The SES excluded short courses (para. 7), which would have a single focus as opposed to longer courses with multiple focuses. Comparing the effectiveness of short courses to that of multifocus courses is beyond the scope of this Study. Training at other physical locations than at training institutions—e.g., on-the-job training, distance learning, home and field work—were not part of this evaluation, so no comment can be made on their effectiveness compared with that of institutional training.

C. Training Outcomes

42. The results of the questionnaire show that all three professional groups assessed the impact of their training positively (Appendix 8). More than 70 percent of managers found that their professional skills (including working efficiency, technical skills, and

language competence) improved after training. They felt that fellowships were less effective in improving their interpersonal skills (relationships with colleagues and supervising skills).

43. Over 85 percent of teachers reported that their working efficiency and use of technical skills had improved after training. Only 46 percent of teachers felt that their language competence had improved after training, although this may be explained by the fact that most teachers received in-country training (para. 36). For 83 percent of teachers, working relationships with colleagues improved after training. A far smaller number of them (47 percent) felt that their supervising skills had improved, perhaps because most teachers do not have supervisory responsibilities for other staff.

44. Among fellows from universities, 81 percent felt that their working efficiency increased; 78 percent reported improvements in technical skills; 75 percent judged that their language proficiency had improved. Fellowships affected interpersonal skills less positively in this group of fellows (56 percent of them reported improved relationships with colleagues), possibly due to their long absence. Improvements in supervisory skills were as low as those reported by teachers, probably for the same reason, namely that they have few supervisory responsibilities.

1. Effects of Preconditions on Training Outcomes

45. The results of the questionnaire (Appendix 9) do not show a clear correlation between language competence and the impact of training on professional or interpersonal skills. Groups with low and high language competence report similar improvements (above 80 percent) in professional skills. However, fewer in the group with medium level of language competence report improvements in professional skills: 79 percent improved working efficiency, 69 percent improved use of technical skills, and 62 percent improved use of language skills. One possible explanation for this is that 102 fellows participated in in-country training for which foreign language presumably was not a prerequisite. They should not have responded to the question that seeks to correlate language skill with training outcomes.[1] However, 114 fellows responded to the question, i.e. 12 more than expected, a figure that may distort results. Data on prior language competence as related to improved interpersonal skills does not show a clear correlation.

46. The respondents were divided into three age groups: below 35 years, between 35 and 45 years, and above 45 years (Appendix 9). Questionnaire results show that improvements in working efficiency were gained by, on average, 85 percent of all respondents regardless of their age group. Improvements in technical skills were experienced by 85 percent of respondents in the youngest age group as compared with 83 percent in the middle age group, and 80 percent in the group above 45 years. While the difference between these groups is not particularly big, the trend might indicate that fellows in the younger age group are more concerned with technical skills. In comparison, managerial skills are more important to the older age group fellows. This is reflected in the questionnaire results correlating age and supervising skills; 69 percent of the oldest age group report improved supervisory skills, which

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[1] Question 10 of the questionnaire was to be completed only if foreign language competence was a prerequisite to their training. In response to question 10, fellows were required to indicated the level of their language competence prior to training (Appendix 6).

is considerably higher than improvements reported by the other two age groups (42 percent and 46 percent, respectively). The correlation between foreign language skill and age shows that a larger share of the two younger groups (around 60 percent) felt that training had improved their foreign language skills. Only 49 percent of the older fellows reported such improvement.

47. The correlation between motivation to attend training and training outcomes is less clear when compared across groups with different motivation levels (Appendix 9). One reason for this is the small number of respondents with low levels of motivation. For the group of highly motivated fellows, questionnaire results show that more than 80 percent of them reported improvement in working efficiency and technical skills. In comparison, fewer of the highly motivated fellows felt that their foreign language skills (57 percent) or supervising skills (49 percent) had improved after training.

48. Questionnaire results show that when supervisors discussed with fellows training objectives and helped set training goals, more than 90 percent of fellows reported improvements in working efficiency and technical skills. When supervisors simply endorsed participation in a fellowship, only 65 percent of fellows reported working more efficiently, and 57 percent felt that they had improved the use of their technical skills. Foreign language usage and interpersonal skills are not clearly correlated level of supervisor support.

2. Effects of Training Implementation on Training Outcomes

49. Fellowships were grouped by their duration as follows: 1 to 6 months, 6 months to 1 year, 1 year, 2 years, 3 years, more than 3 years (Appendix 10). The results of the questionnaire show that more than 80 percent of fellows in each group reported improvements in working efficiency and technical skills.[1] This indicates that shorter courses can be as effective as longer training programs, provided the length of study is commensurate with training objectives. A small proportion of participants in shorter courses feel that their usage of foreign language improved as compared with 96 percent and 100 percent of fellows studying for one and two years, respectively. Somewhat surprisingly, only 71-75 percent of fellows studying for three or more years felt that their language skills had improved. In part, this result may be due to the relatively small sample size. In addition, longer studies and increased knowledge of the foreign language might increase fellows awareness of their own language ability.

50. More than 85 percent of fellows participating in nondegree courses reported that their working efficiency and technical skills had improved. This compares favorably with around 77 percent of participants in degree courses reporting improvements in the same two areas. However, this discrepancy is likely to be due to the different sample size. Degree courses were more effective in improving foreign language competence, probably because of their longer duration. In addition, a larger proportion of the nondegree courses, shorter by

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[1] Exceptions to this are fellowships of three years (71 percent of fellows in this group reported improvements in working efficiency and technical skills) and fellowships longer than three years (63 percent found that their technical skills had improved). The SES has no other explanation than that sample sizes in these groups are relatively small. Therefore, one or two responses other than "better" affect the percentage more seriously than if the sample size were larger.

definition, took place as in-country training, not affecting foreign language competence. Around 77 percent of fellows participating in nondegree training reported improved relationships with colleagues, while only 59 percent of participants in degree training reported such improvement. This result can be explained by longer absence during degree training, and could be influenced by competitive reasons.

51. Around 94 percent of participants in combined in-country and overseas training courses reported improvement in professional skills (working efficiency and technical skills), which is about 10 percent above the levels of improvement reported by fellows in in-country or overseas training. Participants in these combined courses also scored higher on improvement in interpersonal skills (Appendix 10). This underpins the observation made on the effectiveness of TEDC, Bandung's nine-step approach to training.

3. Effects of Training on Fellows

52. The sustained effects of fellowships on skills and knowledge of fellows are demonstrated by their ability to keep their professional development skills and knowledge up to date. Responses to the questionnaire show a very positive picture: on average, 78 percent of all three occupational groups maintain their knowledge and skills at a current level. The percentage is even higher for fellows in the managerial (87 percent) and senior secondary school (86 percent) category, but lower for university staff, where only 60 percent are able to keep their knowledge current. This has to do with the pace of change in research being faster than for the other two occupational categories, difficulties in accessing recent academic information, and the perception of fellows. Academics may be more acutely aware of continuous changes in their field of specialization, particularly after their overseas experience.

53. Training can have a variety of effects over and above learning to perform a new job or an existing job better, such as changes in status through promotion or in income. Participants in the study were asked for information about these effects, and their replies are summarized in Table 5. Training has not had dramatic effects on job status or income. Between a quarter and a third of participants indicated they were promoted and their income increased, and some others experienced career mobility, but there is no evidence that these outcomes are attributable to training. On the contrary, long absence during overseas training normally has an adverse effect on fellows, as their promotion schedule may be interrupted.

