

HRÓBJARTUR ÁRNASON

United Nations University
Fisheries Training Programme
An Evaluation carried out in 2003-4

The Research Centre, Iceland University of Education
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An Evaluation of the United Nations University Fisheries Training Programme

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United Nations University

Fisheries Training Programme

An Evaluation carried out in 2003-4

0 Executive Summary

During 2003-2004 an external evaluation of the UNU Fisheries Training Programme was carried out at the request of the Board of the programme. This is a summary of the findings.

The evaluation focuses on providing relevant information for decision-makers as well as being a learning process for the managers and staff at the FTP.

The goals of the evaluation as laid out in the Terms of Reference are to:

- determine whether the programme meets its goals
- check whether the teaching methods are as good as they could be
- find out whether there are any blind spots where the programme needs to be changed
- find out what impact the program has when the fellows return home

The evaluation was carried out during the sixth annual course of the programme, from August 2003 to February 2004, with some follow-up activities. Documented findings and information on experiences of previous fellows from interviews were also included as data. The evaluation was also planned and carried out as a learning process for the directors during which they could review their practice and learn new views and methods in accordance with established theory and practice of adult and higher education.

Reaction of fellows

It is quite evident from our findings that participants are generally very happy with their stay in Iceland. They find the service they receive in most cases superior and most importantly; most fellows state what they have learned is useful for their jobs when they return home.

Organisation

Analysis of the organisation shows that practical aspects of the course are in very good shape. From the first day the fellows experience sound organisation and find that they are led through the beginning phases of the course in security and with competence. During the evaluation process, some aspects of helping the group of fellows to become a functioning learning community were discussed, and the directors restructured some activities in concert with established practice in adult education. The organisation of learning modules has been under constant development, the Introductory Course getting shorter each year, increasing the emphasis on the Specialization Course and the final project. We suggested adding more elements of group work in order to give the fellows

more opportunities to reflect on their learning and to forge closer relations with their fellows.

Working conditions and access to information is exemplary. Access to specialists is also very good due to the fact that they work inside the MRI and IFL. However, some fellows might need more support to overcome social barriers and to approach the Icelandic specialists.

Teaching and learning

The learning process at the UNU-FTP is mainly structured with lectures, site visits and individual projects, culminating with a final project supervised by specialists in the field. Our analysis of student reactions, interviews with the fellows, the lecturers and the directors indicate that it would be of value to decrease the emphasis on delivery of information to the benefit of group activities and self study activities. This recommendation is in concert with UNU stipulations that the UNU programmes should increase the fellows' capacity to continue learning on their own after returning to their home countries and to cooperate with fellow specialists around the world. The fellows' reaction to the lectures is usually very positive but it is quite evident that there is a need to include more elements of discussion and reflection. In cases where the cooperation between lecturers and the fellows does not work out, the directors have become very perceptive to indications from the fellows when individual lecturers do not manage to connect with them in an educating way. Furthermore our interviews with some of the lecturers indicate that *they* too have benefited from their participation in the programme. Many have built up specialised knowledge and skills in educating this kind of student group while others have used the opportunity to consider their line of study from fresh viewpoints.

Impact

It is difficult to estimate from a distance the impact the programme has on the partner organisations. To be able to give a reasonable judgement on the programmes' impact in participating countries and institutions one would need in-depth interviews with players *in situ*, both before the start of the programme and after some years of operation. However reactions from partner countries reported in the managers' travel reports and telephone interviews with some participating superiors, together with answers in our online survey, indicate a very positive impact on participating institutions. The fellows' superiors we talked to were very happy with the impact the programme had on their subordinates' work. A considerable number of fellows were consequently promoted, or changed their situation to tackle greater responsibilities, others are found to be better at their jobs. More than half the fellows who answered our online survey indicated that they continued either formal or informal studies. Other sources indicate that at least fifteen of sixty two former fellows have gone on to further degree studies in their fields. The most evident and reliable indicator of the programmes' impact is perhaps the partner institutes' interest in continuing cooperation. This is evident in all the countries where the programme has been offered for several years. Another similar indicator is the growing interest the managers observe from other countries.

Some aspects stipulated by the UNU Charter, however, need to be addressed. UNU goals of increasing cooperation between specialists in similar situations or neighbouring countries have been addressed by inviting candidates from countries which lie adjacent to each other to the programme. This could however be furthered by incorporating methods used in online communities into the programme in order to teach the fellows to use such learning tools, and to build up online support for alumni. Local conferences sponsored by the FTP might also be considered. Support for self-study should also be addressed specifically. Strategies for developing the fellows' study skills could be tackled more consistently, for example with the introduction of student portfolios which would probably influence the way some lecturers teach or have an impact on the way the staff supports the fellows during the programme.

The FTP as Development Assistance

Development assistance in this form has a logic of its own. Some argue that money spent in this way does not benefit a developing country in the same way it would if it were spent in the receiving country. One can however counter that the education that a programme like this offers is far superior to that which could be offered in the receiving countries. Many of our informants, both fellows and lecturers, found that the strength of the UNU-FTP was its international character. It is definitely one of the aims of the UNU to support cooperation and understanding. A programme such as this can definitely be seen as a good method to further such aims. The FTP gathers professionals from a wide range of countries together, widening their perspective and giving them a global perspective. It can also be argued that no other place has the capacity to offer such a wide range of topnotch scientists and professionals together with the most modern facilities to enable a student to experience so many facets of the field in such a short time. Courses could be exported to a developing country, but that would not offer the same educational benefits as studying theory and practice in the midst of a thriving and vigorous sector.

This evaluation finds the UNU-FTP to be a very good programme. Our findings are that the programme reaches most of its goals to an acceptable measure. The fellows return to their homes with useful knowledge, a broader understanding of their field of work and enthusiasm to continue. Both the fact that they are able to deepen their knowledge in a narrow field closely associated with their own interests and that they are immersed into a work morality, probably particular to Iceland, seems to contribute to a greater efficiency and enthusiasm at work after their return.

There were some aspects, both in the area of organisation and teaching where ideals, methods and common practice in the field of adult education would improve parts of the programme. These concern especially the beginning of the programme, group work, individual work assignments and incorporation of web-based methods during the programme. These have been discussed with the managers and presented to the board, and many are currently being incorporated into the programme with a new cohort which arrived at the beginning of September 2004.

1 Introduction

In 1998 the Fisheries Training Programme (FTP) of the United Nations University (UNU) was established in Reykjavik, Iceland. Since its establishment 84 professionals from 20 countries have participated in the programme, which generally has received very favourable feedback both from fellows and observers. Now, after six years, the board and staff of the programme find it necessary to stand back and evaluate the programme.

1.1 Goals

The evaluation focuses on providing relevant information for decision-makers in Iceland, as well as at the UNU headquarters and other UNU Programmes. It is also intended as a learning process for managers and staff at the FTP.

The goals of the evaluation (as laid out in the Terms of Reference) are to:

- determine whether the programme meets its goals
- check whether the teaching methods are as good as they could be
- find out whether there are any blind spots where the programme needs to be changed
- learn what impact the program has when the fellows return home

1.2 Methodology

This evaluation was performed by one evaluator with support from specialists at the Research Institute of the Iceland University of Education. The terms of reference were received in September 2003. Information collected is both qualitative and quantitative. The methodology of the evaluation includes:

Analysis of documents related to the teaching, training and supervision of the fellows. Mainly those produced during the project but also other relevant older materials.

Analysis of annual course evaluations.

Interviews with key informants, staff, present fellows and directors of cooperating institutions in developing countries.

Analysis of online surveys sent to all past fellows and directors of cooperating institutions in developing countries. (Of sixty two former fellows only twenty one responded to the survey, and one of the directors responded)

Analysis of telephone interviews with some directors of partner organisations in receiving countries.

Observation of the fellows' presentations of their final projects.

Collection and analysis of other information pertinent to the training offered by the FTP.

After collecting material on the programme, pertinent to the evaluation, the managers were interviewed on several occasions. Eight fellows were interviewed individually and

another nine in two focus groups and three directors were interviewed over the telephone. Evaluations from the present cohort as well as earlier cohorts were analyzed, and these compared to results from the interviews with fellows, with some of their superiors and the programme managers. Former fellows and their superiors were asked to participate in an online survey. Only 21 former fellows responded and one superior. Thus some superiors were interviewed via telephone. During the writing of the draft the evaluator met regularly with the managers to discuss his findings and make suggestions about the use of some didactical measures which might be useful in the programme. These suggestions were supported with written material explaining different methods commonly used in adult and higher education. Suggestions from the managers were also discussed and some were added to the final edition.

The UNU-FTP managers provided most of the documents used for the evaluation; some were obtained from the programme web, and others from the UNU web site.

1.3 Issues covered in the evaluation

The evaluation addresses issues of relevance, efficiency, effectiveness, impact and sustainability.

- Relevance:** Are the objectives worthwhile? Does the design of the project support the objectives?
- Efficiency:** Has there been an efficient use of resources in the project? What problems have arisen?
- Effectiveness:** Has the project achieved its objectives? What has facilitated or prevented the effectiveness?
- Impact** What are the positive and negative effects of the project? What are their causes?
- Sustainability:** What benefits of the project continue into the organisations the fellows return to after the programme?

Attention was mainly given to matters concerning teaching, training and supervision of the fellows. The design of the program, rules, methods of teaching and training were considered and compared with accepted practices and mainstream theories within the field of adult and continuing education.

The evaluation was sensitive to unintended outcomes of the project.

2 Description of the Programme

In the late 1970s, when the UNU [Geothermal Training Programme](#) was initiated, the idea of establishing a Fisheries Training Programme, as part of the UNU network, was also discussed. However, officials from Iceland and the UNU did not revisit these ideas until 1994. As a result, they ordered a pre-feasibility study in 1995, and consequently a

feasibility study in 1996.¹ In June 1997 the Marine Research Institute, the United Nations University and the Government of Iceland signed a formal agreement to start a UNU Fisheries Training Programme at the MRI. The first six fellows arrived in August 1998.

The main objectives of the programme as stated in the feasibility report are:

- To help interested countries achieve their fisheries development goals by upgrading the professional capacity of selected candidates in key fisheries subjects, and
- To enable the trainees to attain a higher professional standard for the respective posts they may hold, or aim for in their countries.²

These objectives aim at capacity building on the national level and the individual level. To reach these objectives the FTP has worked towards cooperation with individual institutions by inviting them to send suitable candidates from among their staff to participate in the six month programme in Iceland. The execution has thus mainly been on the individual and institutional level.

The FTP is built up on formal partnerships with public (and private) institutions in the receiving countries on the one hand and local training and research institutes in Iceland on the other hand. Each partner provides expert teachers and supervisors and is represented on the board. The programme is managed by the MRI and the members of the programme staff are employees of the institute. Its four formal partners in Iceland are:

- [The Marine Research Institute](#) (MRI)
- [The Icelandic Fisheries Laboratories](#) (IFL)
- [The University of Iceland](#) (UI)
- [The University of Akureyri](#) (UA)

The MRI and IFL house the programme, give the fellows access to workstations, their library and other necessary resources, provide lecturers and supervisors as well as giving access to their laboratories for necessary hands-on experiences. The University of Iceland and The University of Akureyri cooperate by supplying lecturers and supervisors and giving the fellows access to the same resources as their own students. UA also supports the fellows who stay in Akureyri during the Specialization Course.

Since its beginnings the FTP has established informal but very fruitful partnerships with schools, institutions and private companies around the country, whose expertise and facilities complement those of the formal partners.

The first cohort arrived in August 1998. This was a group of six professionals in fisheries from Africa. This started a five-year development period for the FTP.

2.1 Management structure and staffing

The programme is housed in the Marine Research Institute and receives necessary organisational backup. On a daily basis it is run by three staff members, a programme director and a deputy director who both work full time for the programme and a part time

¹ UNU Fisheries Training Programme: Feasibility Report (1996)

² Feasibility Report: 29

programme officer. The directors are in charge of daily business, from planning the programme, supervising the development of courses and hiring expert teachers and supervisors to coach fellows with their final project. They teach some parts of the programme and monitor the progress of projects on a regular basis. The officer is responsible for various administrative tasks among other duties. The directors regularly travel abroad to visit participating countries and institutions to interview and invite prospective fellows. A board with representatives from the partner institutes sets guidelines and is formally responsible for the programme.

2.2 Organisation and underlying themes

The programme takes place at the MRI in a building that also houses IFL, the Fisheries Directorate and Ministry of Fisheries. The fellows live in apartments around the city and are expected to work at the MRI during office hours and participate in the institutes' life like other employees. Here the fellows have their own workstations and access to the internet, a library, a canteen and lecture rooms. The course is divided into two distinct parts, the Introductory Course where the aim is to give the fellows a general overview of international fisheries and its major disciplines and the Specialization Course where the fellows pursue one field of specialization culminating with the presentation of their final project. During the Introductory Course the fellows become acquainted with different aspects and disciplines of fisheries, they visit many companies and institutions in the fishing industry in and around Reykjavik as well as in the northern town Akureyri, where they spend ten days. During the Introductory Course the fellows make presentations on fisheries in their home countries. They also formulate their personal goals for the programme, in cooperation with the directors. The Specialization Course starts with a five week structured course, where the fellows attend lectures, workshops and site visits led by leading experts in the field. After completing the formal course, they embark on an individual project supervised by a specialist in the field the fellow has chosen. The fellows have 3 ½ months to finish this Final Project. After handing in the project, they present it in an open lecture attended by other fellows, supervisors and other interested parties.

2.3 Forging Links with Partners

It can easily be argued that rapid development and modernisation of the fishing industry in Iceland has helped it develop from being the poorest country in Europe at the beginning of the 20th century to being one of the most affluent with an annual per capita income of approximately US\$ 25.000 at the turn of the century. Icelandic fisheries specialists have been sought after internationally to participate in various projects over the last few decades. It can therefore be seen as a natural continuation that Iceland is interested in offering development assistance in the form of training within this field.

A major concern for the board and directors is forging relationships with partner countries. The objective of the programme is to support institutions, mostly in developing countries, with an emphasis on Africa. To do this, the directors have visited possible partner institutions in 20 countries where they have established contacts with leaders in fisheries, and interviewed possible candidates. An interesting question that has

been prominent in their discussion is how to choose a country for cooperation. Which countries fit best the programme goals? As the programme becomes better known the office receives inquiries from an increasing number of institutions and national representatives.

Important criteria in the discussion have been:

- UNU’s emphasis on Africa.
- Building up a reasonably strong group of professionals in partner countries who work both in private and official organisations.
- Creating a pool of knowledge in a certain region. Both UNU and the FTP board have found it important to focus attention on distinct localities, rather than spreading their resources too thin. For example, the programme has emphasised inviting candidates from the countries adjacent to and fishing in Lake Victoria, thus building up a group of professionals in the countries which share the resources in the lake. It is hoped that these professionals, because of the common experience of having studied in Iceland, and a common knowledge base, can communicate with greater ease and together build up a shared vision for developing the use of the common resource.
- Internationalisation of the local fisheries industry.

Institutions in countries not classified as developing countries, such as Russia and Estonia, have in recent years showed increased interest in the programme. It is thus of urgent importance for the FTP to continue to discuss and decide how to deal with an increased demand for their services, and how to welcome new partners into the group and at the same time continue to build up expertise in the countries which have already started to accumulate a group of professionals educated at the FTP.

From the beginning of the programme 84 fellows from 20 countries have participated in the UNU-FTP. The following graph shows the distribution between countries and continents for each year.

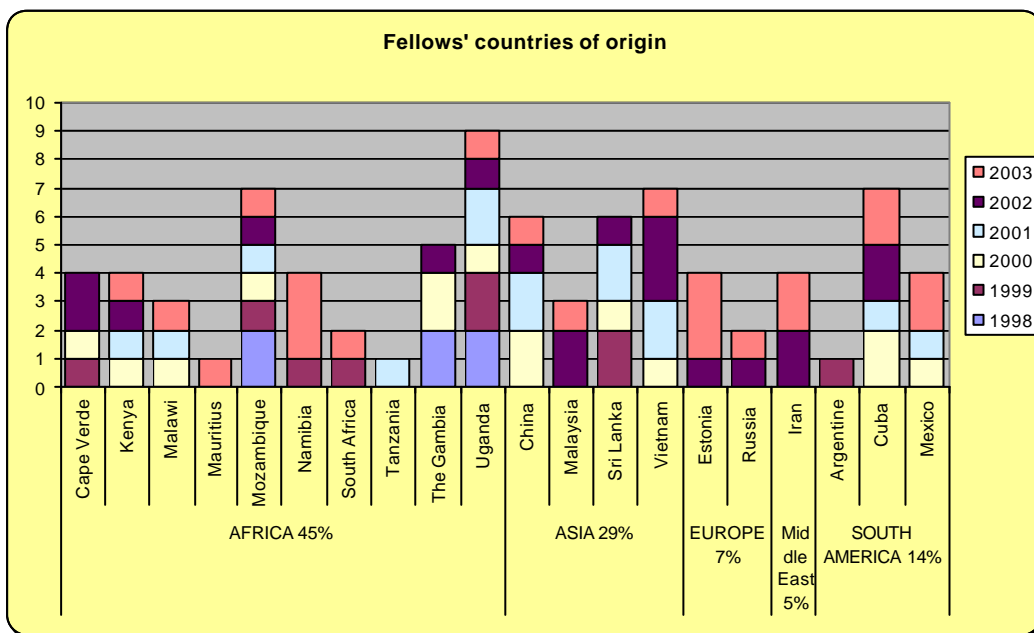


Figure 1 The origin the FTP fellows distributed by continent, country and years

The number of fellows has gradually been rising, from six fellows the first year to 22 in the cohort of 2003-4:

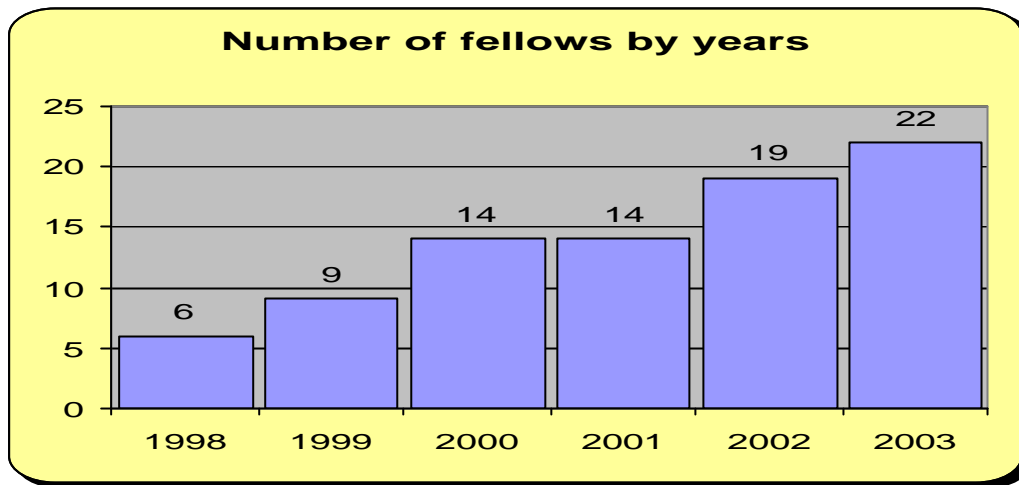


Figure 2 Development in the number of fellows participating in the UNU-FTP

Increasing demand, increased financing and also the fact that some countries finance their own fellow's tuition have led to an increase in the numbers of fellows.