Table 5: Training Effects on Career and Income
(percent of respondents)

Career or Income Changes	Managers	Teachers	University Staff	Total
• little or no progress in career	50	37	31	36
• promotions	28	28	32	29
• new jobs	6	26	9	19
• other career changes	17	8	28	15
• salary increase	33	38	24	33

54. Interviews also revealed some unforeseen effects, such as benefits to the private education sector. Private universities employ teaching staff from public universities (part-time appointments held in addition to jobs at public universities), so better qualifications among lecturers benefit private schools as well. Some overseas fellows make use of their language skills by setting up language institutes. Industries, another source of additional employment opportunities for staff from public universities, also benefit from fellows' improved knowledge and skills. All of these employment opportunities benefit former fellows in the form of additional sources of income.

4. Impacts of Training on the Work Place of Fellows

55. Impacts of fellowships are changes in the working environment of fellows brought about as a result of their training. Ideally, such changes should be measured scientifically against benchmark information. The SES attempted to assess the impact of fellowships by examining conditions that fellows encounter when returning to their work place, highlighting factors that affected the impact of fellowships.

a. Reentry into the Work Environment

56. Apart from the program offered by TEDC, Bandung, it was apparent that little if any attention is being given to the reentry of fellows. While long-term fellows suffer a greater reentry shock, the effectiveness of fellows returning to their work place and wanting to apply their knowledge and skills may be the same, regardless of duration, venue, or type of studies. The main determinant in this respect is the receptiveness of the working environment, particularly that of fellows' supervisors and colleagues.

57. The lack of a structured reentry process is consistent with the way fellowships are conceived and implemented: prior to departure, little thought is given to the expectations in the training or to the tasks fellows are supposed to perform after their return. After return, most of the fellows resume where they had been before their departure, which is particularly frustrating for those who participated in longer term degree training. All of this illustrates that fellowships are not perceived as a means to improve institutional performance but rather as an education opportunity to the benefit of the individual fellow, based on the assumption that institutional benefits will follow automatically (para. 33). However, such an assumption makes the actual impacts of fellowships entirely dependent on the willingness of fellows, supervisors, and colleagues to apply training results and ignores the fact that institutional change and improvement require systematic planning and effort. The result may be, as experienced at universities, that fellows use their improved qualifications to get other jobs in addition to their university employment, which ultimately reduces time spent on their teaching responsibilities.

b. Working Conditions

58. Most often, returning fellows from universities faced difficulties with their working environment. During their overseas studies they became used to well-organized laboratories with skilled technical support staff keeping laboratories and equipment in good order, well-stocked and up-to-date libraries, and access to current journals and sources on the Internet. Conditions at Indonesian universities are far behind, which dampens enthusiasm and possibilities for fellows to apply their new skills and knowledge.

59. The contrast is not as drastic for fellows in managerial disciplines or from senior secondary schools, largely because their training is much shorter; thus, their adjustment to different working conditions is not so strong. Furthermore, the SES found that in Indonesia conditions in senior secondary schools for vocational and technical education tend to be superior to those at universities. This was illustrated not only by the cleanliness and organization of school grounds, buildings and workshops, but also by the stock of equipment in good repair and overall working atmosphere. Again, the positive examples of in-country providers of training show that, in the technical and vocational education sector, a systematic approach embeds fellowships into an overall change process that in turn contributes to effectiveness and constructive impacts of fellowships.

c. Working Atmosphere and Relationships

60. In the technical and vocational education sector, a policy initiative called the Integrated School Development Policy draws on and maintains skills acquired by fellows and ensures that schools benefit from their experience. Fellows are required to organize seminars to share their knowledge with staff who have not received training. Such an initiative not only spreads the impact of training, but improves working relationships as fellows share their experience and knowledge. The extent to which these seminars are formalized and held regularly depends on the initiative of the respective school principal. The evaluation team observed several such examples during visits to secondary schools; however, data in Table 6 show that the approach is not used universally.

Table 6: Supervisor Support for Application of Training to Work
(percent of respondents)

Type of Supervisor Support	Managers	Teachers	University Staff	Total
• helped set work or career goals	4	16	9	13
• invited fellow to make presentations	17	23	24	22
• gave feedback on work performance	9	5	4	5
• no support		2	15	5

Several responses to questions were possible. Not all fellows answered the question.

61. By contrast, in the university context former fellows have no obligation and little incentive to share their experience with their colleagues. In a few cases, fellows provided individual assistance to help translate English texts, but none of the fellows had discussed different forms of teaching or researching with their colleagues, so adaptation of foreign methodologies and their introduction into the teaching and research programs of the university remained isolated, if they took place at all. The evaluation team was not able to obtain a conclusive response that would explain this situation, but the working atmosphere seems to be such that team work is not encouraged or rewarded. Nevertheless, the evaluation team came across one isolated example in which a group of fellows from one university in Indonesia had studied at the same overseas university and, on return, continued working as a team. They were supported by a bilateral grant project, which motivated and financially supported their research work.

62. Other support that would enhance the utilization of learning results and impact of training on the institution includes career development (motivating fellows to apply the newly acquired knowledge) and feedback on work performance (signaling how far changed performance is recognized and appreciated). As illustrated in Table 6, the human resource management systems of education institutions in Indonesia do not foresee or facilitate such performance measures.

63. A repeated observation by fellows is that, after studying overseas, they are more dedicated and disciplined in their work. During interviews it emerged repeatedly that this new discipline was a primary factor in achieving sustainable training effects. Discipline in Indonesia is generally understood to mean an individual's dedication to report for work regularly and on time and to complete assigned tasks diligently and professionally, including interacting with others. The following conclusions were drawn from interviews and discussions on how to instill disciplines for the application of new knowledge.

(i) The impact of structured, long-term overseas training on attitudes and practices is reinforced when a fellow returns to an environment where new knowledge and skills are welcomed and supported by other trained personnel; impacts are weakened or lost when fellows return to their former jobs in an uncomprehending and unappreciative environment, such as prevail in some university departments.

(ii) The "culture" of organizations that expect regular attendance and rigorously monitor performance is most apparent in vocational institutions such as VEDC, Malang and TEDC, Bandung.

(iii) The regular presence of international consultants provides a role model Being at work on time and regularly unless ill is a novel behavioral pattern in many places in Indonesia including leading universities.

(iv) The continuity of development loans and grants not only provides needed resources, but the monitoring and evaluation processes attached to them further stimulate disciplined management and behavior.

(v) Developing and encouraging the idea of self reliance rather than of waiting for others or blaming the system strengthens both individuals and the institutions where they work.

III. CONCLUSIONS AND RECOMMENDATIONS

A. Overall Assessment

64. The SES concludes that knowledge and skills have been imparted through fellowships, but their effectiveness could have been increased if rigorous training needs analyses had been conducted. Systematic analyses would also provide adequate baseline information that could enable decisionmakers to monitor the effectiveness of training and to choose among training strategies. In addition, criteria listed in Appendix 4 should be applied when deciding on appropriate training strategies.

65. Impacts on institutional performance were difficult to quantify. Positive changes were observed at technical and vocational schools, although other factors such as policy framework, support from supervisors, the interest and cooperation of colleagues, and the availability of physical facilities influenced the impact of fellowships. This became apparent from visits to schools, and even more so from a comparison of schools with universities. While any given school received fewer fellowships than any of the universities,[1] indicators such as the state of repair of facilities and the quality of education services is better at schools than at universities.[2]

B. Lessons Learned

66. To ensure effectiveness and constructive impact, fellowships need to be understood, designed, and implemented as part of an institutional development program. It is often assumed that fellowships automatically contribute to building institutional capacities. However, their effects and impacts remain largely inconsistent, depending on fellows, their supervisors and colleagues, and their working environment. The assumption of automatic effects neglects that institutional changes require management commitment, conducive policies, and a working environment that makes conscious use of the new knowledge and skills of fellows. An integrated institutional development strategy, with fellowships being one means of implementing it may promote better results.

67. The SES sought to identify whether one form of training is more effective than others. It reviewed criteria such as location and duration (thus implicitly the cost[3]) of training, and concluded that no such generalization can be made. The experience of vocational and technical education development centers shows them to be excellent providers of in-country training. The SES noted the positive example of combined in-country and overseas training, whereby systematic in-country preparations are an effective means to maximize outcomes of overseas training. The higher education system in Indonesia continues to suffer from various problems, so it does not yet provide a viable alternative to overseas training. As for the duration of training, it was illustrated that the effectiveness and impacts were not dependent on absolute length of study but rather required an appropriate duration for the subject matter to be studied.

68. Discipline was identified by staff of vocational and technical education development centers as a quality that is essential for successful application of learning. Discipline results from several sources, including overseas study in academically disciplined environments, sustained long-term contact with overseas institutions, the presence of full-time consultants on campus, and the need to serve effectively both schools and industry. The impact of more than a decade of sustained inputs at VEDC, Malang, TEDC, Bandung and

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1 Loans to the secondary education system cover a large number of schools, whereas loans to the higher education system tend to focus on a smaller number of universities. As a result, the number of fellowships awarded to each university tends to be higher than that awarded to each school.

2 The Directorate General of Higher Education in Indonesia is well aware of the problems with the quality of the higher education system, and aims to improve it with the assistance of loans from the World Bank and the Bank.

3 The SES could not compare the cost of the different forms of training because data available from the various sources is aggregated and cannot be computed to reflect the cost per fellowship.

VEDC, Sawangan is apparent in both the physical and human resources at these key institutions (Appendix 7).

C. Follow-up Actions

69. The following recommendations are directed at the Government as well as the Bank as both are involved in and responsible for designing fellowships.

70. Training programs should be designed in such a way that they are integrated into a broader institutional development program, and eventually can become part of a sectorwide capacity building program. To maximize their effectiveness and impacts, training should not be implemented unless

(i) the strengths and weaknesses of institutions from which fellows are drawn are analyzed, identifying changes in their human resource profile that are needed and expected to result from the training program;

(ii) a human resource development strategy is developed on the basis of such an analysis;

(iii) skills and knowledge of fellows are determined and assessed, reflecting job requirements and current qualifications, comparing them with anticipated responsibilities that fellows will be expected to fulfill after their training and at the end of the institutional development process;

(iv) supervisors are trained to support fellows during predeparture training and at reentry. (This would help them supervisors see and use fellowships as a means for institutional development.);

(iv) fellows together with their supervisor develop a set of targets to attain during their training and after returning to their work place. (These targets should be documented and used to help design the training program and should be kept on record for fellows and supervisors to develop an action plan after the fellows' return.); and

(vi) a clearly defined mechanism exists for assisting returned fellows to apply the outcome of their training.

71. Baseline and monitoring data should be collected that enables the costs and benefits of training to be evaluated.

72. In developing training programs, alternative strategies should be considered. They should be part of each institution's the human resource development strategy and should consider the criteria listed in Appendix 4 when deciding on the best training options.

73. The approach used by TEDC, Bandung should be replicated by other institutions. Negotiations with foreign training institutions to follow a similar pattern should be undertaken.

74. Information on examples of Indonesian best practices and local expert contact persons should be systematically identified, collected, documented, and distributed to assist Indonesian institutions and individuals, especially those not directly receiving assistance, e.g., in the private sector, and external consultants. It is further recommended that consideration be given to making these examples available on a regularly maintained Internet site.

APPENDIXES

LOANS TO THE EDUCATION SECTOR IN INDONESIA

Loan Number and Title	Source	Approval Date	Appraisal				Actual				Change in Fellowships	
			Total Loan (in '000 $)	Fellowships (in '000 $)	Fellowships (% of loan)	Fellows (persons)	Total Loan (in '000 $)	Fellowships (in '000 $)	Fellowships (% of loan)	Fellows (persons)	$ allocation	persons
Completed Projects												
244 -INO Surabaya Institute of Technology	OCR	Dec-75	14,500	2,550	18	81	14,360	3,379	24	89	32%	10%
356 -INO Senior Technical Schools	ADF	Sep-78	24,000	135	1	-	23,699	130	1	17	-4%	
402 -INO University Hasanuddin	ADF	Jun-79	25,000	2,900	12	44	24,317	3,156	13	228	9%	418%
488 -INO Second Senior Technical Schools	OCR	Nov-80	26,000	544	2	37	25,724	565	2	40	4%	8%
525 -INO University of North Sumatra	OCR	Sep-81	26,000	5,980	23	254	25,731	4,164	16	403	-30%	59%
574 -INO Vocational Education	OCR	Jun-82	40,000	1,258	3	76	38,612	2,305	6	141	83%	86%
675 -INO Agricultural Education	OCR	Dec-83	68,000	9,564	14	759	67,001	1,018	2	1,499	-89%	97%
715 -INO Third Senior Technical Schools	OCR	Dec-84	83,000	2,671	3	234	82,046	3,588	4	1,842	34%	687%
737 -INO University of Sriwijaya	OCR	May-85	37,900	5,626	15	751	37,591	6,704	18	351	19%	-53%
Subtotal			**344,400**	**31,228**	**9**	**2,236**	**339,081**	**25,007**	**7**	**4,610**	**-20%**	**106%**
Ongoing Projects												
894/895 -INO Marine Science Education	OCR	Jul-88	73,350	9,279	13	221	66,255	8,701	13	211	N/C	N/C
969/970 -INO Second Vocational Education	OCR	Sep-89	100,000	14,529	15	4,246	101,233	21,615	21	169	N/C	N/C
1013 -INO Six Universities Development	OCR	Mar-90	114,000	17,174	15	401	106,000	11,297	11	121	N/C	N/C
1050 -INO Agricultural Technology Schools	OCR	Nov-90	85,000	16,334	19	3,553	85,000	3,966	5	39	N/C	N/C
1100 -INO Technical Education Development	OCR	Sep-91	100,000	6,633	7	4,570	100,000	2,518	3	N/A	N/C	N/C
1194 -INO Junior Secondary Education	OCR	Nov-92	105,000	44,033	42	46,984	105,000	3,331	3	N/A	N/C	N/C
1253 -INO Higher Education	OCR	Sep-93	140,000	42,520	30	583	140,000	1,018	1	92	N/C	N/C
1319 -INO Vocational and Technical Education	OCR	Sep-94	85,000	15,821	19	31,651	85,000	N/A	N/A	N/A	N/C	N/C
1359 -INO Private Junior Secondary Education	OCR	Jul-95	49,000	14,994	31	11,742	49,000	2,699	6	N/A	N/C	N/C
1360 -INO Senior Secondary Education	OCR	Jul-95	110,000	21,260	19	28,323	110,000	4,724	4	N/A	N/C	N/C
1432 -INO Engineering Education Development	OCR	Feb-96	102,000	33,642	33	3,052	102,000	913	1	N/A	N/C	N/C
1442 -INO Basic Education	OCR	Jun-96	85,000	37,225	44	26,754	85,000	178	0	N/A	N/C	N/C
Subtotal			**1,148,350**	**273,444**	**24**	**162,080**	**1,134,488**	**60,959**	**5**	**632**		
TOTAL			**1,492,750**	**304,672**	**20**	**164,316**	**1,473,569**	**85,967**	**6**	**5,242**		

ADF = Asian Development Fund; OCR = Ordinary Capital Resources; N/A = Not Available; N/C = Not calculated.

Note: Changes in fellowships of ongoing projects were not calculated because negative percentages would not represent actual underexpenditure, but rather that fellowships have not yet been fully implemented.

Sources: Appraisal Reports, Project Completion Reports, Loan Financial Information System.