2.4 Selection of Fellows

The UNU has a general policy on the selection of candidates, which is based on the aim of strengthening institutions. Candidates are chosen after interviews taken in their own country, not only on individual merit but also in view of what they could potentially "contribute importantly to the goals and functions of his/her home institution".³ In addition, the FTP board has approved guidelines for the selection of countries and candidates.⁴

In spite of these guidelines, the question of selecting the "right" candidates is still a prominent one. According to the guidelines, candidates should at least have completed a first university degree or equivalent and the course is consequently run at a postgraduate level. In spite of this, both the directors and some lecturers mention difficulties stemming from the fellows' diverse levels of competence. To complicate the matter, the directors sometimes find it difficult to find qualified candidates in some countries where they would like to invite candidates.⁵

³ Feasibility Report 1996:29

⁴ Criteria for the selection of cooperating countries...(2002)

⁵ See also discussion on page 50

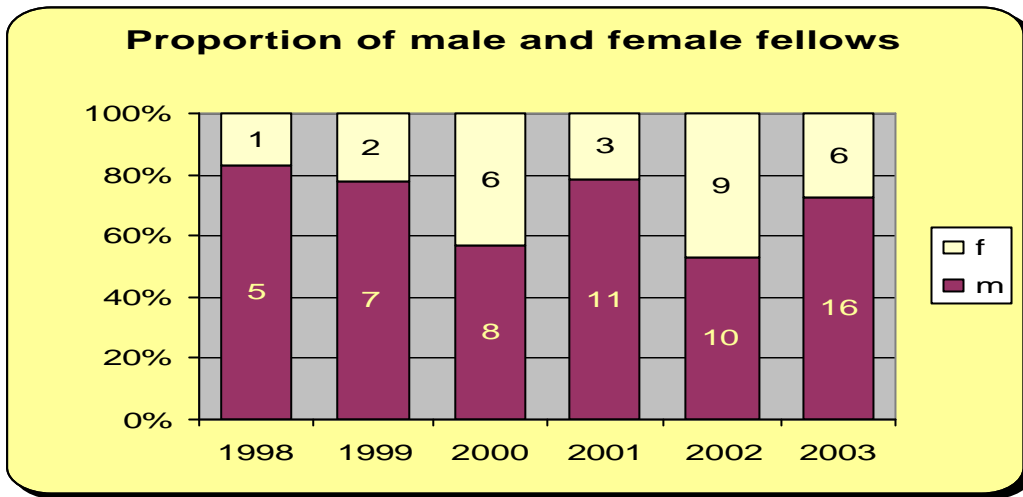


Figure 3 Proportional participation of the sexes in the FTP

The proportion of female fellows has been rather low, apart from 2000 and 2002 when the proportions were about equal. This can be explained by a lack of qualified candidates. The Programme is proactive in its efforts to keep a balance between the sexes among fellows.

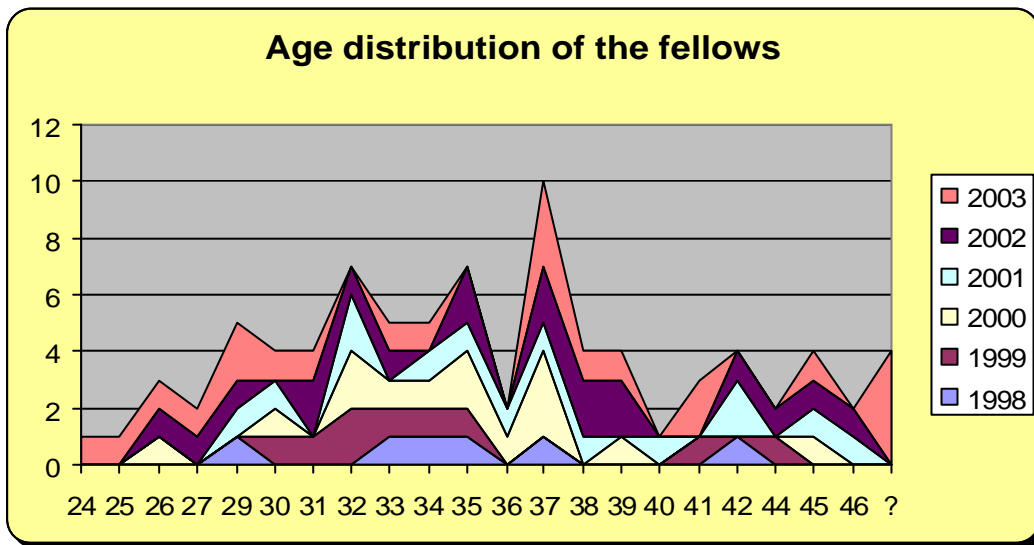


Figure 4 Age distribution of the fellows

The majority of the fellows who participate in the FTP are in their thirties. They have finished at least a first university degree and acquired some work experience in their field. It is a policy decision to favour people who have experience but still have many years to serve in their country after finishing the course.

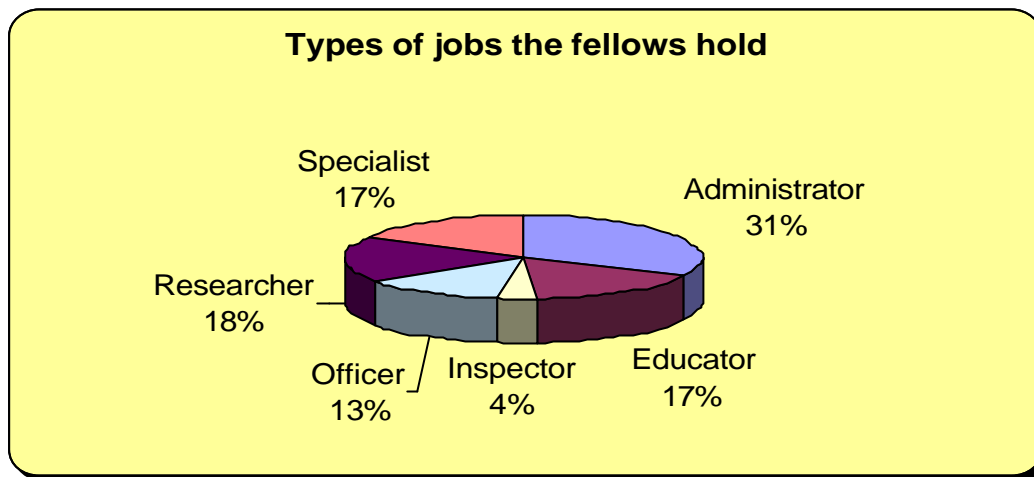


Figure 5 Types of Jobs held by the fellows when they come to Iceland

Fellows come from a wide range of professions. This makes sense from the viewpoint of capacity development because thus a wide range of fellows will be able to influence different institutions at different levels with the experience they have gained at the FTP.

2.5 Development of the Programme

During the first years the programme board had to decide when to receive the fellows. After receiving them once in August and once in June, the programme board decided by the third year to place the timeframe of the course at the beginning of the fishing year. Now the fellows arrive in the beginning of September and stay until February, when most activities are expected in the field and when most of the local specialists are likely to be present.

The Introductory Course started as an eight week intensive programme, run in Reykjavik and Akureyri. The Introductory Course has become shorter over the years and will be five weeks long in the academic year 2004-05. From the beginning some ten days of the Introductory Course have been held in Akureyri. Later a few fellows return to Akureyri to finish off their specialisation and final project.

Table 1 Overview of the FTP timetable

Inter-views	Selection of candidates	Introductory course 6 weeks	Specialization 4 weeks	Final Project 16 weeks
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Curriculum development has been one of the major activities during the first five years. To begin with one to two Specialization Courses were developed each year. The first year the main emphasis was laid on the Quality Management of Fish Handling and Processing Course. The next year saw the development of Fisheries Policy and Planning, together with Fishing Technology. The next year, two specialisation courses were added to the curriculum: Management of Fisheries Companies and Marketing, and Marine and Inland Waters Resource Assessment and Monitoring. A specialisation in Aquatic Environmental Monitoring and Assessment was the last one to be added.

The formal responsibility for curriculum development lies with the studies committee, which is composed of one expert from each of the specialist areas offered by the programme and chaired by the programme director. In most cases though, the curricula is developed by a group of experts in the field under the guidance of the director and the deputy director.

2.6 Visiting Lecturers

Each year the FTP invites a world known authority in a specific field of fisheries to visit and hold a series of public lectures. With the choice of lecturers the directors try to appeal to a broad audience. These include:

Robert G. Achman, professor emeritus, Dalhousie University, Nova Scotia, Canada lectured in 1998 on Fats and Oils of Marine Biota.

Dr. Ross Shotton, Fisheries resources officer at FAO in Rome. He delivered five lectures in 1999 on fisheries management.

Dr. Jeppe Kolding, University in Bergen lectured in 2001 about fisheries stock Assessment.

Dr. Porfirio M. Alino, deputy director of the Marine Science Institute, University of the Philippines held four lectures in 2001 on fisheries around the Philippines.

Dr. Kenneth Sherman, head of Northeast Fisheries Science Centre in Narragansett, Rhode Island, USA, lectured about marine ecology and large marine ecosystems in 2002.

Prof. Daniel Pauly from ICLARM and the University of British Columbia, held six public lectures in 2002 on world fisheries in relation to ecosystem based management and modelling.

Dr. Felicia Kow professor and head of the Post-Harvest Technical unit in the Fisheries and Marine Environment Faculty at the Australian Maritime College in Tasmania, lectured in 2003 about quality management in fish processing.

Hans Henrik Huss, prof. emeritus in Denmark, lectured in 2004 about quality and safety control in fish processing.

The visiting lecturers usually hold a number of public lectures; participate in seminars and discussion sessions with the current fellows of the programme as well as receiving the fellows individually for short consultations on their final project. The lectures or information on the lectures is available on the programme website.

2.7 International Profile

Since the inception of the programme, international interest for the programme has grown rapidly. In 2000, the programme was an official sponsor of the Third World Fisheries Congress held in Beijing, China, where Tumi Tómasson gave a presentation about the programme. The programme has been visible on the World Wide Web since 2001. The

web site is in constant development. All annual reports report a strong interest in the programme from abroad, much more than the directors and are able to accommodate.⁶

3 Relevance of the UNU-FTP

3.1 Needs in partner countries

A brief online search with the keyword [World Fisheries](#) suffices to open one's eyes to an imminent crisis in humankind's use of living aquatic resources. With increasing demand for fish products and rising prices it is evident that continued exploitation of the seas is dependent on prudent and knowledgeable use of the resources. In some countries, increased fishing is being encouraged as a way to fight hunger, while in others increased fish consumption is more connected to health concerns. However, in some developing countries there is little formal knowledge about fisheries. Fishing is even unregulated in many places, a situation that in some cases has led to over-exploitation. One can thus easily argue that a way of addressing this crisis is to educate people working in fields connected in any way to fisheries. A complex subject matter such as this, with many conflicting aspects, needs to be addressed with advanced methods, which call for higher educational levels.

It seems self-evident that needs in the recipient countries are diverse. However, they have a common need for more competent professionals within the field.

In 1995 and 1996, feasibility reports were compiled based on a needs analysis in some possible recipient countries; this laid the foundation for the programme emphasis and fields of specialisation.⁷

3.2 Aims and Goals of the UNU-FTP

The programme objectives as they are expressed in the Feasibility Report are increased competence within the fisheries sector of the participating countries. To reach these objectives the UNU-FTP aims to support institutes, which need to build up a knowledgeable workforce to accompany a growing industrialisation and internationalisation of fisheries with diminishing resources. It aims at offering possibilities to widen the perspectives of staff in partner institutions, at the same time as they enhance their competences in their specific field of work.

To this end the FTP partners with key institutions in the recipient countries it has chosen to cooperate with, and after having interviewed candidates suggested by the partner institution the director offers qualifying professionals a place in the programme at a time when a Specialization Course in their specific field will be offered. This may be one or two years after the interview and sometimes longer.

⁶ Tomasson, 2001:4, 2002:4, 2003:3

⁷ See the Feasibility Report (1996):7-17 for a thorough discussion of the needs of world fisheries and specifically regional needs and as a consequence training needs in each respective region. An analysis of this and how the FTP has managed to meet these needs goes beyond the scope of this evaluation.

3.3 How relevant is the programme?

It seems of vital importance for countries entering industrialised fisheries and establishing international connections to build up local competencies in this complex field. This is said from the point of view of diminishing yields. Other points of view, such as the effect of different fishing methods on the environment, quality control and increasing the value of the catch would also support a view that finds an international training programme aimed at competency building of vital importance.

An institution wishing to spur development in many different countries and continents meets a very complex and diverse picture of needs. However, with rising globalisation in the fishing sector, and the interrelatedness that is built into this specific trade, the FTP's emphasis on creating an international atmosphere in the training programme must be commended. Connecting professionals from diverse backgrounds together as the FTP does, possibly opens their eyes for the needs of other players and gives a lasting impression of how interconnected they all are. A positive experience of learning and working together with colleagues from around the world should increase solidarity and understanding between people working in different countries. This is also in accordance with general UN aims.

4 Effectiveness and Efficiency of the programme

As mentioned above the programme is divided into two major phases: an introductory course of six weeks, and a specialization phase taking the remaining 4 1/2 months.

In what follows, each phase is considered separately through goal analysis - where we seek to establish whether the program reaches the goals set for each phase, in *effective and efficient* ways. The discussion points out what is well done and should be continued and what might be changed in order to better reach the goals. Some aspects of "breadth analysis" to find unexpected outcomes will also be used.

4.1 The Programme's Main Goals

Literature on goals and learning objectives often starts off with short stories or quotations where the moral of the story is: "if you're not sure where you're going, you're liable to end up someplace else",⁸ so sound and attainable goals tend to be the foundation of any learning programme, and a prerequisite for success.

In an evaluation like this one it is worth while to analyze the goals set for the programme, and to determine whether the actions taken are in accordance with these goals and are so structured as to guarantee or at least contribute to their attainment.

The UNU-FTP has broad overarching goals, which are typical of developmental assistance, as well as having objectives for each individual learning module. Some of these objectives will now be revisited and compared with the practice in the FTP.

⁸ Mager, R. 1962:v

Broad developmental objectives

According to the Feasibility Report written in 1996, and on which the programme has built its strategy so far, the goals of the UNU-FTP are to:

- ...help interested countries to achieve their fisheries development goals by upgrading the professional capacity of selected candidates in key fisheries subjects
- ...enable the trainees to attain a higher professional standard for the respective posts they may hold, or aim for in their countries.

These objectives need to be seen in the context of the aims of all United Nations University activities, where “Capacity Development” is an overarching aim. The UNU-FTP is a "Specialized Advanced training programme" within the UNU system, and is thus bound by its aims.

*"Capacity development aims at enhancing human potential and strengthening institutional resilience to address the challenges of human survival, development and welfare. As such, human resource development entails the enhancing of capabilities for self-sustained learning, for the generation of new knowledge or technology, or for their application. These capabilities are especially crucial to the development efforts of poorer countries as well as to the effectiveness of UN programmes."*⁹

The keywords here are:

- enhancing human potential
- strengthening institutional resilience
- enhancing self-sustained learning
- generation/application of new knowledge/technology

Understandably, it is difficult to measure whether any programme is reaching such overarching aims. However, from the point of view of theories of education, and adult education in particular, one can judge whether specific content and methods are likely to promote them in any way. These catchwords will especially be used to study the impact and sustainability of the programme. See below in chapters 9 and 10.