PROJECTS INCLUDED IN THE SPECIAL EVALUATTION STUDY [a]
(Number of Fellowships)

1. By Professional Category [b]

Loan No	Loan Title	Teaching Staff		Non-Teaching Staff		EA/PIU Staff		Total	
		Appraisal	Actual	Appraisal	Actual	Appraisal	Actual	Appraisal	Actual
0675 -INO	Agricultural Education	633	1,324	109	170	17	5	759	1,499
0715 -INO	Third Senior Technical Schools	174	194	60	1,648			234	1,842
0737 -INO	University of Sriwijaya	695	276	56	75			751	351
0894/895 -INO	Marine Sciences Education	167	200	54	11			221	211
0969/970 -INO	Second Vocational Education	3,600	143	396	26	250		4,246	169
1013 -INO	Six Universities Development and Rehabilitation	248	116	153	5			401	121
1050 -INO	Agricultural Technology Schools	2,453	24	1,100	15			3,553	39
1253 -INO	Higher Education	583	92	-	-			583	92
	Total	**8,553**	**2,369**	**1,928**	**1,950**	**267**	**5**	**10,748**	**4,324**

2. Overseas and In-Country

Loan No	Loan Title	Overseas		In-Country		Total	
		Appraisal	Actual	Appraisal	Actual	Appraisal	Actual
0675 -INO	Agricultural Education	204	290	555	1,209	759	1,499
0715 -INO	Third Senior Technical Schools	174	194	60	1,648	234	1,842
0737 -INO	University of Sriwijaya	356	151	395	200	751	351
0894/895 -INO	Marine Sciences Education	131	189	90	22	221	211
0969/970 -INO	Second Vocational Education	80	169	4,166		4,246	169
1013 -INO	Six Universities Development and Rehab	174	110	227	11	401	121
1050 -INO	Agricultural Technology Schools	204	39	3,349		3,553	39
1253 -INO	Higher Education	271	44	312	48	583	92
	Total	**1,594**	**1,186**	**9,154**	**3,138**	**10,748**	**4,324**

[a] 1100-INO Technical Education Development and 1194-INO Junior Secondary Education were approved prior to 1253-INO Higher Education. However, since fellowship data was not available, these projects were excluded from the Special Evaluation Study.

[b] Professional categories differ in this table from those of the main text. This is so because, obviously, loans to universities would not have any fellows in the category "teachers" and vice versa.

Source: For appraisal figures: appraisal reports, and report and recommendations of the President.
For implementation figures: project completion reports, and data provided by BAPPENAS.

SITES VISITED BY THE EVALUATION TEAM

		Occupation Group						
		Managers		Teachers		University Staff		
Location	Number of Fellows	Institution	People	Institution	People	Institution	People	Provider of Training
Ambon	42	SMEA 2, SMKK	School Principals	SMEA 2, STM, SMKK	Teachers	UNPATTI	Academics	
Bandung	25					UNPAD	Academics	TEDC
Bogor	2					IPB	Academics, Librarians	
Jagarkarsa								Indonesian Graphic Arts School
Jakarta	9	MOEC	Senior Adminstrators					
Malang	6					UNIBRAW	Academics	VEDC, UNIBRAW
Manado	55	SMEA, STM, SMKK	School Principals	SMEA, STM, SMKK	Teachers	UNSRAT	Academics, Technical Support Staff	
Sawangen	69							VEDC
Semarang	69			SMEA 1, SMKK	Teachers	UNDIP	Academics	
Ujung Pandang	44			SMT Grafika	Senior Technical Teachers	UNHAS	Academics, Librarians	

Total Fellows	**321**
Total questionnaires	**193**
Percentage of fellows Met During Site Visits	**60%**

IPB	Agriculture Institute in Bogor
MOEC	Ministry of Education and Culture
SMEA	Senior Secondary Vocational School for Business and Commerce
SMKK	Senior Secondary Vocational School for Home Economics
STM	Senior Technical School
TEDC	Technical Education Development Center
UNDIP	University of Diponegoro
UNHAS	University of Hasanuddin
UNIBRAW	University of Brawijaya
UNPAD	University of Padjadjaran
UNPATTI	University of Pattimura
UNSRAT	University of Sam Ratulangi
VEDC	Vocational Education Development Center

CRITERIA FOR DEFINING ALTERNATIVE TRAINING STRATEGIES

1. Some possible criteria for distinguishing between training and education strategies for development projects are listed below. Any particular strategy will be a complex mix that which reflects all of the following criteria and possibly others. While some training strategies have characteristics of 'either—or' (e.g., either the program is accredited or it is not), others will have a more complex mix (e.g., some traditional components and some information technology-based components). Whatever the choice of strategy, it should be based on a careful training needs analysis that identifies requirements in terms of content, focus, learning methods, etc., of the individual fellow.

Criterion	Item	Item
Accreditation	formally accredited (e.g., degree, diploma, certificate)	not accredited
Duration of Study	short courses, seminars, and training workshops (e.g., less than three months).	long courses (e.g. up to approx. six years for a medical degree)
Focus	single focus (e.g., one day seminar on time management)	multifocus (e.g. one year graduate certificate on management)
Size of group	individual study (e.g., on-the-job training, learning by distance education)	group-based (e.g., training or education delivered to groups of students organized into classes)
Geographical Location	In-country	overseas
Physical Location	at an institution	elsewhere (home, fieldwork, on-the-job)
Media	traditional; mainly teacher centered "chalk-and-talk"	non-traditional; mainly student centered and materials or information technology based
Autonomy	curriculum determined by institution (e.g., diploma course)	high degree of student autonomy (e.g., PhD research student)
Continuity	continuous programs (e.g., two-weeks course on teaching skills)	Discontinuous or sandwich programs.
Integration	integrated (e.g. trainee undertakes needs analysis of work situation prior to training and implements agreed actions with support of supervisors on return)	not integrated; training stands alone; trainee is expected to apply new skills to work situation unaided.