4.2 Description and evaluation

In chapters 5, 6, 7 and 8 we will study the objectives and the practice of each part of the programme individually, and compare them with comments and ratings in the course evaluations carried out by the programmes staff, with the comments attained through the interviews with present fellows, with the online surveys sent to former fellows and information attained through interviews with the staff.

⁹ Capacity Development 2002:1

5 Practical Arrangements

5.1 Arrival

The new fellows arrive in Iceland during the last days of August, and are received personally at the airport by the programme directors and transported directly to their apartments.

Settling into apartments

The fellows are housed in apartments around the city. The policy is to mix nationalities in the apartments where the fellows live during the programme. In this way, they hope to induce fellows who do not fully master English to use the language – which is the main language during the programme. With the lectures and the majority of the literature being in English it is vital to support language acquisition for those who do not master the language. It can also be argued that mixing the fellows like this can create an appreciation for different cultures. But of course it can also lead to culture clashes, which according to the interviews with the fellows, they usually manage to settle. There were individual complaints due to culture clashes, but most fellows were content with this arrangement. This said, the impression remains that the aims with accommodation seem usually to be met, with some very positive results.

Orientation and Practical matters

During the first days of the programme, the new fellows receive an informal orientation on practical matters in the city: They learn for example where they can buy groceries, get information about what is on in Reykjavík and about the bus system. One day is set aside for applications for residence permits, physical checkups, opening bank accounts and getting acquainted with the building where the UNU-FTP is housed. Until presently, the staff of the FTP has actively organised and facilitated all of these activities. During this time the fellows get to know the directors of the programme, who play a very central role in the fellows' experience of the course. It is a new experience for some fellows to be on first name basis with their superiors, and to receive the level of individual attention they receive during the programme. This is something acknowledged and emphasised both in the interviews as well as in the course evaluations, by people of all cultures.

In a discussion with the directors about the orientation, the idea was born that it might be interesting to organise parts of the initial orientation as group assignments, which the fellows complete on their own, in groups. This might help the fellows become acquainted with each other and learn to work together right from the beginning of the programme.

5.2 Socialisation

During the Introductory Course, they have a big workload: They listen to many lectures in the mornings, attend visits in the afternoons as well as working late preparing for a series of five presentations. In the interviews, some fellows described their contact with other fellows as superficial, even though they stay together nearly all the day and some even share an apartment. This is something that can be alleviated by giving due attention and time to activities at the beginning of the course helping the fellows to "break the ice" and

to become a functioning *learning community*. It is a general observation, too often overlooked, that learning groups need help from organisers or trainers to become *ready* to learn as a group.

Programme start

The first day of the programme starts with an address from the director of MRI, followed by an introduction of the facilities at the MRI, the library, the computers, e-mail accounts, work rules at the institute etc.

After lunch, the fellows get their first lectures: A lecture about fishing in Iceland and world fishing.

Breaking the ice

The beginnings of adult education programmes are a special and usually a rather difficult time. It is also generally acknowledged that adult learners learn faster and better when they can have meaningful relationships with their fellow students. To be able to *start* learning the learners need to have gone through a certain process which is part and parcel of course beginnings. This calls for special attention from the organisers of adult learning events. The organisers are in the unique situation of being able to shape the communication in the learning group from the very start of the learning event.

In view of this, and the information gathered from the fellows it is suggested that the task of helping the fellows to form a coherent learning fellowship as soon and as fast as possible should be discussed in depth. This should be done with consideration of the goals of the FTP programme as well as the broader aims of the UNU: Capacity Development.

Methodical suggestions:

- Group activities during the first days, where the fellows find out together how to arrange some of their practical needs.
- Make sure the fellows learn each other's names from the very start.
- Invite the fellows to formulate and discuss in small groups, as well as in the bigger group what expectations they have of the course.
- A community lunch during the first day.
- Group activities during the first learning modules.
- Write on paper or a central web page the practical information delivered during the first days; due to stress at the beginning of the course much will be forgotten!

A Ten Day trip to Akureyri

Towards the end of the Introductory Course all the fellows travel to Akureyri and spend 10 days of intensive lectures at the University of Akureyri and undertake site-visits. The directors of the programme report, that the ten days the fellows live together in a big apartment in Akureyri is a time when the group grows together more intensely than before. An important part is the nightly ritual of cooking together. They take turns at shopping and cooking in teams, often with regional influences, and then enjoy the fellowship at the table with the whole group. This experience builds up a closer group atmosphere.

The fellows also acknowledge this in the interviews. Some mentioned this effect on the group and expressed the wish to divide this kind of learning in two different sessions of five days each, instead of the ten days in one block in Akureyri.

"The most important benefit on the trip to Akureyri was that the students could live together and enjoy themselves and have the opportunity to find the function in the groups." (Course Evaluation)

International Atmosphere

It is quite clear from the interviews that the fellows appreciate the international character of the programme. They acknowledge the benefits of getting to know people in the same field from different countries.

"It's quite good you know, you come to know a lot of different people. We are here together for 6 months and get to know each other.... You come to know the Mexicans and the Cubans, they are very outgoing people, and about their way of life. You come to appreciate what others are...." (Interview)

Some fellows mention that they learned a lot by hearing their fellows recount, both in discussions and in their presentations, about experiences, successes and mistakes made in the different countries represented. One of the aims of the UNU Capacity Development is to "...endeavour to alleviate the intellectual isolation of persons in such communities in the developing countries which might otherwise become a reason for their moving to developed countries".¹⁰ The UNU-FTP can thus be seen as a way to help the fellows to create intellectual liaisons with people in other parts of the world, and maybe especially in their part of the world. When probed about this, the directors of the programme acknowledge that they try in their selection process to select candidates from country blocks, which in some way have parallel interests, thus building up a group of experts who know each other and have similar experiences. In this way, they hope to increase the impact of the programme in the receiving regions.¹¹ In view of the effects on the group and general appreciation for the trip to Akureyri, together with some comments in course evaluations and interviews asking for more possibilities of visiting the Icelandic countryside, the directors might consider organising a weekend-trip of sight-seeing together with some group activities early on in the programme.

Other social activities

The directors actively create possibilities for the fellows to socialize and get to know each other. The first conscious "action" in this direction is the aforementioned mixed residency of the apartments where the fellows reside. At the end of the first week, the director invites the fellows to his home for a common meal. This is repeated on New Years Eve and during the visit of the visiting lecturer and for a farewell party at the end of the programme. During the programme, the office organizes some excursions, both especially for the FTP fellows, as well as urging them to participate in social activities at the MRI.

Birthdays are celebrated, with a special "celebration coffee" and singing.

¹⁰ The Charter of the UNU: Article 1, Paragraph 7

¹¹ See discussion on selection of fellows and partner countries: p. v and 6

It is evident that the directors have been mindful of the importance of helping the fellows create meaningful relationships with each other, both to enhance learning but also to enhance international cooperation after the fellows return home. However, there is need for more organised methodical action with the aim of creating a learning community among the fellows. In addition to this, if the overarching aims of the UNU charter to break intellectual isolation in the developing countries are to be met, the fellows need to learn methods of learning together with the use of on-line co-operation tools. There are some methods of computer-aided communication, which also suit on-site learning groups, which are also part of distributed, informal learning communities. Some of these would certainly be beneficial to professionals, isolated in developing countries. Establishing an online forum on fisheries might thus be a worthy extension of the UNU-FTP and a joint venture with the partnering organisations.

5.3 Working Conditions

Workstations

The fellows all have their own workstations at the MRI, and come to work daily just like the MRI employees. They have keys to the institute, allowing them to work after hours and weekends. The fellows have access to the same working conditions as MRI employees, such as computers with internet access, photocopying facilities, and library.

Access to Information

Library

The fellows have access to an extensive in-house trade library with 10.000 volumes on fisheries; in addition, they can use the University and National Library. Many fellows mentioned in the interviews and the course evaluations that they had appreciated the easy access they had to information and the helpful staff in the MRI library.

Internet

Each fellow has a computer during the stay in Iceland. The computer has broadband access to the internet as well as to the institutions' intranet. During the Introductory Course, the fellows get training in using the computers, search engines and dedicated databanks.

People

At the MRI the fellows get to know and have easy access to many of the best specialists in fisheries. They eat in the same canteens as these specialists and are free to contact them for help. This is in keeping with the UNU emphasis on situating the programme in a research locality. The IFL is also situated in the same building, so specialists in fish processing are also close at hand. Additionally the leadership helps the fellows to contact other specialists working in other institutions and private companies where it seems to be considered an honour to be contacted by the UNU-FTP on behalf of a fellow.

Learning materials

Handouts / transcripts

Most lecturers deliver notes, or handouts with their lectures. These are usually also accessible on the local area network, so that fellows can always access these, and at the end of their stay they are urged to save these on permanent media to take home. Some fellows mention this service in their evaluations as very valuable. According to the course evaluations, the quality of the handouts varies from one lecturer to another. Lecturers might be urged to consider how their handouts will be used, i.e. both as learning material to help the fellows understand the current lecture, but also as future reference material, when they review what they have learned at home.

Books

Each fellow receives a budget with which he/she can buy books.

Research materials

The fellows also get a special budget to buy reports and other materials necessary for the research for the final project. Some buy satellite photographs of areas they are studying or specialized reports done by research agencies on defined areas.

Courier services

At the end of the programme, each fellow receives an allowance to send books and other material home with a courier service.

6 Introductory Course

The first part of the programme is a 6-week introductory or "core" course. The course consists mainly of lectures, work on assignments given by the lecturers, site visits, the fellows' own presentations of the fisheries sector in their home countries and some competency courses offered by the programme.

Table 2 General layout of the Introductory Course. For a detailed overview of the course see Appendix 2.

		Introductory course				
		6 weeks				
		Reykjavík		Akureyri (10 days)		Reykjavík
Practical	Practical matters					
Content	Introduction	Theory and visits				
Individual work	Personal goals		Presentation		Revision of personal goals	
Support	Computers	(Internet search & PowerPoint presentations)				
Social	Get together			Live and cook together		

In this chapter, we aim to present the organisation and execution of the Introductory Course. We will compare our observations with the programme objectives, the fellows' reactions as well as observations from some lecturers and the directors of the programme.

6.1 Objectives of the Introductory Course

This part of the programme is designed to give the fellows a broad understanding of the fishing sector. Objectives for the Introductory Course are communicated clearly in a document with general information on the programme itself:

"The overall objective of the core course is to give the participant a holistic view of fisheries through an overview of world fisheries and aquaculture and an insight into the various disciplines within fisheries and their interrelationships. After completing the course he/she should have developed an understanding of what is needed for a fisheries sector to develop, be able to put the fisheries sector in the home country into a regional and international perspective and have an appreciation for its development potential."¹²

We can summarize these in four major objectives as follows.

The fellows should acquire (an)

- Holistic view of world fisheries
- Insight into different disciplines
- Ability to put their own fisheries into an international perspective
- Appreciation for local potential

Attention is also paid to a fifth objective:

- Proficiency in ICT

The directors of the programme consider the introductory course to be very important. They find it essential that any expert in the field of fisheries have reasonable insight and understanding of the field as a whole, to be able to appreciate his/her own role, and how it affects and is affected by colleagues.

Both the specific goals of the Introductory Course as well as the overarching goals of the UNU¹³ will be revisited during the discussion of specific parts of the programme, as well as in the chapters on impact and sustainability.

6.2 General Organisation

To reach its objectives the six-week Introductory Course offers lectures on different aspects of fisheries and one or two visits per week to companies and institutions in the field of fisheries, extensive visits while based in Akureyri, as well as four "competency courses" in using computers, gathering information, making and delivering presentations.¹⁴ The fellows prepare five presentations on different aspects of fishing in their home countries and relate them to the topics being discussed. Lectures are usually in the mornings and afternoons are often used for visits or preparation for presentations.

¹² General Information 2004:1

¹³ See discussion above: p. 11 ff.

¹⁴ See Appendix 1 for an example of the schedule of the introductory course

Course evaluations performed by FTP staff in 2003 include questions about the general organization of the introductory course, so do the interviews taken with the fellows for this evaluation. These generally commend the organisation of the Introductory Course, although many current fellows and some former fellows find it too long. (This will be discussed again at other stages.)

The Role of the Introductory Course

The directors note that although many fellows have advanced degrees in their specific field of fisheries and sometimes many years of experience, their general knowledge of the fisheries sector is often very narrow, and they often only have a partial picture of their field of specialisation. Therefore, they find it very important that the fellows widen their perspective and learn how different disciplines are interrelated.

For some fellows this part of the programme seems to induce a "Eureka" experience. The interviewed fellows unanimously claim the goals of the introductory course were attained. Especially prominent is a widened horizon and a more holistic view on their field of work:

"Actually when I came here I really realized I knew so much about very little." (Interview A)

"So I think it really gives that kind of wholesomeness (sic)" (Interview A)

"Before I came I had a rough idea... the basic course helped me to focus and opened my horizon... opened my eyes to areas I had not [studied] before, so I would say the broad goals were very insightful and quite attained." (Interview C)

For some, the introductory course has the function of refreshment of acquired knowledge, while others learn many new things. It is evident from the interviews and the comments on some of the lectures, that the fellows experience quite a few "eye openers" as one fellow called it. At least for one current fellow the Introductory Course had the effect that he radically changed his personal goals for the stay in Iceland, judging his original goals as irrelevant in light of new information, which he would not have received had he only focused on deepening his knowledge in his speciality.

Former fellows also found the Introductory Course important, or very useful. They explain that they find its role important or necessary in the totality of the course, giving them insight into fields they otherwise would not have studied, and thus a better understanding of other colleagues in the field. This seems to be in accordance with the directors' aims. They say they are not aiming at developing specialists in a certain field but generalists who can successfully communicate with specialists in different fields.

Most of the former fellows who answered¹⁵ the online survey rated the Introductory Course as useful or very useful:

Table 3 Answers to the online-survey: Most fellows who answered found the Introductory Course useful.

I would rate the Introductory Course as

¹⁵ See discussion about response to the survey above

A waste of time	0
Rather useless	0
OK	3
Useful	11
Very useful	5
other: "Ok but long"	1

Their responses also indicate that they were generally satisfied with the content of the Introductory Course.

Table 4 Answers to the online-survey: The fellows who answered the survey were most satisfied with the course, but note the distribution, and compare also with the Specialisation Course below.

How satisfied were you with the content in the introductory course?	
Unsatisfied	1
Indifferent	1
Reasonably satisfied	4
Satisfied	11
Very satisfied	3

These numbers from the online survey coincide with views expressed both in interviews and in the course evaluations.

The Length of the Introductory Course

It has been an ongoing task to find out how long the Introductory Course should optimally be. The programme directors have been looking for a balance between giving enough time for the delivery and acquisition of “just enough” information and knowledge so that the fellows can with reasonable confidence say that they understand how their field of expertise – *Fisheries* – is organized, and what major factors influence it. To begin with, the Introductory Course was eight weeks long¹⁶. It has been shortened to six weeks and according to a number of fellows it should be shortened even more.

"It gave me an overview and general knowledge of world fisheries. However, it was a bit too much for me when I received the lectures which did not belong to my own field." (Online survey)

This view expressed by the fellows could be interpreted in different ways. *First* these statements could be taken at face value and one could consider shortening the Introductory Course, if the directors find these arguments compelling. *Secondly* one might view them with the insights gained from research into adult learners, which finds them to be generally very purpose-orientated, something which seems to become more

¹⁶ An interesting observation: Many fellows already then complained that the Introductory Course was too long, but when asked for suggestions about the course most fellows suggested adding something to the Introductory Course!

pronounced with increased age. This is something we also witnessed during the interviews. Some younger interviewees were very positive towards the introductory course and expressed content having broadened their horizon. However, some older fellows, with more experience and very clear (and sometimes narrow) goals for their stay in Iceland, expressed less tolerance for the Introductory Course, especially the length of it. *Thirdly*, the fact might be considered that during a short course of time the fellows listen to many lectures from many different lecturers, while they are also very occupied producing presentations about the fisheries sector in their own countries. Our evidence reveals that lecturers in the Introductory Course emphasise *delivery* of information sometimes at the cost of discovery, discussions and problem solving. This is likely to tire the student in the long run. Adult learners in particular tend to find this kind of learning activity of less value than other activities, especially if this form is dominant. If the directors and lecturers find it necessary to cover *all* the contents covered in the Introductory Course, e.g. to create a *common ground* of knowledge for the fellows, one might consider diversifying the teaching methods, adding elements of self-study, group work and discussions to keep up student motivation. Diversity in methods, especially with the addition of methods, which encourage the fellows to discuss, digest and sort the new information both support learning and stave off boredom. It should be pointed out that these elements need not always take up very much time to be useful.

In line with the comments on usefulness and for the sake of balance, there are comments in all the sources where fellows found the Introductory Course too short. Here an example:

"The organization of the introductory course is good except that the time allocated is little for one to really grasp what is being taught. Maybe in the future this should be extended to have more time for fellows to read their materials." (Course Evaluation)

For some fellows it is probable, that an intensive course with the large amount of new content in the Introductory Course could be overwhelming. Didactical elements of reflection and synthesis as mentioned above could alleviate this.

6.3 Activities

The Introductory Course is built up with four main activities:

Lectures delivered by leading specialists in Iceland on each area of competence

Visits to companies and institutions involved in fisheries

- **Fellows' Presentations** of different aspects of each their local fisheries sector with reference to local and global connections.
- Fellows own **study time**
- Other parts of the programme:
 - Practical matters before the course starts
 - Practical orientations
 - Four competency courses

We will now introduce these different activities that are part and parcel of the Introductory Course, and consequently analyze each activity's contribution to the attainment of the goals.