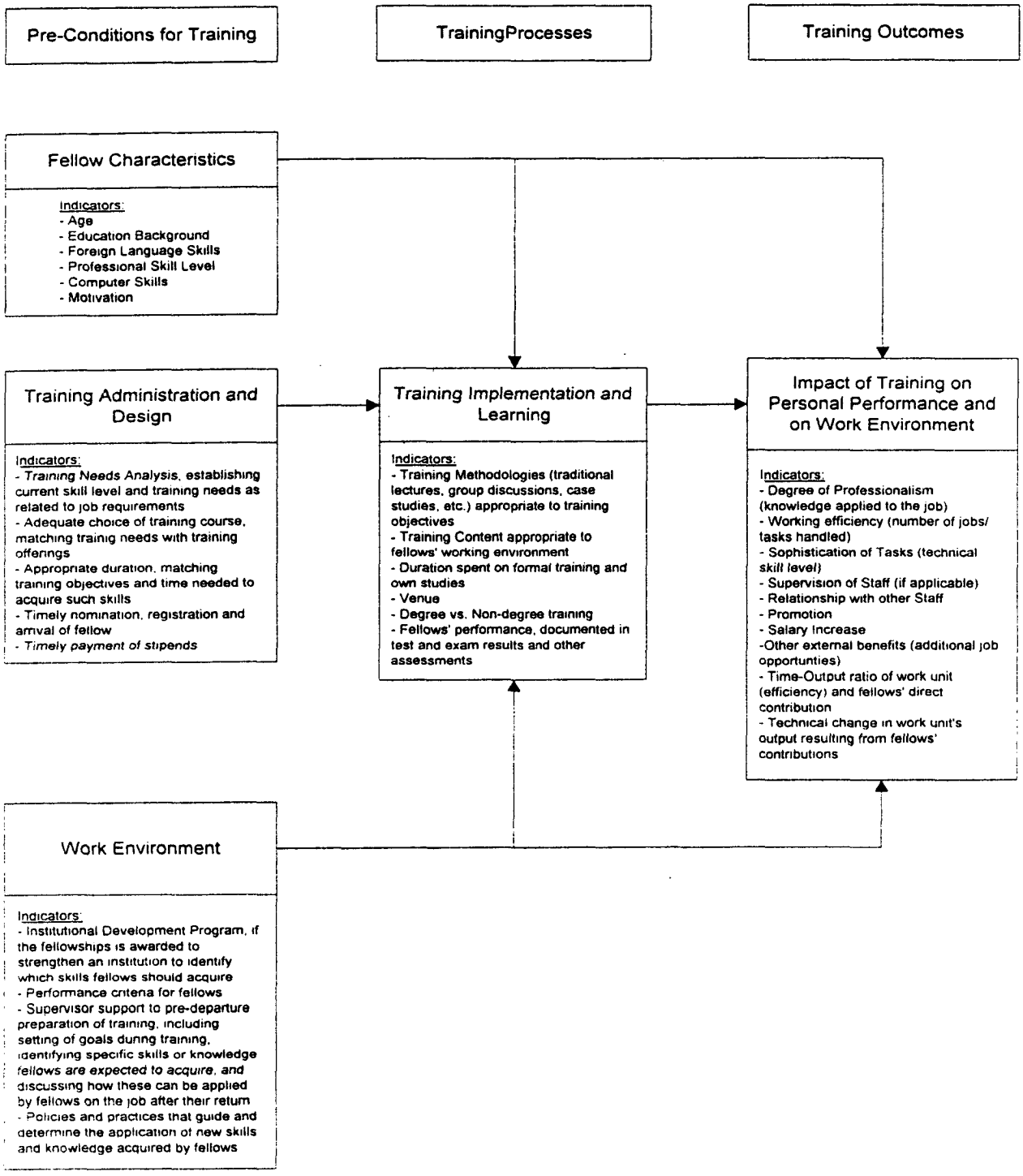
2. One development in training strategies that cannot be ignored is the globalization of education through the Internet. It is now possible for learners with access to the Internet to enroll in programs of study with public and private institutions such as the Open University (United Kingdom), Open Learning Australia, or Microsoft.

3. The potential of this rapidly developing area for Indonesia is considerable and can take advantage of a number of features of the present situation, including a remarkable expansion of Internet services in the past three years across the nation; the recent installation of modern telecommunications technologies in many provinces; a growing pool of expertise both in-country (for example, in the curriculum materials projects at the Faculty of Computer Science at Universitas Indonesia) and overseas among Indonesian higher degree students.

4. At the present time, it would be necessary to integrate this development with other strategies. For example, it is now understood that many Indonesians do not work well in the isolated distance mode of educational delivery, so group-based activities that rely in part on the provision of materials via the Internet may have to be devised to address this problem.

Appendix 5

Analytical Framework Indicators



ASIAN DEVELOPMENT BANK
(ADB)

Special Evaluation Study: Impact of Training in Education Projects in Indonesia 1997

This questionnaire seeks information about your experiences of ADB fellowship training and also your professional work. It also asks you some questions about yourself
The information you provide will be very important in helping the Bank to develop and improve its training programs in Indonesia.
Answer each question as directed. If you feel that you cannot answer a particular question, circle the 'Not Applicable' category or leave it blank.
Your responses are confidential and will be used only by Bank staff. We do not require you to write your name on this questionnaire.
However, it is very important that you answer all questions honestly.
Thank you very much for your kind assistance with this study.

SECTION 1

This section asks you for some data about yourself and the training program you attended.

1. Your gender *(tick one box)*
   - ☐ 1 Male
   - ☐ 2 Female

2. Year of Birth
   19 ... ...

3. What was the name of the training program you attended?
   (NOTE: answer all questions below with reference to this course)
   _____
   (write the name of the course or workshop or training activity)

4. Which of the following best describes the length of training you attended?
   (tick the box that most closely corresponds)
   - ☐ 1 From one month to less than six months
   - ☐ 2 From six months to less than one year
   - ☐ 3 One year
   - ☐ 4 Two years
   - ☐ 5 Three years
   - ☐ 6 More than three years

     (please specify).....

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5. What was the year of your attendance at the training program? 19 ... ...

6. Where was the training program located *(tick one box)*

- ☐ 1 In Indonesia
- ☐ 2 Overseas
- ☐ 3 Partly in Indonesia and partly overseas

7. Where do you work now?

_____

(write the name of your school, office, institution, etc))

8. What is your job?

_____

(for example, principal, librarian, finance officer)

9. Was competence in English or other foreign language a requirement for your training? *(tick one box)* ☐ 1 Yes ☐ 2 No

	Excellent						Very Poor
10. ONLY IF YOU ANSWERED YES TO QUESTION 9: How would you describe your level of competence in English or other foreign language when you commenced your training? *(circle one number)*	7	6	5	4	3	2	1

	Very highly motivated						Not motivated at all
11 At the time you began the training, how would you describe your motivation to attend the training? *(circle one number)*	7	6	5	4	3	2	1

	Very worthwhile						Not at all worthwhile
12 At the time you began the training, did you think it would be worthwhile for your job? *(circle one number)*	7	6	5	4	3	2	1

13 Did you have a choice about attending the training? *(tick one box)*

- ☐ 1 YES, I was free to attend or not to attend the training
- ☐ 2 NO, I was required to attend the training
- ☐ 3 Other: please explain on the back of this page

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SECTION 2
This section asks you for information and your opinions about your work and your work situation.

14. How did your supervisor support your participation in the training?

(tick one or more boxes)

- ☐ 1 Actively encouraged me to attend
- ☐ 2 Discussed with me the work I might do after completing the training
- ☐ 3 Helped me to set goals to be achieved during the training
- ☐ 4 Simply agreed that I should attend
- ☐ 5 No support was given by my supervisor/principal
- ☐ 6 Other kind of support (please describe below)

_____

_____

_____

15. After the training finished, in which of the following ways did your principal or supervisor support you to apply your new knowledge and skills to your work?

(tick one or more boxes)

- ☐ 1 Discussed the training program with me
- ☐ 2 Discussed with me the work I would do after completing the training
- ☐ 3 Helped me to set work or career goals
- ☐ 4 Invited me to make a presentation to others based on my training
- ☐ 5 Gave me feedback on the performance of my work
- ☐ 6 No support was given to me by my supervisor/principal after the training
- ☐ 7 Other kind of support (please describe)

_____

_____

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16. Describe your career progress after you completed your training

(tick one or more boxes)

- ☐ 1 There has been little or no change: I now have similar responsibilities as before the training
- ☐ 2 I have been promoted to a more senior position
- ☐ 3 I have been moved to a different position requiring similar skills, but not promoted
- ☐ 4 I have been moved to different position requiring different skills, but not promoted
- ☐ 5 Other kind of career change (please describe below)

_____

_____

_____

In each of the following questions, please tell us how you think your training changed your professional activity.

17. My working efficiency *(tick one box)* ☐ 1 Better ☐ 2 Same ☐ 3 Worse ☐ 4 Not applicable

18. My relationships with colleagues *(tick one box)* ☐ 1 Better ☐ 2 Same ☐ 3 Worse ☐ 4 Not applicable

19. My use of technical skills *(tick one box)* ☐ 1 Better ☐ 2 Same ☐ 3 Worse ☐ 4 Not applicable

20. My use of English/foreign language *(tick one box)* ☐ 1 Better ☐ 2 Same ☐ 3 Worse ☐ 4 Not applicable

21. My skill in supervising staff *(tick one box)* ☐ 1 Better ☐ 2 Same ☐ 3 Worse ☐ 4 Not applicable

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22. Please describe any other important changes to your professional activities caused by the training.

_____

_____

_____

23. Since completing your training have you been able to keep up to date with developments in your specialisation? *(tick one box)*

☐ 1 Yes ☐ 2 Only a little ☐ 3 No

24. In your opinion, how has the training influenced your income?

☐ 1 My income has increased ☐ 2 My income has remained about the same ☐ 3 My income has decreased

SECTION 3
This section asks questions about the training course/program you attended.

		Excellent						Very Poor
25	All things considered, how would you describe the quality of the training program you attended? *(circle one number)*	7	6	5	4	3	2	1

26 During the training was any attempt made to teach you how to apply your new skills and knowledge to your work in Indonesia? *(tick one box)* ☐ 1 Yes ☐ 2 No

If you answered YES, please describe what was done to help you apply your new skills and knowledge to your work.

_____

_____

_____

28 Please describe the BEST features of the training you attended *(if you need more space, write on the back of this page)*

_____

_____

_____

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29 Please describe the ways in which you think your training program could be IMPROVED .*(if you need more space, write on the back of this page)*

_____

_____

_____

_____

If you would like to make additional comments about this study on the Impact of Training in Education Projects in Indonesia, please do so on the back of this page.

Thank you for answering this questionnaire

_____

IN-COUNTRY PROVIDERS OF TRAINING TO FELLOWS FROM SENIOR SECONDARY SCHOOLS

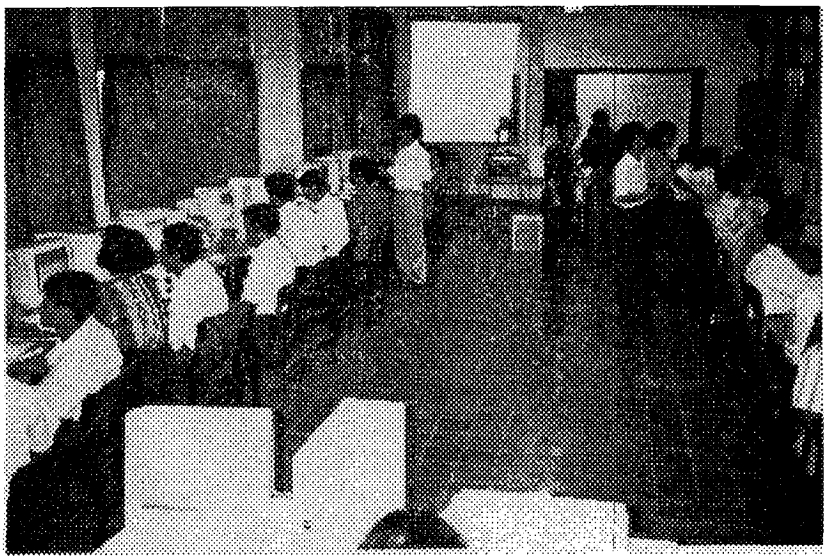
A. Case Study 1: Indonesian Graphic Arts Center

1. The first of these in-country providers was Pusat Grafika Indonesia (Indonesian Graphic Arts Center) at Jargakarsa, south of Jakarta. The Center provides training for teachers in graphic arts specialization. Students come from other technical disciplines and are retrained.

2. Two courses have been tailored to meet the needs of Bank Project 1100[1]: a basic-level eight-month course and an advanced five-month course. The courses include integrated experience in the Center, in industry, and in schools. Courses are discussed with industry experts in an attempt to ensure that the required quality standards are achieved. In the case of this center it was reported that, in fact, the standards are exceeded, and the quality of printed books produced as evidence seemed to confirm this claim. Furthermore, the very high standard of building and equipment provision and maintenance, and the busy and enthusiastic character of all staff met, is further evidence.

B. Case Study 2: Vocational Education Development Center, Malang

3. Vocation Education Development Center (VEDC) (Malang) is another in-country provider. One program observed is the Management Information System Course for administrative staff from Agricultural Technical Schools under Project 1050[2]. Photographs 1 and 2 show the teaching program in progress for 30 school staff on 7 August 1997. Key elements of these photographs include the stock of recent computers (running Windows) and numbers of teachers on hand to supervise and assist the trainees.



Photograph 1: Computer Training, VEDC, Malang

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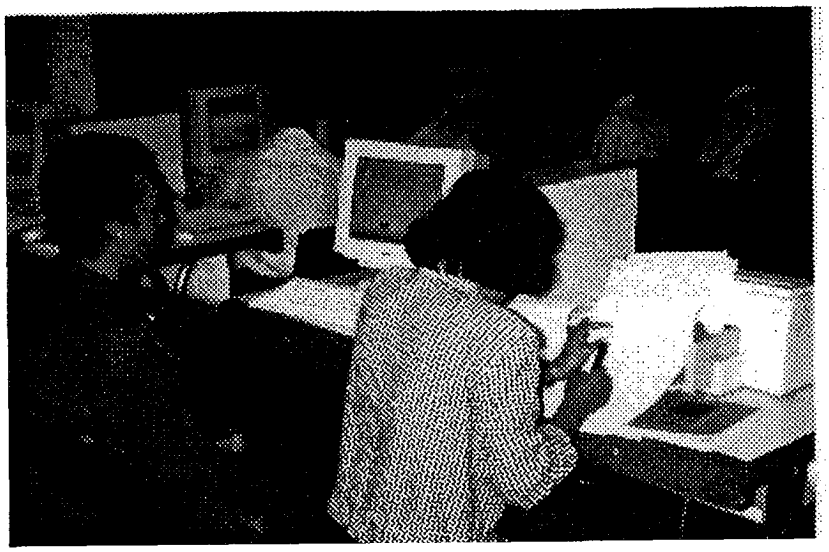
1 Loan No. 1100-INO: *Technical Education Development*, for $100 million, approved on 26 September 1991.

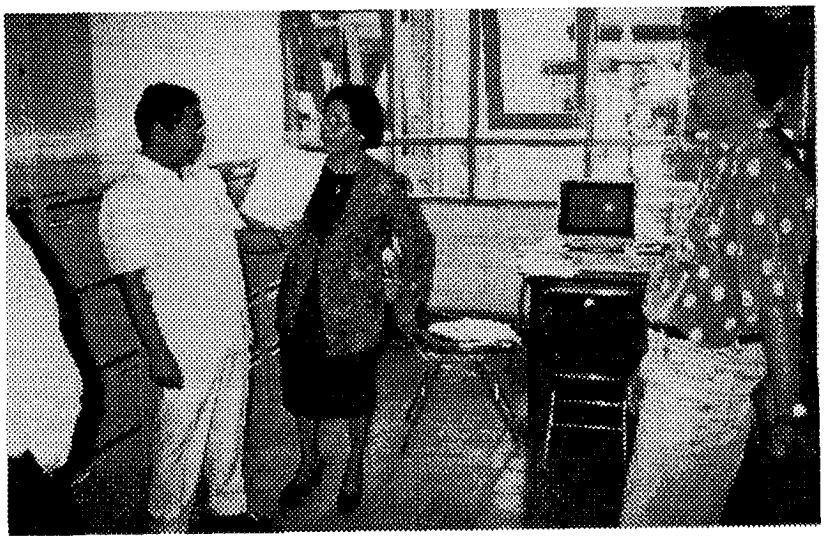
2 Loan No. 1050-INO: Agricultural Technology Schools, for $85 million, approved on 13 November 1990.



Photograph 2: Computer Training, VEDC, Malang

4. This program has been designed in consultation with staff at DTVE who maintain a full coordination and quality control function, including on-site visits to VEDC. The focus of the course is on how to use computers in the day-to-day activities of schools and extends over a period of several months, including one month at VEDC followed by implementation in schools and supported some monitoring and follow-up (limited by budget). The program is supported by a computer laboratory with new machines running Windows software (3.1.1) considered suitable for the school situation. Students and their teachers were observed to be fully engaged in the learning tasks. The project head explained that powerful forces acting to ensure high quality standards in course delivery were the VEDC's need to provide quality training to industry and its desire to be a site for future development projects.