Lectures

During the first six weeks, the programme consists mainly of 23 "lecture-blocks" most of which are about 2-3 hour lectures, but some, such as blocks 20-23 consist of many lectures and go on for a few days.

These lectures are held by experts at the MRI, IFL, the University of Iceland and the University of Akureyri and some private companies. They can be divided into the seven main areas of fisheries:

- World fisheries and aquaculture
- Marine biology and environmental conservation
- Gear and fishing technology, and fish finding equipment
- Fisheries biology and stock assessment
- Fisheries policy and planning
- Quality management of fish handling and processing
- Management of fisheries companies, and marketing

The lectures have been extensively evaluated at least during the last 3-4 years with the use of written course evaluation formularies. The focus of these evaluations is the performance of the lecturer and the relevance of his topic and lecture.

What do the fellows say?

An analysis of the evaluations finds that the fellows are happy with the lectures during the Introductory Course. They usually find the lectures relevant to their interests and well presented. The fellows also relate a positive reaction to most of the lecturers whom they generally find knowledgeable, friendly and helpful. They usually express satisfaction with the amount of information delivered and its relevancy. Frequently the fellows comment the lecturers like this:

"Overall the lecture was good and its contents were also good and relevant to the visuals given. Handouts were a bit clear and one could easily read on his own and get the sense. The lecture was very relevant to the course."

A total of 53 lecturers receive an average score of 4,3 on a scale of 1-5, the minimum average score is 3,3 and the maximum average score 4,9 with a standard deviation of 0,3 which shows how sparingly the fellows use the scale. It is thus a problem for the directors of the FTP to interpret these evaluations. Nearly all lecturers are rated between 4 and 5 on the scale of 1-5! This has led to an effort of "stretching" the scale, and interpreting a score of less than "4" as an "alert signal", warning that something could have gone wrong during the respective lecture. The directors communicate that this has sometimes led individual lecturers not being invited back.

It would be useful to study these evaluation surveys in order to make them more accurate and easier to interpret.¹⁷ To alleviate interpretation the scales could be changed, maybe

¹⁷ Advice on questionnaires might be sought, e.g. from RKHÍ

the use of words would be more appropriate than numbers e.g. instead of 1-2-3-4-5 with 1 meaning "very poor" and 5 meaning "very good" (cf. evaluation form 2003), it might be useful to use descriptive words pertinent to each question e.g.

Was the lecturer punctual?

The lecturer:

- always came late
- came late occasionally
- came late on 3-5 occasions
- came late on 1-2 occasions
- was always on time

Figure 6 An example of evaluation questions which yield more specific answers: To increase the accuracy of the course evaluations, words might be used instead of numbered scales.

The interviews give the impression that the fellows' experience a lot of information *delivery*. The comments on the surveys regularly mention that the lectures include very much detail, sometimes "*too much to digest*". Some complain that there are too many slide shows (while one fellow complained when a lecturer did not use PowerPoint!)

Another observation made by a few fellows is that they hardly get to know the lecturers, because they usually come for one lecture and do not come back again. For some fellows this means that they do not ask the questions they might have asked, because they do not know the lecturer well enough, or the lecturer simply does not have the time to answer questions or discuss details of the lecture. Some fellows mentioned that they would have appreciated other methods as well. One fellow suggested "*interactive workshops in groups, with assignments*."

What do the lecturers say?

The lecturers contacted relate the same scenario as the fellows. They usually come for a short period to deliver one or two lectures. Usually they have a relatively short time to present a large quantity of information, so there is no time for projects, group work or homework. They generally find the fellows very interested and willing to ask questions. Here the reports are conflicting. However, it is to be expected that different people interpret what they experience in different ways. One lecturer might be thrilled to get two or three questions while another would find such a group passive! For example: One fellow reported to being "*one of the few who ever asked questions*". While a lecturer related that it was easy to get the same group of fellows engaged in discussions about the subject, she related however, that often the fellows would sidestep and get stuck discussing the problems in their "developing" countries.

Discussion

As we have seen, the lecturers in the Introductory Course rely heavily on delivery of information in their teaching. They usually come for a short time (1-3 lectures). Our evidence indicates that interactivity during or after some of the lectures might be increased to enhance the educational value of the lectures. One aspect influencing interaction

between lecturer and the fellows mentioned by some fellows is unfamiliarity with the lecturers who usually only come for a short time. One fellow mentioned that they do not manage to get to know them well enough to feel free to ask questions. However cultural aspects are also very likely to play a role, as in some countries discussions and debates are not part of the university culture. To increase interactivity it would be worthwhile to consider using more diverse methods where discussions could be augmented gradually. At least one fellow related that the subject matter dealt with was of a relatively basic nature, and thus the same person should be able to lecture on more than one subject. This would have the benefit of some continuity for the group. Time would not be lost in the modalities of getting acquainted and more timid fellows might gather up strength to ask questions. It would also be easier to expect a lecturer who works for longer periods with the fellows to find ways of incorporating different teaching and learning methods into his work with the fellows. The directors however did relate that they have been trying to reduce the number of lecturers. They confirmed that in some areas something to this effect might be achieved, but in others they saw no possibilities of doing so, because of the need for using the best specialists for each content module. If however one cannot reduce the number of lecturers, one way of adding elements of interaction, reflection and synthesis might be by adding assignments which involve discussion and group work directly *after* or even *before* some lectures.

Methodical suggestions:

Reflection groups: Assign the fellows into reflection groups which meet for one hour after each morning of lectures, they summarize what they learned and discuss in what way it relates to their own experience at home. They might also be required to post this as a blog on a web, or to ask follow-up questions to the lecturer which they post on an on-line discussion board, where they are expected to respond to the lecturers answer as well.

Assignments: The lecturer prepares group – or individual assignments to be completed in an hour after the lecture. The programme staff / or the fellows themselves facilitate a discussion on the assignment afterwards. Or in some cases the responses are posted on the course web.

Different perspectives: Before the lecture the fellows are divided into 3-4 groups. These groups get different assignments *during* the lecture: One group should note everything they disagree with, another everything they find applicable in their situation at home, the third should note especially theoretical input. After the lecture the groups can: A: discuss these findings with the lecturer or (if this is used as an activity *after* the lecturer has left) in small groups, first and then in the larger group. Facilitation: Lecturer, programme director or fellow.

Fellows' presentations

An important part of the programme is the time allocated to the fellows' own presentations of the fisheries sector in their home countries. Each fellow prepares and presents orally five-minute presentations in front of his fellows, on different aspects of fisheries in their home countries, followed by questions and discussions.

Presentation 1: fisheries and/or aquaculture in the fellows' home country

Presentation 2: on fishing and environmental issues in the home country, or fish biology

Presentation 3: on fish processing in their home country

Presentation 4: on the private sector developments in their country

Presentation 5: on the status of stock assessment and fisheries management in their home country

The goals of these presentations are threefold:

- 1) To train the fellows in presenting information concisely and confidently in front of an audience.
- 2) To give the fellows an opportunity to study their local fisheries sector and compare it with other countries.
- 3) To inform fellows about the fisheries sector around the world.

Experience

Most fellows express satisfaction with the presentations and feel they learn very much. Some learnt things they did not know about their own countries' fishing sector, they found sources they did not know existed and acquired a new perspective on their home country. For others the process itself of extracting information and presenting the main data in only five minutes was a challenging learning project. Some had thought of bringing data from their home country, while others had to start from scratch to look for them. Understandably, this was sometimes difficult. Some fellows express frustration: lack of time, lack of information, lack of competency in using the presentation software and hardware, as well as in presenting in front of an audience. Other fellows reported having had to learn to use PowerPoint for the first time, something they were all very happy to have learnt.

Some fellows had difficulties collecting the necessary data, and wished they had prepared for these assignments back home:

"Before we come here we should be asked what we intend to do. And we should prepare [ourselves] for the project... Sometimes we have to go to places to find information from my country." (Interview F)

Others found information they would never have found in their own countries. In information the fellows receive before parting for Iceland the fellows are explicitly urged to bring vital data with them from their home countries. Therefore, in view of the number of fellows who concur with the citation above this aspect should be stressed in some way, and maybe the fellows should be urged to create contacts with necessary informants they can contact when they are in Iceland working on projects connected with their countries.¹⁸

"Actually when I came here I really realized I knew so much about very little. When you go to school then you go to work, you take one field, you keep focused on that one field and you tend not to bother to know about what others are doing. I personally had that kind of problem. When you came here, it was like "I know this", I know fisheries in my country. I was finding myself in the situation that I came to realize I didn't know much, I had to look for this information. So at the moment I think I have that general overview of almost everything. I came to learn so much about other things. So I think it really gives that kind of wholesomeness, most of it you'll come to learn a few aspects of fisheries and other things that are related with it in the environment." (Interview A)

¹⁸ Maybe the office could prepare a checklist for the fellows: "Did you remember to take: 1) information on.... 2) email addresses of...." etc. And have space on the checklist to fill out relevant email addresses!

Visits

Visits to local institutions, laboratories, companies and factories in the fishing industry are a prominent part of the Introductory Course. These often take place in the afternoons. Icelandic companies in the fishing industry are among the most technically advanced in the world, and according to some of the lecturers interviewed they often represent “schoolbook examples” of procedures and use of technology.

The companies and institutions visited are usually connected to the content covered in adjacent lectures. Theory and practice are thus connected as closely as possible.

The fellows are usually very positive towards the visits.

"I would like to have some more visits because they were greatly useful. People at the companies were very kind."

"I evaluate all the visits of very good because they were practical and interesting." (Course evaluations)

On several occasions, the fellows commend the organisation and logistics of the visits. Negative comments include comments on the time available for the visits:

"The organization has been good except that time is a limitation when we visit all of those companies." (Course evaluations)

A few mention that they found the visits during the specialization course to be more focused. The size of the group also had its effect:

"In comparison to the visits during the introductory part of the programme these visits were much better because the group is smaller." (Course evaluations)

These reactions spur questions about the visits; how they are organized by the hosts and the directors of the programme and how focused they are toward the learning objectives of the course.

"I think it is better that all fellows are divided into various groups according to one's speciality when visiting company or factories, and that increasing the chance of communicating with companies." (Course evaluations)

In view of these comments it might be worthwhile to consider dividing the group when it arrives in a company, one group studying the managerial aspect of the company, while another studies the production. On the other hand, this is something that usually happens during the Specialization Course, and the aim of the Introductory Course is to give the fellows a wider perspective! Thus, another way of improving on a practice that clearly receives very positive reactions is to divide the fellows into smaller groups when possible.

Study Time

The fellows use evenings and some afternoons to prepare their presentations and review some of the lectures they have received. As mentioned above they have their own workstations for the whole time. In Reykjavik, they have new computers with good connections and a variety of peripheral support. In Akureyri the fellows find the support of a somewhat lower calibre, but altogether acceptable.

Competency Courses

The fellows receive five "practical orientations" or "competency courses" during the Introductory Course:

- An introduction to the computer systems, e-mail, internet and work rules at the MRI
- Using computers: Word, Excel, PowerPoint, e-mail, **(optional)**
- Graphics: Digital camera, pictures in documents, posters, editing pictures **(optional)**
- Use of specific online databases
- Oral presentation

Some of the fellows have had few opportunities to use computers and the internet in their home countries, while others are used to using them for their work. It is thus very important to offer training in the necessary competencies at the beginning of the programme in order for the fellows to benefit from the facilities. This is also something for which some of the fellows were very appreciative. The directors might consider offering additional support for presentations (also low-tech methods) in view of the fact that some of the fellows expect, or are expected to teach and train when they return home.

Akureyri

Part of the Introductory Course takes place in Akureyri. The fellows, together with the directors live and learn together for ten days. They attend lectures at the University of Akureyri in the mornings and visit companies and institutions in the afternoons. As mentioned above the visit to Akureyri was appreciated by the fellows.¹⁹

6.4 Conclusion

From the point of view of the fellows the six week Introductory Course meets its objectives, and gives them a broader perspective on their chosen field of work. The fellows generally find the lectures to be interesting, but for some reason some find the course too long. It is this evaluator's assumption that a methodically monotonous style of teaching can have just as much or more to do with this feeling as other factors. The fact that adult learners tend to be practical in their learning and thus find the Specialization Course of more importance might affect this judgment. Whatever the cause it is evident that ways should be found to diversify the learning experiences during the Introductory Course, both to stave off boredom and more importantly to facilitate learning.

¹⁹ For a more detailed discussion of the visit to Akureyri see: p.14

7 The Specialization Course

Following the Introductory Course the fellows are divided into small groups of 3-6, who engage in a special field study for 5 weeks. This is the first part of the Specialization Course. During the latter part the fellows work on a final project which they have been preparing for most of the programme. For the final project the fellows are assigned supervisors, specialists in the respective fields.

7.1 Introduction

“The specialist training is divided into 5 weeks of lectures on specialist topics (in relation to the specialist lines) and is designed to train fellows in their area of specialization. After the Introductory course the fellows are split up in groups according to their area of specialization. Fellows receive three to five lectures per day and assignments and exercises in the afternoons to work on. Visits to plants and companies are an important part in the specialist training.

...

During the specialist course the fellows are expected to develop ideas on a final project which they will be working on, in close cooperation with a supervisor, during the latter (three months) part of the programme. The study idea is written up in a proposal which fellows present (defend - justify) to the programme directors and supervisors. In this part of the programme fellows gain increased knowledge in their areas of specialisation, improve their practical skills and learn to appreciate the need for adaptability and flexibility.”²⁰

Table 5 General layout of the Specialisation Course

	Specialization 4-5 weeks		Final Project 16 weeks			
	Reykjavik / Akureyri			Reykjavik / Akureyri		
Fellows work	Theory &	visits		Work with supervisor	Finalisation	Public Presentation
Support from directors	Proposal draft		Pro-posal	3 formal meetings with fellows and their supervisors	Reading of drafts	

According to the Feasibility Report, the FTP's training strategies are as follows:

- To concentrate on individuals, giving them both theoretical and practical "hands-on" training.
- To select candidates who can immediately apply their newly acquired knowledge and skills at home.
- To make the programme flexible in scope, structure, contents and focus both to accommodate participants with different needs, and to be able to meet changing needs.
- To emphasise the practical aspect of learning by offering hands-on training and projects, site visits and direct involvement in research projects²¹

From the above we can see that the aim is to offer thoroughly individualised learning opportunities. To this effect the candidates have been “hand-picked” and only invited

²⁰ General Information 2004:3

²¹ Feasibility Report 1996:17-18

when their speciality can be addressed in the respective Specialization Course. The candidates must also have the necessary prerequisites to be able to apply their newly acquired skills. As we will see below, this part is difficult to monitor and can cause problems. We will also see that the fellows receive very good possibilities to connect their academic projects with hands-on experiences. For example, fellows who have designed fishing gear have been able to test them in a special tank used by a local company to test fishing nets “in-action”.

Organisation

Some specialization courses can only be held every other year due to the low numbers of fellows participating each year. Thus, fellows are invited when the specialization courses that fit their needs are offered.

Six Different Specialization Courses

The Feasibility Report suggests the FTP should offer seven Specialization Courses. During the first years the programme gradually built up the Specialization Courses and to date six have been offered. A course on *Aquaculture* has not been developed but people who work in that field can profit from taking other specialisation courses relevant to their field. The specialisation courses thus span the most important disciplines of fisheries. The courses have the following objectives:

A. Fisheries Policy and Planning (FPP)

The aim of the specialist part is to provide the student with a solid understanding of the basic principles of a socially beneficial fisheries policy and practical training in the design and implementation of such a policy.

At the end of this part of the course the student should be able to evaluate a given fisheries exploitation regime and roughly design and plan for the implementation of a successful fisheries policy for a given fishery.

B. Marine and Inland Waters, Resource Assessment and Monitoring (SA)

The objective is for the fellows to get an in-depth understanding of common stock assessment methods and their application. The emphasis within the course depends on the background of the students which may vary from one year to the next.

C. Quality Management of Fish Handling and Processing (QM)

The training is intended for students who have an academic background in food science, biology, (bio) chemistry or related fields. It is also important that the student has prior experience with fish handling and processing. The aim of the course is to provide the student with a thorough understanding of the crucial role of quality and quality management in international trade of fishery commodities.

D. Management of Fisheries Companies and Marketing (MFC)

The specialist course on Management of Fisheries Companies and Marketing is aimed at training people to be able to become managers of a diverse fishing and fish processing companies. The main objectives are:

- to give an overview of the basic theory in corporate management and finance
- to provide students with a comprehensive understanding of the day-to-day operation of fishing enterprises, from harvesting of fish to marketing of seafood products, and
- to train students in using their own problem solving skills to find solutions to actual problems in operations of fishing enterprises

E. Fishing Technology (FT)

The overall goal of the formal 5 week long course is to provide theoretical knowledge and practical training in fishing technology. A holistic view is taken of fishing technology. The act of fishing is viewed as the an

integrated process where due consideration must be taken of the design and materials used to produce the fishing gear, the biology and behaviour of the fish being caught, the environmental conditions on the fishing grounds and the design and operation of the vessel used to deploy the gear and the equipment used to monitor the environment, fish concentrations and the fishing gear.

F. Aquatic Environmental Assessment and Monitoring (AE)

The main objective of the specialist course is to examine how living aquatic resources are affected by natural and human-induced changes in the environment and how such changes can be monitored, measured, evaluated and mitigated. A close look is taken at the seasonal and stochastic changes in the aquatic environment and how the biota reacts to them. The human impact on the environment is also examined, where a special consideration is given to pollution and coastal developments that affects coastal areas. Coastal Zone Management is studied and how Environmental Impact Assessment is conducted. A special emphasis is on practical aspects of sampling and sampling design. fellows are trained in applying various computer software in analyzing and interpreting environmental data. ²²

Participation in the Courses

The Quality Management course has been offered every year since the beginning, and this is the Specialization Course most fellows have taken or 34%, the Fisheries Policy and Planning Course has also been offered from the beginning (but only one fellow in 1998

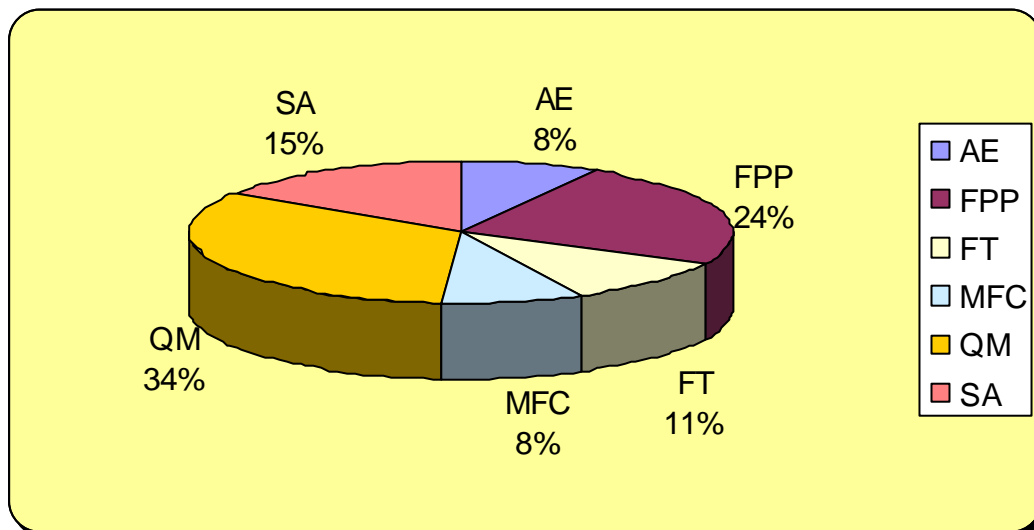


Figure 7 Percentage of fellows according to Specialization Course 1998-2003.

and 2000 and no one in 2002). 24% of the fellows have taken this. The four other courses have not been offered every year, but they are offered every other year. Figure 8 shows the distribution of fellows on the Specialization Courses.

²² Excerpt from the goals on the programme Web: http://www.unuftp.is/p_specialist.htm (15. Mai 2004)

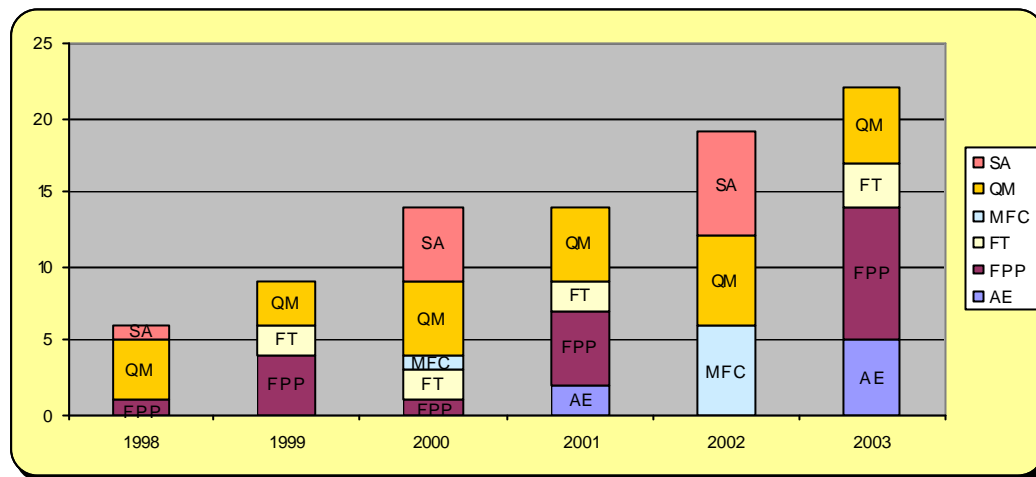


Figure 8 Distribution of fellows across Specialization Courses each year.

Duration of the Course

Many fellows found the Introductory Course too long and that the Specialization Course or the final project might benefit from shortening the introduction. It seems clear from the interviews, that the Specialization Course is a time when the fellows can deepen their knowledge considerably in their own field. One can also expect heightened motivation during this part of the course if theories on adult learners are right in the assumption that adults tend to be more motivated to learn if they see the possibility of direct application of the material they are learning. Furthermore, the Specialization Course is a time where the fellows work in small groups with closer personal contact and supervision. One could thus argue that a longer Specialization Course could lead to increased motivation and more individualized learning and consequently more intensive and sustainable learning. A longer course need not mean more lectures though; it could be lengthened with more individual and group projects allowing more time for incorporation and assimilation of new information.

7.2 Programme Contents

Content Overlap?

In the Introductory Course, the material covered is an overview and introduction to the same fields that are studied in greater depth in the Specialization Courses. There is thus a possibility of overlap between material covered in the Introductory Course and in the Specialist Courses. Some fellows mentioned this: "*A lot of this material was already covered in the introductory course.*"²³ This is something that can easily irritate adult learners. And is especially true in courses where the course is focused around delivery of information. It is well known within the field of training and adult education that when professionals participate in courses on their field of interest, that they tend to become disinterested when a lecture or presentation seems to contain too little "new content" to be interesting. Some of the interviewed lecturers and supervisors of the FTP independently report this observation: Some mention that fellows, often those with considerable experience in the

²³ Course Evaluation 2002

field, recognize parts of the subjects discussed and therefore find that they are learning superfluous content, or are learning material they already know. However later on in the course the lecturers find out that these experienced fellows, only had superficial knowledge of the subject, and have allowed their prior acquaintance with the subject to hinder them from deepening their knowledge.

The point here seems to be that although there may be overlap in content, both with what some fellows already know, as well as with the material covered in the Specialization Courses, the directors consider it important to cover the content. To address the possibility that some will have good- and others superficial knowledge of the matter, it is advisable to use more interactive teaching methods to activate the fellows who already have knowledge of the field. This activates the fellows experience in the field, but at the same time as the lecturer must make sure the group does not get lost going into depths, when knowledgeable fellows lead the way into interesting discussions which will turn out to be too advanced for those who have little knowledge of the matter. In many cases there is room for more detailed discussion of the topic in the Specialization Courses.

The directors mention that sometimes fellows with more knowledge in one field tend to lead the discussions in the Introductory Course much deeper into the material than was planned, leaving behind their fellows with less knowledge in the field. In these cases, the lecturers should take care not to allow the discussion to wander too far into these themes during the Introductory Course, and steer them into the Specialisation Course. – It might help to write down the questions or comments and promise to take them up at the relevant time in the Specialisation Course or ask the fellow to do it him/herself.

Irritation because of this feeling of touching too often on “basic” knowledge or subject matter some fellows know, or think they know, can also be alleviated or avoided either by discussing the possible overlap with the fellows beforehand or by explaining why it happens and by familiarizing the specialists lecturing in the specialist course with what was covered in the introductory course. (Although the directors say that they do inform the fellows about this possible overlap at the start of the Introductory Course. One must expect most of the information related during the first days will be forgotten because of initial stress.) However, it is also possible to approach this by *involving* the fellows in deciding what material to emphasise, at the beginning of each new content block. The easiest way of doing this is by presenting the lectures goals and consequently giving the fellows some minutes to discuss their own knowledge of the matter and needs they perceive in connection with the material. Armed with this information the lecturer can adjust his/her lecture to the needs he/she perceives after this initial discussion. The lecturer can also help change this perception of “familiarity” with the contents by using an interactive teaching style, where the learners are encouraged to be more involved in discussing the contents and sharing their own experience with the subject. Fellows with extensive experience in the field might thus be encouraged to share their experience with the subject in practice, and even explain certain parts of the material to his/her fellows.

7.3 Do the Specialization Courses Reach their Goals?

Development of the courses

The objectives and goals for each Specialization Course are originally laid down in the Feasibility Report, later they have been modified somewhat and are communicated in information material from the FTP. Each Specialization Course has had its own advisory committee, which has worked together on organizing and developing the course. These committees have worked with varying intensity during the last years. From lecturers interviewed we learn that some of the Specialization Courses have been revised or are in the process of being revised based on the experience so far. One lecturer teaching in the Stock Assessment Course explained that the emphasis has been on teaching the fellows fundamental ideas about the growth of fish stocks and factors influencing it, and less on the practical aspects of collecting precise data, and interpreting it to make it useful for decision-making. But now they are in the course of shifting the emphasis from helping the fellows to “know *about*” stock assessment to “knowing *how*” to *do* stock assessment, thus directing the focus more on gathering exact data and how to use and interpret it.

Reaching Goals

The interviewed fellows expressed some hesitation when asked in which way they felt the lectures had helped them reach the course goals. However, they were unanimous in stating that they learnt very much during the Specialization Course. Some go as far as saying it was the most important part of the Programme. Others on the other hand find that some goals were met and others not quite. *"It would perhaps be difficult if one is to rate the Specialization Course, I wouldn't say that the specialization-course attained all the goals, but for sure it did cover issues pertaining to this. One would have liked to have more of a particular issue than the other... but maybe in that sense you become selfish in a way..."* (Interview C) It seems evident that many fellows have very specific goals, and are mindful of them. These measure the lectures according to whether they think they can use this information back home. From this point of view, one can expect that not all fellows will reach *all* their goals, but most will be aware of the fact that learning in a group requires a certain amount of compromise. This awareness can be enhanced by discussing goals openly with the fellows at the beginning stages of each section of the programme, as well as at the beginning of each content unit.

Methodological suggestions:

Buzz groups: A lecturer could start the first lecture by asking the fellows to form groups of three fellows, discuss between themselves what experience they have of the subject to be presented in their own country and then what they hope to learn from the lecture. After 5-10 minutes the lecturer asks the groups to recount what they discussed and what expectations they have. The lecturer can then decide in which way some hopes can be accommodated and which ones cannot be accommodated.

In this way the lecturer can quickly assess the level of prior knowledge in the group, what expectations the fellows have, and he/she can relate to the fellows in which way their expectations can be met or not. When you start a lecture like this you also help the learners to recall what they already know about a subject, making it easier to add new information.

Former fellows were asked whether they reached the goals of the Specialization Course. Some of them relate that they reached some or a satisfactory amount, but the majority

reached most or all the goals. Table 6 shows the answers from the online survey on whether the fellows reached the goals of the Specialization Courses. The fact that some fellows feel they did not reach all the goals might correspond with the feeling expressed by some of the lecturers

Table 6 The table shows how well the fellows who participated in the online-survey felt they achieved the goals of the Specialisation course

Did you reach the goals set by the programme with the final project?	Number of Respondents	Response Ratio
I reached a few of the goals	0	0,00%
I reached some of them	2	10,53%
I reached a satisfactory amount of the goals	2	10,53%
I reached most of the goals	11	57,89%
I reached all of the goals	4	21,05%

The interviewed lecturers saw the attainment of goals similarly, but from another point of view. Some mentioned that because of very different levels of knowledge and competence, the fellows reached the goals to very different levels. Some are very good students with a good foundation to build on, and thus manage to use the course to advance very far, while others lack both prior knowledge as well as the necessary academic competencies, and thus do not manage to reach all the goals.

We can thus conclude that in the eyes of the fellows, the Specialization Course was the part of the Programme where they learned the most, and that most of the official goals were reached through the lectures and site visits. Some fellows however experienced that they did not reach all their goals. This is partly because the subject matter they wished for was not covered, or not to the depth they would have hoped and partly because they themselves did not have (at least according to the lecturers) the prerequisites to reach them. The directors of the programme also address this problem of different level of competency.

7.4 How Satisfied are the Fellows?

On the level of learner reactions, it is quite evident, both from the evaluation forms used by the FTP, from the Interviews as well as the online survey, that the fellows are satisfied with the content of the Specialization Course. This table with data from the online survey is typical of the fellows' reactions to the course:

Table 7 Responses to the online-survey indicate satisfaction with the content with the content of the Specialisation course. Other sources support the results from the online-survey.

How satisfied were you with the content in the specialization course?	
Unsatisfied	0
Indifferent	0
Reasonably satisfied	2
Satisfied	13
Very satisfied	5

Most respondents are satisfied or very satisfied with the content of the Specialization Course. This corresponds with the discussion above indicating that these adult learners are very similar to other adult learners who seem to be more willing to learn when they find that the material is of immediate use to them. However, it might also be taken to indicate that the form of learning, i.e. in small groups, with close contact to their teachers, more practice and interaction also is of greater value to the learners. This point is vividly illustrated in many of the interviews where the fellows generally express great satisfaction with the teachers and their supervisors.

To illustrate this let us to compare these numbers with the numbers from the same question for the Introductory Course:

Table 8 Comparison of levels of satisfaction with the Introductory Course and the Specialisation Course expressed in the online-survey

	How satisfied were you with the content in the introductory course?		How satisfied were you with the content in the specialization course?	
	Number of Respondents	Response Ratio	Number of Respondents	Response Ratio
Unsatisfied	1	5,00%	0	0,00%
Indifferent	1	5,00%	0	0,00%
Reasonably satisfied	4	20,00%	2	10,00%
Satisfied	11	55,00%	13	65,00%
Very satisfied	3	15,00%	5	25,00%

Although most respondents are satisfied with both courses, there is greater distribution in the views towards the Introductory Course, and fewer are satisfied or very satisfied than with the Specialization Course. For further discussion on the Introductory Course, see the previous chapter.

7.5 How Relevant is the Specialization Course?

Many of the fellows are selected to come to Iceland based on what field the partners in the receiving country want to promote. People working within specific fields are thus invited to participate in the programme. This is also in accordance with the goals, which stipulate that the specialization course should meet immediate, specific needs in the recipient countries.

In view of this practice, it seems self-evident that if the programme is reasonably successful, the Specialization Course should be very successful. The fellows come already anxious to deepen their knowledge in their respective fields. We thus strove to discover both how relevant the fellows find the subject matters covered during the course itself, as well as how they view them after they return home:

Responses During the Course

The interviewed fellows all find that the Specialization Course met its content goals. They all find the subject matter interesting, practical and relevant to their home situation. One fellow mentioned that during the course the fellows were acquiring knowledge about regulations and "practical ways of doing things". After having learnt about theoretical frameworks and practical applications, they all gathered information about how these specific issues are regulated and handled in their home countries, thus actively connecting the principles they learned in Iceland to their local situation.

However one young fellow interviewed used the specialization course to widen her perspective, not to deepen her speciality. Coming from a scientific background, she decided to study the economics of fisheries, and thus gaining a broadened perspective on her field of expertise, an experience she found very stimulating and rewarding. We discovered this trait more often among the younger fellows than the older ones.

Responses In Retrospect

Former fellows were even more specific and articulate about the relevance of the Specialization Course to their situation at home. It is evident from their answers that many of the fellows have adopted the scientific framework of mind and practical methods which are of immediate use to them in their everyday work.

The specialization course was very relevant to my work at home, it permitted me to better use and understand the management tools in the management of fishing boats and companies and also to have a clear understanding of the relationship with other fields (feasibility studies, quality management of fisheries products, policy and planning, etc) (Online survey)

It provided the background knowledge for my job in preparing a national promotion and marketing campaign (Online survey)

One fellow found he could apply directly his newly acquired skills:

Having done the specialization course in Iceland I am now able to carry out proximate analysis in feedstuffs that are prepared by our institution and also pursuing some contaminants in our fish processing industries. Once in a month I go out to the fishing boats and take some swabs for microbiological work at my institution and when results are out I go back and advice the persons concerned. (Online survey)

It is quite clear that for those fellows who continue working in the same field, the knowledge and skills acquired during the Specialisation Course are of immediate relevance to them, and their respective institutions. It is worth noting that in important fields such as stock assessment a fishing nation may only have one specialist working in the field:

The Specialization Course was really very important and relevant for my work at home. I work for the Fisheries Research Institute, in charge of assessing fish stocks and recommending proposals for their rational utilisation. It has been very difficult for our Institute, because we lack people

specialised in this area: we have only one fisheries biologist, MSc. in Stock Assessment, who also studied and specialized in Iceland. Now, [that] I have learnt the basics, I have got some important skills in Stock Assessment and we are working together (with the fisheries biologist MSc in S.Ass.) in updating the assessments made, setting up the sampling plans, etc. (Online survey)

In cases such as this, the UNU-FTP seems to play a unique and vital part in building up competences in this field of expertise in the receiving countries. Through my interviews with the fellows, it also became apparent that for many of the fellows an opportunity to deepen their knowledge such as this one does not often avail itself.

7.6 Support to Self-directed Study

One of the aims of the UNU charter is to support fellows participating in its projects to become self-directed learners²⁴. This is also the aim of most educational programmes organized for adult learners. Many theories of adult learning argue that adult learners are “self-directed” learners and that one of the aims of all adult education should be to support them in their “self-directedness”, helping them to enhance their abilities as learners. It is thus of interest to check whether the FTP programme in any way supports the fellows to become more self-sustained learners. Here we can only rely on the present fellows’ ability to project themselves into the future and on the responses of the former fellows reporting on their present learning.