5. As evidence of a quality control mechanism, Photograph 3 illustrates a computer managed system for controlling a substantial collection of lesson plans that are used in all departments of the VEDC.



Photograph 3: Lesson Plan Management, VEDC, Malang

C. Case Study 3: Technical Education Development Center, Bandung

6. The Technical Education Development Center (TEDC) exhibits the impact of sustained educational inputs over an extended period (mid-1980s to the present). The positive manifestations of educational development and the impact of training include

(i) quality graduates for schools and industry;

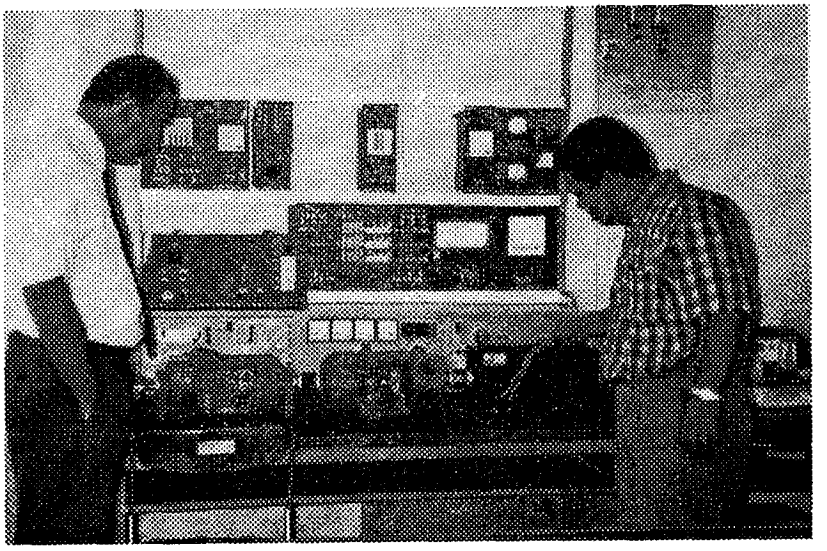
(ii) quality training facilities including properly equipped classrooms, computers, workshops, locally produced and imported training aids, professional teaching and support staff (Photographs 4 and 5 show local and imported teaching aids, respectively);

(iii) well-developed and integrated administrative structures for implementing and controlling the quality of education; and

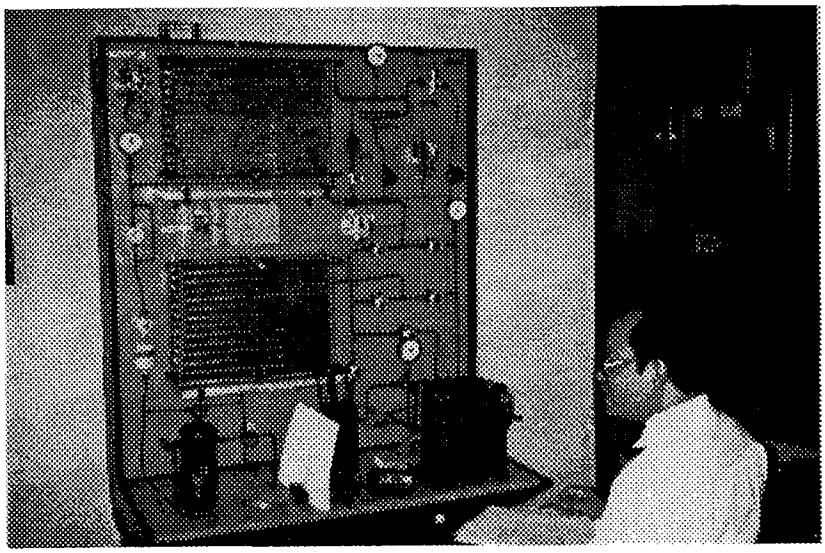
(iv) a small but functional professional library.

7. One program provided to the sector by TEDC is in the maintenance and repair of computers. This program is tailored to meet specific needs, for example in Bank loan projects; the specific needs of schools are examined, and links with industry help ensure currency and relevance of the curriculum. Indeed, the link is so positive that services provided to industry are yielding sufficient income to increase as well as maintain the stock of computers and teaching equipment. Thus, the latest Pentium machines running Windows 95 were seen to be in use. Training is provided for technical teachers, administrative staff, and to general subject teachers as part of a program to develop computer literacy among teachers.

8. The quality and good condition of imported and locally produced training aids is illustrated in Photographs 4 and 5.



Photograph 4: Imported Training Aid, TEDC, Bandung



Photograph 5: Locally Produced Training Aid, TEDC, Bandung

9. The curriculum consists of three major but standard elements: (i) a general element (Pancasila, English, etc.); (ii) the technical element (computing); and (iii) the educational element (methods, curriculum).

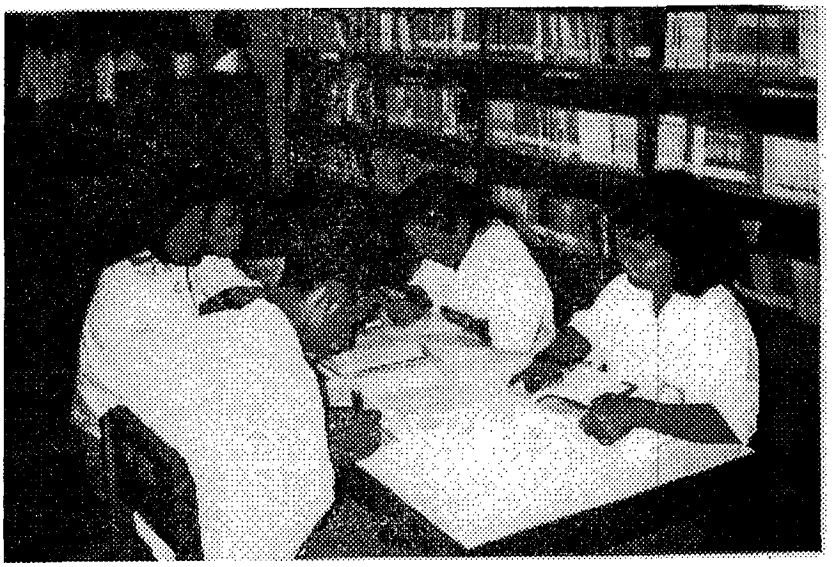
10. The overall quality of programs such as this one is maintained by an elaborate but bureaucratic structure. The head of department is responsible for quality, but separate structures supervise overall implementation, design, and quality.

D. Case Study 4: VEDC, Sawangan

11. VEDC (Sawangan) provided training in librarianship for secondary school teachers. Programs vary in duration from one month to three months according to needs identified either by the Bank or by studying the needs in schools. These needs are often considerable: material resources in schools are usually very limited, and the knowledge and experience of the trainees in the use of libraries is usually very poor before training begins.

12. Another challenge is that trainees must acquire some computing skills early in the course. VEDC provides this support and has well-equipped computer laboratories to support this training. As many of the teachers of computing have themselves received Bank support in the past, this is an example of an important ongoing training impact.

13. Library training facilities at VEDC are reasonable and relevant to the work context in which trainees find themselves. In addition to the computing facilities, there is a well-maintained and comprehensive collection of books relevant to the institutions' purposes and beyond (Photograph 6), a training room and access to field work locations, including the excellent library located at the Jakarta International School. Although much of the library equipment is quite old, and has been relocated from the former site of VEDC at Ragunan, it is still fully functional. Similarly, audio-visual equipment located elsewhere and purchased more than ten years ago is also functioning well. This suggests that technical maintenance and management training have had beneficial and long-term economic outcomes.