In the interviews, we specifically asked whether the fellows felt that the specialization course would help them to study further on their own. Their responses indicate that they feel it did, both because they have acquired new techniques, such as using the Internet for gathering information, as well as being more knowledgeable, and thus they know better where to look for further information, and what to look for. Some were already motivated to continue their studies to the next academic degree. This is also true for some of the former fellows, six respondents of 19 report that they are currently pursuing graduate study in their field or have concluded a degree (three answered “yes I am enrolled” one crossed the “yes: I have already finished...”) and two answered under “Other Responses”). Only one respondent claims not to have continued his/her studies in any way, while the others mainly continue studying on their own, and attending courses and conferences. This result is consistent with predictions built on theories on how adults prefer to learn. These state that most adults engage in a number of self-directed learning projects each year. Many theorists and practitioners in adult education find it important to support this kind of learning.

²⁴ Capacity Development... (2003)

Table 9 Most of the fellows who responded to the online survey have continued to study, both formally and in informal settings.

Have you in any way continued studies in your field after returning home?	Number of Respondents
No	1
Yes: Informal self-study	9
Yes: At courses and conferences	11
Yes: I am enrolled in a graduate course	3
Yes: I have already finished a degree after the FTP	1
Other Responses	4

These answers together with the answers from the Interviews indicate that the FTP does motivate the fellows to continue their studies in this field. This though is mainly an indirect *by-product* of the intensive learning process they encounter during this six-month period. The fellows mention factors such as increased knowledge they have acquired that makes it easier to find relevant material and familiarity with the Internet and online resources as reasons they expect the programme to spur further study on returning. The factors mentioned above can be classified as normal side-effects of study. We could cover this with a banal generalisation such as: People who study usually learn to study on their own and will probably continue to do so if they feel the need. But if the aim is to encourage, and spur continuous self-directed study, one should consider whether it is possible to train the fellows in using useful study techniques which could help them to continue on their own. During the Introductory Course, the fellows work intensively on their own to find information on fisheries in their home country preparing for their presentations. This serves as training too. This is definitely a set of tasks, which prepares the fellows for further self-directed study and should be continued and augmented. The directors, teachers and supervisors should consider supporting the fellows' self-study in a more direct way, for example by giving them assignments aimed at training specific learning strategies during the Introductory- and Specialization Courses.

8 The Final Project

Every fellow writes a Final Project under the supervision of a specialist in the field. At the beginning of the programme the fellows write their own personal goals for the FTP. These they discuss with the programme directors. Later they are coached in writing research proposals, and afterwards write their own proposals, usually based on a revision of the personal goals. The programme directors help the fellow to find a suitable supervisor according to the theme the fellow wishes to pursue. Final proposals are written under the guidance of the supervisors and presented at a seminar with all fellows in the same Specialisation Course. These final projects vary in topic and approach. Some are theoretical while others are practical. The main emphasis is that the topic has immediate relevance to the fellow and his/her local situation. After having completed the project, the fellows present their findings. The presentations are open to the public. Subsequently, the reports are made available on the web.

From the point of view of this evaluation it is of interest to determine how satisfied the fellows are with this part of the programme, how well they feel they are being served by the supervisors together with other aspects of support for the project, e.g. possibilities of site visits, access to data etc. Supervisors' points of view will also be studied and finally the impact of the final project: what the fellows think of it when they have returned and started working again.

The Role of Final Project in the Total Experience of the FTP

It is apparent, from both the interviews as well as the online survey that the final project plays a vital part in the fellows' total experience of the programme. Most interviewed fellows find the final project to be the most useful part of the programme, the part where everything came together, a concretization of what they learned. In addition to that, they find the report serves as a physical proof of what they learned.

Application of learnt subjects

The first apparent role the final project has for the fellows is to concretize, and wrap together what they find to be the most important things they learnt in the Programme.

The final project has consolidated the knowledge acquired on the introductory and specialization course. (Online survey)

In my opinion is the most important activity in FTP because I have the possibility to integrate all the skills I learnt in the courses. (Online survey)

The final project was the final goal of the course. In the final project, we used theoretically learned methods in core and specialization courses practically. Starting from project designing, implementation and evaluation, scientific writing and presentation. The final project indicated how we adopted the materials in core and specialization courses. (Online survey)

It allowed me to apply what I learned in the introductory and mainly in the specialization, course and it also allowed me to learn some other methods of work and to apply all that knowledge to my home country data. (Online survey)

The academic role

Another role stressed by some of the respondents is that the Final Project was an opportunity to grow academically. Working on the project gave them experience in research techniques and writing.

Improving skills in doing projects. (Online survey)

Reading - Getting information - data processing - give ideas - supervision (Online survey)

Increased understanding

Other fellows mention that the Final Project had the effect of increasing or deepening their understanding of the subject matter dealt with in the Introductory and Specialization Course.

The final project was more challenging and interesting as far as my work as a fisheries officer is concerned. It was exciting and overall it has broadened my understanding of shelf life of fish especially as it relates to safety and quality. (Online survey)

My final project played a big role in that I was made to read more and also to consult my supervisors whenever there was a challenging idea that I thought was of importance to the persons concerned after completion of the entire course. (Online survey)

The final project was very important. I deepened my understanding of the principles and applications of modern quality management system, HACCP and its pre-requisite programmes. (Online survey)

Although my project was about a specific type of fishery, the general principles for a successful fisheries management remain the same. More importantly, the final project awakened my planning and analytical capacity to [offer] critical analysis in fisheries policies and provides understandable advice. It has further enhanced my planning and management capacity. (Online survey)

A finishing point

Finally, although not all former fellows mention it explicitly, the final project together with the public presentations often functions as a finale to a long and strenuous working- and learning period. Such work, together with the public presentations seems to be very important for students in general. The pride they get from finishing a project like this often gives a graduate the additional boost he needs to apply what they learnt in real world situations. In view of general experience as well as psychological theories such as Gestalt theories people like to “close the circle”. The final project with its presentation has the role of a graduation from the programme. It would be interesting to see whether the organisation of the presentations would change if this point of view would receive more weight.

I see it like a final evaluation of the whole course. We are asked to demonstrate we reached the objectives of the Specialist Course.

(Online survey)

How Helpful is the Supervision?

The FTP has contacts with specialists in all fields of fisheries, both within the partner institutions, as well as in other institutions. They try to find supervisors for the fellows who are specialists in exactly the fields they want to study. They usually have success and find suitable supervisors for all the fellows.

In the interviews, the fellows usually expressed satisfaction with the cooperation with their supervisors. They generally experienced the relationship with their supervisor as friendly and supportive, and usually they learnt very much through their contact with the supervisor.

"It was also very important to be under the supervision of very experienced scientists in this field, from whom I learnt in every contact, in every conversation."

Many fellows even experienced that "world famous experts" went out of their way to interact on a "human level" with them even inviting them to their home or on excursions, something that evidently deeply impressed them.

However, some of the supervisors are very busy and thus sometimes had little time to support the fellows. This evidently affects to which depths a supervisor can go when supervising the project and reviewing the reports. Some supervisors studied the reports in

depth with the fellows, helping them revise their work from sentence to sentence while others mainly addressed the main ideas tackled in the projects. Some supervisors mentioned this in our interviews and in some instances; the fellows mentioned it – though sometimes only indirectly. One fellow pointed out that in his culture it is not acceptable to criticise another, especially not a superior, thus in the case when a supervisor is evidently not fulfilling his duty the directors need to be more proactive than in other cases because a fellow's culture might prevent him/her in acting.

Many fellows mentioned that their supervisors showed intensive interest in their projects, and in helping them to reach their goals, while a few complained that their supervisors showed rather little interest and had little time. Some fellows understood the lack of support to be cultural while others experienced it as individual. It is however clear that few supervisors participated in the editing process of the report. According to our knowledge, most supervisors would advise a fellow that his text needed revising but would not sit down and propose better ways of writing or help the fellow to find out why the argumentation in a passage was unconvincing or vague etc. This is something however the programme directors did. They often study drafts from the fellows in detail. Often in much more detail than the supervisors seem to be able to do, because of the abovementioned time constraints. For some fellows this is very important help, because they have little experience in writing in English and some are even new to the task of writing scientific texts.

Responses to our online survey reveal a similar picture: Asked whether the supervision was “professional and very helpful” 55% strongly agreed, 40% Agreed and one respondent strongly disagreed.

Some fellows' projects are of a practical nature, which requires many site visits to fish-factories, fish farms to the harbours etc. They sometimes need permission to do measurements at specific sites or gain access to very specialized data. Those fellows who mentioned such special needs related that in these situations they were always received very positively and met helpful people who helped them reach their goals.

Strengths and weaknesses of the supervision

Generally, we can thus say the fellows are happy with the supervision they received. Many fellows mentioned that compared with scholars in many other cultures, Icelandic scholars are very accessible to their students, allowing close informal contact with the fellows. This definitely affects the fellows' well-being and learning during the process. On the other hand, some fellows also mentioned that their supervisor was very busy, and had little time to support them with their work. Therefore, some of the main strengths mentioned by some of the fellows are matters other fellows found lacking in their supervisors.

The directors should consider deciding, or asking a group of supervisors to decide, what the programme expects from a supervisor and for added clarity, the supervisors should receive written guidelines explaining what is expected of them. (It might add weight to the guidelines were a group of supervisors and not the directors to write them.) These guidelines could include:

- How often should the supervisor meet the fellow at a minimum
- How proactive a supervisor should be in starting the working relationship

- What sort of support the fellow is entitled to
- Who supports the fellow in planning the work
- How to deal with urgent problems
- How to deal with sub standard work
- Are the supervisors expected to participate in the editing process of a report
(For more ideas see also: <http://www.npc.org.uk/page/1003801720>)

The directors should also consider whether they themselves spend most of their time during the last month or two of the programme to help some of the fellows with their writing process? (This question is pertinent to the question on academic prerequisites for entering the programme, see: below.)

Public presentation

After handing in the final project the fellows present their findings in front of their fellows, their supervisors, teachers and interested members of the public.

Each fellow has 30 minutes to present his/her findings and answer questions from the audience, their fellows, supervisors and the project directors. Thus with a cohort of 20+ fellows the presentations take up two – three working days.

The fellows had all prepared PowerPoint presentations for their presentation.

Understandably, the fellows' mastery of this technique was variable, but many had definitely learnt very much.

The presentations are in a way a celebration for the fellows as mentioned above (See the chapter: A finishing point)

For many it is a difficult task to stand in front of a group and present their own ideas or work. The FTP sees it as an important part of the programme to prepare the fellows for this. As mentioned above during the Introductory Course the fellows receive optional training in presentations and the use of presentation software, and they prepare and present five presentations. However, one could foresee that some small changes during the Specialization Course might be of value as well. Such as:

- Assign more small-group and individual projects, where the fellows present results to the group - sometimes only 3-5 minute presentations during the course.
- During these presentations as well as the earlier presentations, divide the audience into groups with different roles: e.g., one group should look out for positive aspects, another negative aspect and the third interesting or useful ones; practical or theoretical aspects; etc. This method could then be used during the final presentations as the fellows have become used to taking on such roles during presentations.
- Perhaps one should urge the fellows to print the slides of their final presentation as backup; there is always the possibility of something going wrong. This way they get used to this very useful precautionary step, they have a backup if the computers stop working, as well as the interesting side effect: they have the slides ready to use in another (more low-tech environment)
- Where as the UNU stresses the teaching - and - training role some of the fellows will and should get after returning, one might consider offering more voluntary competency courses on presentation, and training, also stressing low-tech methods.

Use of the Final Project at home

The fellows take a printed version of the Final project back home. The report is also posted on the Projects web site and entered into major fisheries databases. Many of the fellows find immediate use for their project, many mention that they use it to present the results of their stay in Iceland, additionally they either make direct practical use of the knowledge they acquired working on the project or use it as material for other projects, for lectures, articles etc. some of which even get published. Therefore, the physical printed report is something most of them can point to proudly. The surveyed fellows find it positive that the report is available online, some had even been contacted from abroad from people who wanted to cite their report, and this seemed to please them.

9 Impact:

The *raison d'être* of the programme lies in the impact hoped for in the fellows and the receiving country. Or in the changes it effects for the fellow in his/her work and then for the participating institution. In this chapter we will study the "... changes and effects positive and negative, planned and unforeseen of the project, seen in relation to target groups and others who are affected"²⁵

9.1 Impact on the fellows

As can be expected from any course, the participants learn. During their stay in Iceland, the fellows interviewed reveal that they feel that they have learned much during the stay. This can be clearly seen in the discussion above on the Introductory - and Specialization Courses. It is understandable that some feel they would have liked to learn some things in more depth, while skipping others. However, from our point of view it is also quite evident that both the programme directors as well as many of the lecturers are very open to adjust the programme to changing needs of the fellows as well as streamlining the courses to facilitate learning. On returning home, the fellows responding to our online survey or fellows interviewed when the programme directors visit their countries are unanimous in declaring that they feel they have learned much during their stay in Iceland. The fellows often mention increased competence in their specific job and a wider perspective on their field of work. Interviews with the fellows' superiors support this finding. As mentioned above the main goals of the course are exactly in these two fields: widening the fellows' perspective on their field of work and to help them increase their competencies within their own specific field.

²⁵ Knut Samset (1993)

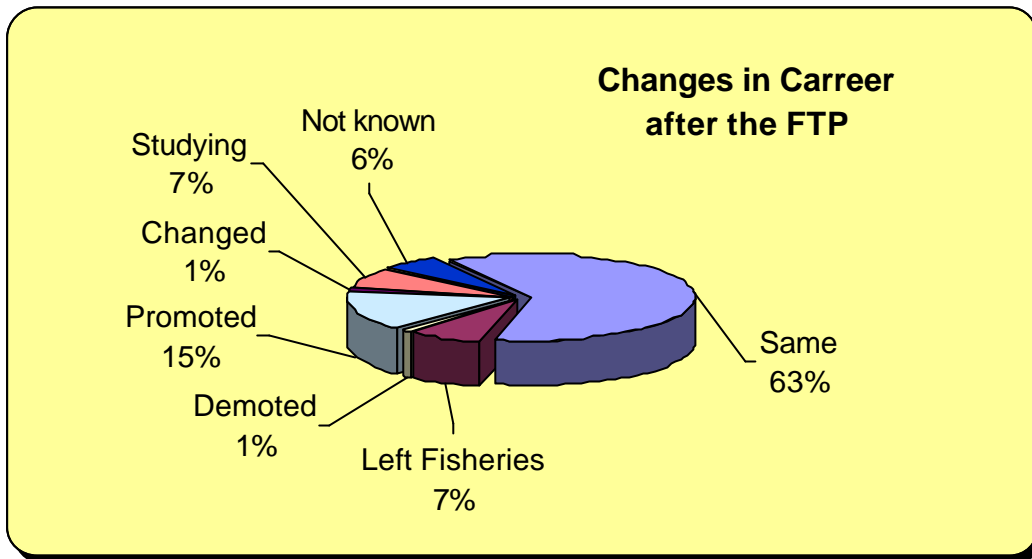


Figure 9 Changes in career of all the former fellows (status summer 2004 shortly after the last cohort returned home) if the newest cohort is excluded the percentage of people in the same job goes down to 57%.

The impact of participating in the programme is for many very positive. Fifteen of twenty respondents to the online survey relate that their stay in Iceland has had a positive impact on their career. Of these two, mention being promoted since returning. There is however a possibility that the respondents interpreted the question in different ways. The five fellows who say that it did not have any special impact on their career seem to be referring to whether the programme led to a promotion or not. Many of those who responded positively seem to be referring to their career in a more personal way. They mention that what they learned had a positive effect on their job experience in ways that include more contact with colleagues, greater capacity to tackle their jobs and being entrusted with projects that are more complex.

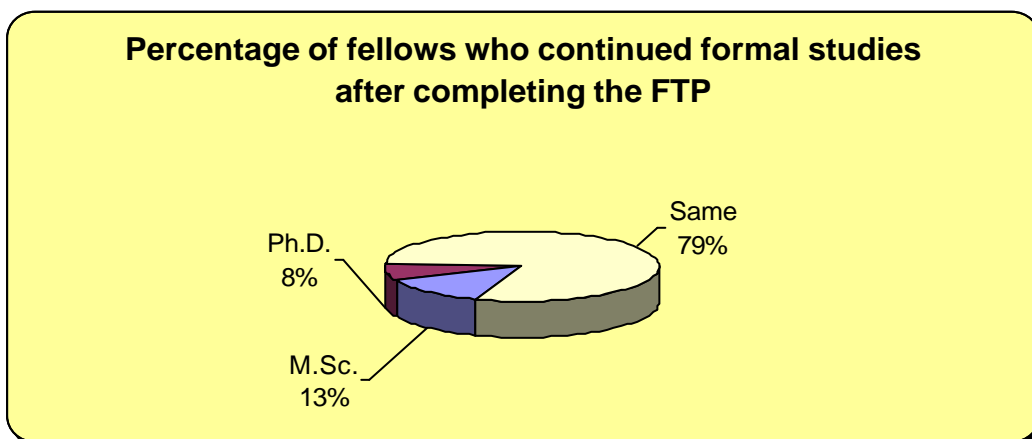


Figure 10 21% of the former fellows (1998-2002) have gone on and to study as full time students. 71% of these fellows had a BSc or equivalent, while 26% had a masters degree when they attended and 3% a doctorate.

The travel reports and a programme internal database on the fellows reveal that of 62 former fellows, 40 had a BSc. of these 13 (one third) have gone on to further studies thereof four on to doctoral studies. Two of the 18 who had a MSc. degree when

attending the course have continued on to a doctorate. One fellow who had a diploma has gone on and finished his BSc. We can thus conclude that 16 of 62 fellows continued formal degree studies after completing the FTP. According to the online survey, approximately half the fellows continued informal studies or visit conferences to further their knowledge. A director of a cooperating institution stressed in an interview that although some of the fellows have not been promoted as a consequence of their participation in the programme, this does not mean the programme was not useful for the fellows in question. Most fellows are sent to participate in the programme in order to become better at their *present* jobs. Our evidence thus certainly indicates that the programme's impact on the fellows' jobs is positive. Both fellows and their superiors state that they have become better at their jobs. In addition to this ca. 20% are promoted after completing the programme and ca. 25% further their formal studies, while around half continue learning in an informal way.

Our data does not allow us to draw a clear picture of the programme's impact on the receiving institutes. Leaders in cooperating institutions did not respond to our online survey and only to repeated reminders from the staff of the FTP a few responded. A few were thus interviewed on the telephone. In order to be able to argue with any certainty about the programmes impact on the receiving institutions it would be necessary to visit them and interview both people within the institutions as well as knowledgeable outside observers. However together with data acquired through the programme directors' travel reports, the information we do have does give relatively consistent indications, enough to estimate the impact participation in the FTP programme has on the receiving organisations.

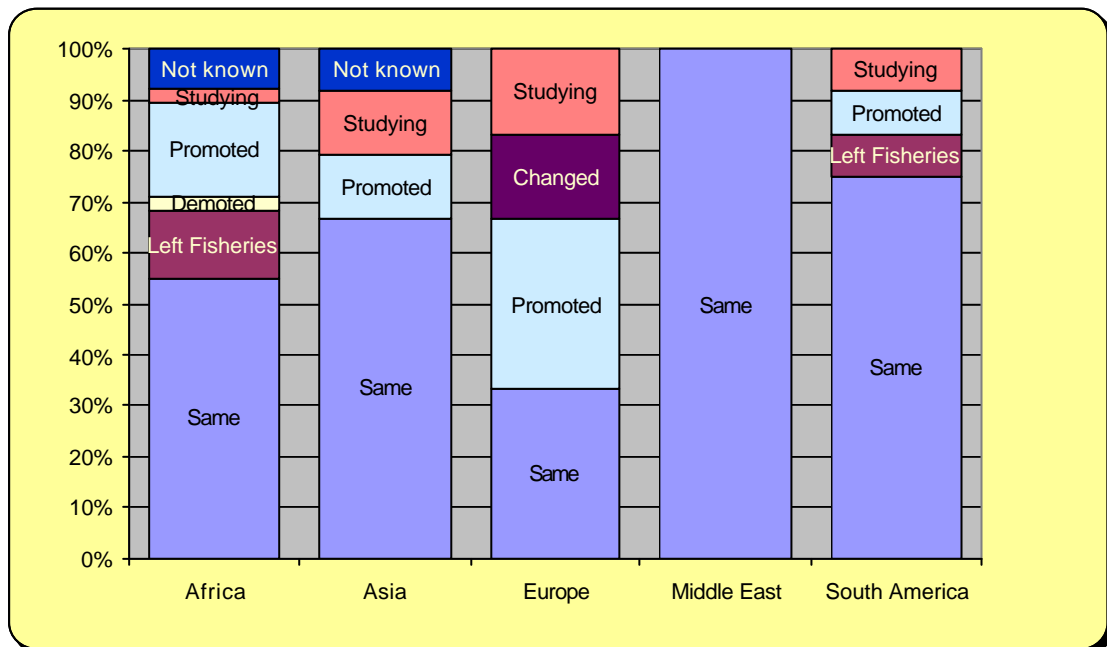


Figure 11 Changes in career arranged according to the fellows continent of origin.

According to the programme directors, as well as annual reports and in accordance with UNU guidelines, the UNU-FTP has emphasised inviting fellows from Africa, as well as aiming at building up teams in a few countries and localities. The programme has thus for

example emphasised inviting fellows from countries exploiting fish in Lake Victoria, Lake Malawi and along the south, and southeast coast of Africa. (See discussion above.)

Most of the Travel reports contain some responses from leaders of cooperating institutions as well as former fellows. The responses reported are unanimously positive. The cooperating institutions express interest in continued cooperation, and some stress their need for trained officers. All the leaders contacted express that they are content with the cooperation and find that the fellows return more competent to their jobs. Most graphic are changes in reactions, when the programme directors were received with scepticism during their first visits to a country but with great enthusiasm after the first group of fellows from the country has returned and settled in. Long-time partners such as Kenya also express content with the programme, and explain that they see a greater difference in fellows returning from Iceland than from other countries. Our respondent saw it as a result of having studied at a course, which was specifically built around the fellows' specialisation, interests and tasks at home. As mentioned above some Icelandic lecturers also like to attribute this to the atmosphere in the Icelandic institutions, which seems to have a greater "entrepreneurial" character than one can expect to find in institutions in bigger countries.

In China the FTP has only had fellows from Dalian Fisheries University. According to the latest travel-report from China, a leader at the University "emphasized the importance of the cooperation between the DFU and the UNU-FTP. The training that UNU-FTP has offered the staff so far, has been very good and valuable for the DFU, and he could see many good signs in their professional work that can be attributed to the training at the UNU-FTP". The fact that already six fellows have come from the same institution is interesting in it self, and calls for a closer study of the impact. What strikes the eye is that two fellows have been promoted and two have travelled abroad to finish their next academic degrees: M.Sc. and Ph.D. respectively. They also report that some of the final projects these fellows wrote during the programme have reached the attention of a wider audience in China and have come to good use. This can be taken to indicate that the FTP has a positive impact on a receiving institution.

According to the travel reports the UNU-FTP is seen as strengthening the work of the Icelandic International Development Agency in the countries where ICEIDA is active.

One problem concerning impact and especially sustainability of development projects such as this is political instability in the receiving countries. Travel reports from Cape Verde, South Africa and Namibia recount that some of the fellows have not been able to return to their posts after completing the programme or institutions have been totally rearranged resulting in changes in situations which sometimes lead them to leave the field. This is definitely something that can be reckoned with in developing countries, but the current policy of inviting professionals from few countries and from connected institutions both locally and regionally might be a way of increasing the likelihood of the accumulated knowledge and competence having a lasting impact in the region.

9.2 Unforeseen Impact

In some country reports there is talk of awakened interest in the programme among colleagues of former fellows. Thus the way former fellows talk about their stay in Iceland, and possibly the effect it has on their job seems to spur interest among colleagues to further their own studies, possibly in at the FTP as well.

The effect participation in the programme has on institutions and lecturers in Iceland, is also interesting. Specialists lecturing and supervising at the FTP often have to rethink their knowledge and compare it with situations with which they are not familiar. Stock assessment professionals, for example, who are used to study the development of stock sizes in oceans, seem to use different methods and paradigms in their work than professionals studying stock in closed systems, such as lakes. However, these two disciplines seem to be able to profit from increased interaction.

9.3 Emerging Needs

Short courses and In-site courses: The travel reports mention increased demand for short courses, in-site courses for institution staff or even short university courses held by Icelandic experts. This has been mentioned earlier, and seems to be a logical extension of the services of the UNU-FTP²⁶. But projects such as these carry greatly increased expenses. The UNU-FTP might also consider organising International conferences on fisheries in partner countries, allowing professionals in some of the local areas they have been supporting for some years to gather, network, exchange experiences as well as gaining new insights from scholars of international calibre. This might in turn support efforts of former fellows to facilitate change in their local settings.

Follow up: The aims of the FTP are that the fellows *learn*. Revision is universally considered an essential element of learning. It would therefore be worthwhile for the programme to consider ways of offering follow up, review and discussion possibilities for their fellows. One might even consider offering on-line courses for university credit as follow up. See below.

Additional MSc degree: For some fellows it might be of interest to be able to continue studies in Iceland to complete a Masters degree in fishing, especially in view of the fact that some find it difficult to obtain scholarships and funding to travel for further studies a few years after returning from the FTP. Discussions with the University of Iceland have not been fruitful as yet. A first step in this direction might however be assigning credit-units to the programme. These should then be credit-units which would be accepted by other universities internationally.

Credit-units for FTP: Some fellows have mentioned the possibility of assigning credit-units to the FTP in order to make it easier for fellows to have their participation in the programme assessed for further studies at other universities. A former fellow has had the programme evaluated as 12 credit-units towards a 60 credit-unit M.Sc. at the University of Iceland.

²⁶ cf. Ingólfsson & Haralz 2003 p. 16 and 69f.

Contact with Alumni: It is both a requirement from the UNU, as well as a request from former fellows that the FTP should create a structure for continued support for alumni. An online journal and forum might be a starting point. The programme might also consider recording guest lectures and posting them on the internet for the benefit of alumni and others interested. Creating an on-line community for and with the alumni should be considered beneficial for the former fellows as well as present fellows, lecturers and staff. This might also have a promotional value for the programme. The programme web could serve both as a tool for present fellows as well as for alumni. In this way the fellows learn to use the web and participate in an on-line community from the beginning.

10 Sustainability

The sustainability of a development programme is one of the vital questions to ask during an evaluation. Pressing are questions such as: Will the benefits of the project continue after the support is withdrawn? Does the target group have motivation and resources to carry on? Will the effects hoped for continue in the participating institutions? Can the aims be reached and the goals attained?

The UNU-FTP is not a development programme where external resources enter a country to develop a specific area and then leave. It works the other way round. People leave their local situation to obtain knowledge, training and motivation at a foreign location in order to work differently at home. The aims of the programme are to build up capacity within a local population so that they can interpret the new knowledge and experience in ways that can be useful in their home situation, but not to bring in specialists who have to learn the special needs of the receiving culture, and interpret their knowledge into a foreign culture.

For such a strategy to be fruitful, the fellows who participate in the programme have to be capable of learning, willing to change and to take on leadership roles in order to change the ways things are done back home. It is worth while to consider whether a fellow who writes a brilliant final project, but does not apply what he/she learned in the home situation, or even cannot because he/she cannot return to work for the institution sponsoring his/her stay in Iceland, can be considered successful participant in the programme.

The UNU-FTP has only been active for six years with 84 fellows from 20 countries graduating. This small pool of fellows spread over many countries makes it difficult to assess the sustainability or results of the programme in the receiving countries. However, there are indicators which could be used, both direct and indirect. Some built on what happens in the receiving countries, some on how the training in Iceland takes place.

From the viewpoint of what happens in the receiving countries one can consider answers to the following questions:

- do the fellows stay at the same institution after completing the programme?
- do the fellows stay in fisheries?
- do the fellows get promoted some time after completing the programme?
- do the fellows continue their studies?

- does the institution want to continue cooperation with the FTP?
- do other institutions ask for cooperation?
- do superiors find the fellows' input valuable?
- do the institutions have enough suitable candidates for the programme?
- do the fellows create the pool of expertise the FTP hopes for?
- do the fellows know how to work in groups and to motivate colleagues to cooperate with them on projects?

Data pertinent to some of these questions is presented in the discussion on impact, above. However a summary of results from a different point of view is in order here.

Our data²⁷ shows that most fellows return to their situations after finishing the programme and stay in the same job for some time (at least 62%). The online survey indicates that, three quarters of the fellows find that their situation improved either in quality or status. Of thirty-seven fellows the programme directors gathered information about in their visits, twenty seven had experienced changes in their situations, and thereof a reasonable number of fellows are promoted soon after their participation in the programme. Only one had been demoted in status. From this it seems evident that whether we consider the formal situation or the contents of the work, most fellows find their situation to be better after participating in the programme. It should be safe to conclude that this should have a positive impact on the institution. Whether this impact is sustained can be affected by too many factors to be predicted with any certainty. However, continuity in leadership and policy, together with a general increase in the level of education within the institution should be seen as vital factors to sustain the positive changes that participation in the FTP has on an institution.

A vital factor for sustained effects of the programme is expressed in the goals of the Capacity Development “enhancing of capabilities for self-sustained learning, for the generation of new knowledge or technology, or for their application.” According to the programme database at least 25% of the fellows continue formal studies soon after returning home, while at least half the respondents to the online survey report that they continue informal study and/or participation in conferences. Research in adult education indicates that the more education someone has the more inclined he/she is to study further, both in formal settings as well as in self-directed learning projects. It would therefore be safe to predict that if the programme has an effect in spurring the fellows to go on to further formal studies; it should also do so for informal learning projects. The online-survey supports this view. It would however be wise for the organizers of the programme (directors, lecturers and supervisors) to implement further elements of study which strengthen the fellows' abilities to study on their own, and to embark on self-directed learning projects²⁸.

The programme directors' interviews with leaders of the participating organisations indicate that most leaders of participating institutions express satisfaction with the cooperation with the UNU-FTP and many express an interest in developing and even

²⁷ Project internal database

²⁸ This is also mentioned above in the chapter on impact

increasing cooperation with the programme. In the travel reports many superiors express satisfaction with the professional input of the fellows. Our telephone interviews with the leaders point in the same direction. Such unanimous interest within the participating institutions can easily be interpreted as indicating that the effects of the programme should continue for some time. This is however probably built on the contacts the programme has established in the respective countries. The programme directors should be careful to create a broad base of contacts when they visit the participating nations, in order to increase the likelihood of continued contact if and when leaders change posts and political measures lead to changes in institutions. It is clear that the best advocates for a programme like this one are the actual fellows who have participated; one should however not underestimate the effects of politics. It might also be prudent to consider sending a newsletter regularly (once or twice a year) to contacts and stakeholders in participating countries, thus supporting the credibility it has established and keeping the programme alive in their minds.

The UNU-FTP is considered an in-service programme at a graduate level. This implies that the fellows need to have a minimum of a first university degree to be able to benefit from the programme. According to the programme database 59% of the fellows have a first university degree or the equivalent, the others a 2nd or 3rd degree. However, through our interviews with the staff and faculty of the programme it became evident that the educational level of the participants is very variable. Some lecturers and supervisors have found this disturbing, because some fellows did not have the academic training necessary to write the final project without considerable help. For some this seemed to be their first experience of independent study and creative work. It is evident that the academic levels of universities in general are different and experience also dictates that many students need more than a 1st university degree to master basic academic skills.

One can thus argue that to increase impact and sustainability of the programme the directors might want to require specific basic academic skills, and find ways of screening candidates for these skills. According to our interviews these skills should be essay writing and critical, independent thinking. In western universities independent and critical thinking are considered basic academic tools of thought. A student's mastery of these tools usually becomes apparent in his/her essays and participation in discussions. However, for some, independent and critical thinking is not part of their local (university) culture, so their first contact with this way of working will evidently be in the first western country they study. The lecturers and supervisors relate that some students seem to be used to having only to reproduce the knowledge they encounter in scholarly literature but not criticizing it or questioning its premises and not at all to form their own individual opinions. Thus studying in a western university context they are confronted with a different way of thinking, which incidentally is considered the foundation of the academic culture. When teaching students from developing countries at a university level, one might thus regard it as part and parcel of offering a graduate programme for people coming from these respective cultures to teach them these skills.

A prerequisite for an institution to be able to participate in the programme is that enough of its staff members have the necessary academic background. For some this seems to be

a problem, where there is no fisheries programme at a local university. This can withhold the impact the FTP could have on an institution and the sustainability of this impact. And if not enough candidates are found to participate; the effect of building up a group of fellows with a common background does not come to be.

From the point of view of what we have observed during the programme, there are some elements which could affect the sustainability of the programme:

- Are the fellows supported in self-directed study?
- Do the fellows learn to locate and use important resources?
- Do the fellows build collegial relationships which they are likely to sustain after returning home?
- How does the programme support the fellows after they leave Iceland?
- Are the fellows trained in any way to become leaders, trainers, or agents of change?

Many of the activities during the Introductory Course (as mentioned above) lead the fellows to look for and use relevant resources of all types. This continues during the Specialization Course, and especially the final project. At the Institute the fellows have access to many resources and are encouraged and in some cases trained to use them. However, both the directors and not least the lecturers might consider giving the fellows assignments with the goal in mind that they learn skills which make it easier for them later to embark on self-directed learning projects both on their own as well as with groups. Some such elements *are* built into the programme; perhaps one should consider connecting the dots, because for some students the obvious often eludes attention.

Frequent group projects with different partners, with built in different methods for working might train the fellows in using methods which they could use when they return. This is also something which should be considered in the Specialization Course, where a small group works together for one month in order to train the fellows in working in teams and even work with a remote group. The Specialization Course might be set up as a large project which the fellows work on together being accountable to one-another for summaries, literature references, interpretations etc. Use of internal asynchronous discussion threads during the programme could be a way of training the fellows in the use of such technologies, which in turn could be part of a support system for alumni.

From the travel reports it is evident that the directors try to meet former fellows when they visit their countries. However the nature and extent of support to the alumni should be studied in view of the programme aims and goals. What kind of support if any would be likely to increase the impact of the programme, and secure its sustainability? The UNU paper on Capacity Development calls for “Channels for regular communication with programme alumni”²⁹ to be established. This could be a way of supporting the alumni in their jobs, and continued studies, and thus increasing the programmes sustainability. As mentioned earlier some partner institutions have asked for in-site courses held by the FTP. If such courses can be arranged, they might also be part of a way of supporting alumni. In view of the “regional-emphasis” the programme has been practicing the

²⁹ Capacity Development 2002, p. 6

directors might consider local conferences for alumni and their colleagues every 2-3 years. The FTP might for example co-sponsor regional mini-conferences in the Lake-Victoria district, the African southern coast and in Asia. To these conferences, one might invite both experts from Iceland, and elsewhere as well as creating a forum for the alumni. Papers from these conferences could be hosted on a FTP web, creating in time a knowledgebase for fellows and others in the field.