Photograph 6: Library, VEDC, Sawangen

TRAINING COUTCOMES BY OCCUPATIONAL GROUP

Professional Skills	working efficiency				use of technical skills				use of English/foreign language			
Occupational Group	same	better	other [a]	% better [b]	same	better	other [a]	% better [b]	same	better	other [a]	% better [b]
Managers	2	11	2	73	2	11	2	73	3	12	0	80.00
Teachers	7	102	5	89	11	99	4	87	44	52	18	45.61
University Staff	7	52	5	81	9	50	5	78	8	48	8	75.00
Total Responses	16	165	12	85	22	160	11	83	55	112	26	58.03
Total Number of Questionnaires		193										

Interpersonal Skills	relationships with colleagues				skill in supervising staff			
Occupational Group	same	better	other[1]	% better[2]	same	better	other[1]	% better[2]
Managers	5	8	2	53	3	10	2	67
Teachers	19	94	1	82	21	53	40	46
University Staff	24	36	4	56	15	30	19	47
Total Responses	48	138	7	72	39	93	61	48
Total Number of Questionnaires		193						

[a] "Other" includes ratings less than "same" or "better", and "not applicable".

[b] Percentage of "better" over total fellows in this occupational group (15 managers, 114 teachers, 64 university staff).

Source: Special Evaluation Study Questionnaire.

CORRELATION BETWEEN PRECONDITIONS OF TRAINING AND TRAINING OUTCOMES

	Training Outcomes																			
	Professional Skills												Interpersonal Skills							
	working efficiency				use of technical skills				use of English/foreign language				relationships with colleagues				skill in supervising staff			
	same	better	other[a]	% better[b]	same	better	other[a]	% better[b]	same	better	other[a]	% better[b]	same	better	other[a]	% better[b]	same	better	other[a]	% better[b]
Preconditions to Training																				
Foreign Language Competence																				
low	2	15	0	88	3	14	0	82	2	14	1	82	4	13	0	76	4	9	4	53
medium	4	23	2	79	7	20	2	69	9	18	2	62	8	20	1	69	9	15	5	52
high	5	61	2	90	5	60	3	88	6	61	1	90	23	44	1	65	17	27	24	40
Total Responses	11	99	4	87	15	94	5	82	17	93	4	82	35	77	2	68	30	51	33	45
No response.		79				79				79				79			79			
Total Number of Questionnaires		193																		
Age																				
below 35 years	5	40	2	85	5	40	2	85	12	28	7	60	10	35	2	74	6	22	19	47
between 35 and 45 years	9	94	8	85	13	92	6	83	30	67	14	60	35	73	3	66	28	47	36	42
above 45 years	2	31	2	89	4	28	3	80	13	17	5	49	3	30	2	86	5	24	6	69
Total Responses	16	165	12	85	22	160	11	83	55	112	26	58	48	138	7	72	39	93	61	48
Total Number of Questionnaires		193																		
Motivation																				
low	0	3	0	100	0	3	0	100	2	1	0	33	0	3	0	100	2	1	0	33
medium	3	9	2	64	3	10	1	71	3	10	1	71	4	9	1	64	4	6	4	43
high	13	153	10	87	19	147	10	84	50	101	25	57	44	126	6	72	33	86	57	49
Total Responses	16	165	12	85	22	160	11	83	55	112	26	58	48	138	7	72	39	93	61	48
Total Number of Questionnaires		193																		
Supervisor Support[c]																				
actively encouraged	7	136	11	88	14	130	10	84	41	92	21	60	33	114	7	74	31	76	47	49
discussed training objectives	0	37	2	95	3	35	7	90	18	18	39	46	7	31	15	79	6	20	25	51
helped set goals	1	32	2	91	2	32	1	91	8	23	4	66	5	29	1	83	7	19	9	54
simply endorsed attendance	8	15	0	65	9	13	1	57	8	14	1	61	10	13	0	57	5	11	7	48
other kind of support	0	3	0	100	1	2	0	67	0	3	0	100	2	1	0	33	1	2	0	67
Total Responses	16	223	15	88	29	212	19	82	75	150	65	52	57	188	23	70	50	128	88	48
Total Number of Questionnaires		193																		

[a] "Other" includes ratings less than "same" or "better", and "not applicable".

[b] Percentage of better over total fellows in the particular category (language competence, age, motivation level, supervisory support).

[c] More than one response was possible.

Source: Special Evaluation Study Questionnaire.

CORRELATION BETWEEN TRAINING PROCESSES AND TRAINING OUTCOMES

	Training Outcomes																			
	Professional Skills												Interpersonal Skills							
	working efficiency				use of technical skills				use of English/foreign language				relationships with colleagues				skill in supervising staff			
	same	better	other [a]	% better [b]	same	better	other [a]	% better [b]	same	better	other [a]	% better [b]	same	better	other [a]	% better [b]	same	better	other [a]	% better [b]
Training Processes																				
Length of Training																				
1-6 months	7	99	5	89.19	11	94	6	84.68	44	47	20	42.34	22	86	3	77.48	23	59	29	53.15
6 months - 1 year	1	15	1	88.24	2	14	1	82.35	6	10	1	58.82	3	14	0	82.35	2	6	9	35.29
1 year	1	6	0	85.71	1	6	0	85.71	0	7	0	100.00	3	4	0	57.14	2	2	3	28.57
2 years	4	20	1	80.00	3	22	0	88.00	1	24	0	96.00	6	19	0	76.00	3	13	9	52.00
3 years	2	15	4	71.43	2	15	4	71.43	2	15	4	71.43	9	8	4	38.10	6	7	8	33.33
more than 3 years	0	7	1	87.50	3	5	0	62.50	1	6	1	75.00	3	5	0	62.50	2	4	2	50.00
Total Responses	15	162	12	85.71	22	156	11	82.54	54	109	26	57.67	46	136	7	71.96	38	91	60	48.15
No response		4				4				4				4				4		
Total Number of Questionnaires		193																		
Degree versus Nondegree [c]																				
Degree	6	42	6	77.78	8	42	4	77.78	4	45	5	83.33	18	32	4	59.26	11	24	19	44.44
Non-Degree	9	120	6	88.89	14	114	7	84.44	50	64	21	47.41	28	104	3	77.04	27	67	41	49.63
Total Responses	15	162	12	85.71	22	156	11	82.54	54	109	26	57.67	46	136	7	71.96	38	91	60	48.15
No response.		4				4				4			4				4			
Total Degree Fellows		54																		
Total Non-Degree Fellows		135																		
Total Number of Questionnaires		193																		
Location																				
In-country	8	86	8	84.31	11	84	7	82.35	46	31	25	30.39	18	79	5	77.45	16	52	34	50.98
Overseas	7	63	4	85.14	10	60	4	81.08	6	67	1	90.54	28	44	2	59.46	20	32	22	43.24
In-country and Overseas combined	1	16	0	94.12	1	16	0	94.12	3	14	0	82.35	2	15	0	88.24	3	9	5	52.94
Total Responses	16	165	12	85.49	22	160	11	82.90	55	112	26	58.03	48	138	7	71.50	39	93	61	48.19
Total In-country Fellows		102																		
Total Overseas Fellows		74																		
Total In-Country/Overseas Fellows		17																		
Total Number of Questionnaires		193																		

[a] "Other" includes ratings less than "same" or "better", and "not applicable".

[b] Percentage of "better" over total fellows in the particular category (e.g., length of training, degree, location).

[c] It is assumed that courses of two years and more were degree courses. Only 189 respondents completed the question on the duration of their training.

Source Special Evaluation Study Questionnaire.