10.1 How to deal with increased demand

In recent years the UNU-FTP has become better known around the world and the directors report increased demand for places on the programme. Understandably questions about the policy for choosing partners arise when they are demanded: “Why do you not invite candidates from region X or country Y? This increased demand could be considered as an invitation to revisit the policies. If this is done due attention should be given to the possible effects a new policy would have on the sustainability of the programmes impact in certain areas. From the beginning of the programme it has been operated under a “regional-emphasis” emphasising certain areas with the aim of building up “a critical level of expertise” in a specific region. To date these have been the countries around Lake Victoria, Lake Malawi and the countries around the southern coast of Africa. In addition all six fellows from China have come from the same University. The effect of building up a level of expertise in these regions has hardly had enough time to establish itself. It would thus be unwise to abort this policy so soon. The opposite should be considered: Ways of supporting these groups might be, among other possibilities, regional conferences as mentioned above.

11 Conclusion

11.1 Relevance

In a world with ailing fish stocks in the seas and where many countries do not manage to exploit their resources to benefit their present and future inhabitants it seems obvious that a programme such as the UNU-FTP is relevant. This is also supported by increased demand for places in the programme. This type of developmental assistance also seems a responsible way to allow others to benefit from the unique situation in Iceland, where state-of-the-art technology a thriving fishing industry and large numbers of highly qualified experts in the field come together in a small accessible society.

11.2 Effectiveness and efficiency

The abovementioned resources can be judged to be used efficiently and effectively to the end of educating the fellows who visit our country for six months and participate in the Fisheries Training Programme. The structure of the programme manages to exploit the resources effectively. This is shown both by the positive responses from fellows and their superiors. However, in order to manage these resources more efficiently, more interactive teaching methods need to be used by lecturers and staff.

11.3 Impact and sustainability

It seems quiet clear in as much as we can judge from a distance, that the impact on the receiving institutions is positive. They receive a motivated and more capable staff after their studies at the FTP. In order to increase the impact, and prolong the sustainable effect of the programme one should consider incorporating learning techniques which train the fellows more consequently in self-directed study, group-work, leadership and training. In view of the short period of time the fellows are in Iceland and the considerable amount of material they need to cover, it is suggested that these techniques be incorporated into what is already being done, and not added as instructional themes.

12 Recommendations

A few of the recommendation which appear in the text will be repeated here for the sake of clarity.

- The directors should consider helping the fellows to get to know each other faster and more intensely at the beginning in order to create a learning community right at the beginning of the programme.

- The directors might consider shortening the Introductory Course, but complaints about a long course might also be quelled by:

- Consider urging the lecturers to use more interactive teaching methods and group work
- Group work could also be initiated by the director who could facilitate it them selves, or gradually assign the facilitation to the fellows – thus helping them to learn to lead groups.

- Course evaluations could be reorganised in order to increase their accuracy

- The fellows should get more training in presenting information for groups. Also incorporating low-tech methods. (Also this need not cost extra time)

- During visits hosts might consider splitting the group

- In order to support the Alumni (according to UNU recommendations) the programme might consider creating an on-line community. One should consider incorporating on-line learning methods into the programme, and thus helping the fellows get acquainted with such ways of working.

- Lecturers might consider activating the fellows at the beginning of a lecture (learning module) to reflect on what they know about the topic and discuss what they want to learn about it. Thus laying expectations bare and being able to work with them.

- The role of supervisors and the directors in supporting the fellows during the writing process needs to be considered and discussed.

- The question of academic requirements for candidates should also be considered. A fellow who does not qualify, does not gain what he/she could from the programme, and thus one could consider that the resources were not managed in an efficient way when fellows are invited who do not master the required academic skills.

- It should be considered whether local conferences or in-house courses exported to the receiving countries can be seen as methods to increase and support the sustainability of the programme.

13 References

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14 Appendixes

14.1 Appendix 1: Record of Evaluation Activities

Date	Activity and partners in the activities
27.8.2003	First meeting with managers (<i>Tumi Tomasson and Thor H. Asgeirsson</i>)
18.9.2003	Signing Terms of Reference
28.11.2003	Meeting with managers
4.12.2003	Interview fellows (<i>Mehdi Shakouri, Zeng QingZhu, Alfredo Emmanuel Vázquez Olivares, Andreas Penda Ithindi</i>)
17.12.2003	Present and discuss interim report with managers
26.1.2004	Meeting with managers
5.2.2004	Interview fellows (<i>Marisa Kashorte, Mohamad Zawahid Shamsuddin, Monica Achieng Owili, Els Ulman-Kuuskman, Edgar Edmundo Lanz Sánchez</i>)
10.2.2004	Interview with focusgroup from Reykjavik (<i>Hannes Ulmas, Parmanand Daby, Raphael Lopez, Jorge Faife, Tobias Nambala, Irena Prokopchuk</i>)
12.2.2004	Observe fellow presentations of final projects
13.2.2004	Observe fellow presentations of final projects
19.2.2004	Interview fellows who stayed in Akureyri (<i>Madelin de Arazoza, Merje Frey, Ngyen Tien Thom, Alberth Possinger Samakupa</i>),
9.3.2004	Meeting with managers
11.5.2004	Telephone Interview: (<i>Gísli Víkingsson MRI</i>)
19.5.2004	Telephone Interviews with Lecturers (<i>Heiða Pálmadóttir; IFL, Gunnar Stefánsson; MRI, Lárus Pálmason; Teacher in Trade school, Guðrún Ólafsdóttir; IFL</i>)
21.5.2004	Meeting with managers to discuss second part
28.5.2004	Meeting with managers to discuss third part
10.6.2004	Telephone Interview with directors in partner companies in Kenya & China (<i>Mr. Joseph Ogunja; Assistant Director of KMFIRI research station in Kisumu and Mr. Li Hongming; President of Dalian Fisheries University</i>)
15.6.2005	Meeting with directors
16.8.2004	Telephone interview Lecturer (<i>Eyjólfur Guðmundsson UNAK</i>)
12.9.2004	Deliver summary of report to directors
15.11.2004	Final draft presented and discussed with board

14.2 Appendix 2: Terms of Reference

TERMS OF REFERENCE FOR AN EVALUATION OF THE UNITED NATIONS UNIVERSITY FISHERIES TRAINING PROGRAMME IN ICELAND

Project background

In 1998 the Fisheries Training Programme (FTP) of the United Nations University (UNU) was established at the Marine Research Institute in Reykjavík, Iceland. Since its establishment 62 specialists have completed the full 6 month training offered by the programme, which generally has received very favourable feedback both from fellows and observers. Now, after five years, the managers of the programme find it necessary to stand back and evaluate the programme. There is a need to determine:

- ☞ whether the programme meets its goals
- ☞ whether the teaching methods are as good as they could be
- ☞ whether there are areas where the programme needs to be changed
- ☞ what impact the program has when the fellows return home.

Reasons for the evaluation

The evaluation is being undertaken at the request of UNU-FTP. The programme managers would like an external evaluator to compare what they are doing with their goals and with common knowledge and mainstream ideas within the field of adult and continuing education. The UNU/FTP is mostly funded through Iceland's contribution to development assistance and the evaluation of the programme should also be considered in this context. How does it meet general Icelandic goals of development assistance?

Scope and focus of the evaluation

The evaluation will focus on providing relevant information for decision-makers in Iceland, as well as at the UNU headquarters and other UNU Programmes. It is also intended as a learning process for managers and staff at the UNU/FTP.

The evaluation will consider the goal and purpose of the programme, as well as inputs and outputs. In addition the evaluation will consider unintended outcomes.

Information collected will be both qualitative and quantitative. After preparation by the evaluator the methodology of the evaluation will include:

- ☞ interviews with key informants, staff, board members, present and past fellows
- ☞ analysis of course evaluations
- ☞ analysis of documents related to the teaching, training and supervision of the fellows, mainly those produced during the project but also relevant older material
- ☞ collection of other information pertinent to the training offered by the FTP

Drafts of the report will be prepared, presented and discussed during the evaluation period in order to facilitate discussions on sections of the report, thus increasing the reliability and validity of the information presented in the report and facilitating the learning process. The final draft will then be submitted to the board of the UNU/FTP.

Issues covered in the evaluation

Issues of relevance, efficiency, effectiveness, impact and sustainability will be considered.

- Relevance:** Are the objectives worthwhile? Does the design of the project support the objectives?
- Efficiency:** Has there been an efficient use of resources in the project? What problems have arisen?
- Effectiveness:** Has the project achieved its objectives? What has facilitated or prevented the effectiveness?
- Impact:** What are the positive and negative effects of the project? What are their causes?
- Sustainability:** What benefits of the project continue into the organisations the fellows return to after the programme?

Attention will mainly be given to matters concerning teaching, training and supervision of the fellows. The design of the program, rules, methods of teaching and training will be considered and compared with accepted practices and mainstream theories within the field of adult education and professional development.

The evaluation will be sensitive to unintended outcomes of the project.

The evaluator will seek the involvement of the staff of the FTP and project participants during the evaluation in order to support the learning process which such a project seeks to develop.

Timetable and Reporting

Preparation for the evaluation will begin in September 2003. Field work will be carried out in September 2003 - February 2004.

Drafts will be presented and discussed in November, January and March.

The final report will be submitted to the board in April 2004.

Budget

The total cost of the evaluation will not exceed 900 000 IKR, which will be paid in three installments. The Research Centre of the Iceland University of Education will appoint an evaluator who will work in consultation with experts with experience in development work.

Reykjavík September 2003

on behalf of UNU/FTP
IUE Research Centre

on behalf o f

14.3 Appendix 3. The Programme of the Introductory Course

Place	Date	Time	Activity	People/Lecturers	Type
Reykjavík	29.ágú		Fellows arrive, settling into apartments.	Thor and Tumi	Orientation
Reykjavík	29.ágú		Getting around in Reykjavík		Orientation
Reykjavík	1.sep	09:00-16:00	Health clinic, bank business, residence permit. Introduction to MRI and IFL	Thor and Tumi	Orientation
	2.sep				
Reykjavík	3.sep	09:00-09:15	1. Johann Sigurjónsson, the MRI director and the chairman of the UNU/FTP board welcomes fellows	Johann Sigurjónsson	Lecture
Reykjavík	3.sep	13:00-15:00	2. Icelandic Fisheries	Petur Bjarnason	Lecture
Reykjavík	3.sep	15:00-17	3. World Fisheries	Dr. Alda Möller	Lecture
Reykjavík	3.sep	09:15-12:00	Introduction to computer systems, e-mails and internet. Work rules at MRI	Thor	Practical course
Reykjavík	4.sep	09:00-11:00	3. World Fisheries	Dr. Alda Möller	Lecture
Reykjavík	4.sep				
Reykjavík	5.sep	13:00-15:00	4. World trade of fish and fish products	Thorgeir Palsson	Lecture
Reykjavík	5.sep	08:00-18:00	5. World Aquaculture: lectures and site visit: selective breeding, abalone, turbot, char/salmon	Dr. Julius B. Kristinsson	Lecture
Reykjavík	6.sep	09:00-12:00	Using computers: Word, Excel, PowerPoint, e-mail, (Optional)	Thor	Practical course
Reykjavík	6.sep	13:00-16:00	Graphics: Digital camera, pictures in document, posters, editing pictures (optional)	Thor	Practical course
Reykjavík	6.sep	19:00	<i>Get-together and supper on Sat. evening</i>	Tumi	social evening
Reykjavík	7.sep	09:00-12:00	6. Data bases: FAO fisheries statistics and	Thor	Lecture
Reykjavík	7.sep		7. Fish base	Thor	Lecture
Reykjavík	7.sep	13:00-16:00	Oral presentation	Thor	Practical course
Reykjavík	8.sep	09:00-11:00	8. Shellfish biology and world fisheries	Hrafnkell Eiriksson	Lecture
Reykjavík	8.sep	11:00-14:00	9. Sea birds and their role in the marine ecosystem exploitation	Dr. Kristján Lilliendahl	Lecture
Reykjavík	8.sep	14:00-16:00	10. Marine mammals and their role in the ecosystem exploitation	Gisli Víkingsson	Lecture
Reykjavík	9.sep	09:00	**Fellows presentation 1: fisheries and/or aquaculture in the fellows' home country	Thor and Tumi	Fellow's presentations
Reykjavík	9.sep	13:00-15:00	11. International agreements on environmental protection	Hugi Olafsson	Lecture
Reykjavík	10.sep	09:00-12:00	12. Environmental Impact and Coastal Zone Management	Geir Oddsson	Lecture
Reykjavík	10.sep	14:00-16:00	13. Aquatic pollution, sources and distribution	Gudjon A. Audunsson	Lecture
Reykjavík	11.sep	09:00-12:00	14. Zooplankton and marine food webs	Dr. Olafur Astthorsson	Lecture
Reykjavík	11.sep	13:00-16:00	15. Oceanography, primary and secondary production	Dr. Steingrímur Jonsson	Lecture

Place	Date	Time	Activity	People/Lecturers	Type
Reykjavík	12.sep	09:00-16:00	16. Fish biology	Tumi Tomasson	Lecture
Reykjavík	12.sep		16. Fish biology	Tumi Tomasson	Lecture
Reykjavík	15.sep	09:00-12:00	17. Fishing Technology	Einar Hreinsson	Lecture
Reykjavík	15.sep	13:00-17:00	a. Visit to Hampidjan: fishing gear manufactory	Einar Hreinsson	visit
Reykjavík	16.sep	08:00-10:00	18. The effect of fishing gear on the aquatic environmentFishing technology	Dr. Stefan Aki Ragnars.	Lecture
Reykjavík	16.sep	10:00-12:00	19. Fish biology	Tumi	Lecture
Reykjavík	16.sep	13:00-16:00	a. Trip at sea on a research vessel	Tumi, Thor and Einar	visit
Reykjavík	17.sep	08:00-12:00	Fellows' presentation 2: on fishing and environmental issues in the home country, or fish biology	Tumi, Thor	Fellow's presentations
Reykjavík	17.sep	13:00-17:00	Fellows prepare for their afternoon presentation		Studytime
Reykjavík	18.sep		20. Quality management of fish.	IFL staff	Lecture
Reykjavík	18.sep		a. ****Visit to Marel and other processing companies	IFL staff	visit
Reykjavík	18.sep		a. ****Visit to Marel and other processing companies	IFL staff	visit
Reykjavík	19.sep		a. ****Visit to Marel and other processing companies	IFL staff	visit
Reykjavík	19.sep		a. ****Visit to Marel and other processing companies	IFL staff	visit
Reykjavík	20.sep				Lecture
Reykjavík	20.sep		a. ****Visit to Marel and other processing companies	Tumi and Thor	visit
Reykjavík	23.sep		Presentation 3: Fellows introduce fish processing in their home country		Fellow's presentations
Reykjavík	23.sep			IFL staff	Lecture
Akureyri	25.sep		Trip to Akureyri, north Iceland	Tumi and Thor	Travel
Akureyri	25.sep				Travel
Akureyri	26.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture
Akureyri	26.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	visit
Akureyri	27.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture
Akureyri	27.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	visit
Akureyri	28.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture
Akureyri	28.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	visit
Akureyri	29.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture
Akureyri	29.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	visit
Akureyri	30.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture
Akureyri	30.sep		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	visit
Akureyri	1.okt		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture

Place	Date	Time	Activity	People/Lecturers	Type
Akureyri	1.okt		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	visit
Akureyri	2.okt		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture
Akureyri	2.okt		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	visit
Akureyri	3.okt		Presentation 4: Fellows reflect on the private sector developments in their country	Tumi and Thor	Fellow's presentations
Akureyri	3.okt		21. Management of Fisheries Companies and Marketing, company visits, Icelandic nature	University of Akureyri	Lecture
Akureyri	4.okt		Trip back to Reykjavik		Travel
Akureyri	4.okt		Trip back to Reykjavik		Travel
Reykjavik	6.okt	09:00	22. Stock Assessment	Bjorn Ævarr Steinarsson	Lecture
Reykjavik	6.okt		22. Stock Assessment	Bjorn Ævarr Steinarsson	Lecture
Reykjavik	7.okt		22. Stock Assessment	Bjorn Ævarr Steinarsson	Lecture
Reykjavik	7.okt		22. Stock Assessment	Bjorn Ævarr Steinarsson	Lecture
Reykjavik	8.okt		23. Policy and Planning	Dr. Ragnar Arnason	Lecture
Reykjavik	8.okt		23. Policy and Planning	Dr. Ragnar Arnason	Lecture
Reykjavik	9.okt		23. Policy and Planning	Dr. Ragnar Arnason	Lecture
Reykjavik	9.okt		23. Policy and Planning	Dr. Ragnar Arnason	Lecture
Reykjavik	10.okt		23. Policy and Planning	Dr. Ragnar Arnason	Lecture
Reykjavik	10.okt		23. Policy and Planning	Dr. Ragnar Arnason	Lecture
Reykjavik	11.okt	9	Presentation 5: Fellows introduce status of the stock assessment and fisheries management in their home country	Tumi and Thor	Fellow's presentations
Reykjavik	11.okt				Studytime
	13.okt		<i>Fellows split into groups according to their area of specialisation and the specialist training starts</i>		