

SOZIALWISSENSCHAFTLICHES INSTITUT DER BUNDESWEHR
Berichte Heft 45

3/88

G. Frick

In cooperation with
NATO DEFENSE COLLEGE
ROME

SYSTEMATIC EVALUATION OF THE NATO DEFENSE
COLLEGE EXPERIENCE

by

Heinz-Ulrich Kohr
Hans Eberhard Radbruch

October 1987

Preface

This study is a common effort by the Sozialwissenschaftliches Institut der Bundeswehr in Munich and the NATO Defense College in Rome. While it intends to assess the effects of the NDC's Alliance oriented program, it is in itself an example for international cooperation which goes far beyond the two authors.

I take the opportunity of this preface to stress my satisfaction with regards to the common accomplishment. Social research into military institutions still has to face institutional and mental reservations both in the military and in sociological circles. I believe that the herewith presented study will help in overcoming these barriers although much remains to be done.

The unfortunate illness of one of the authors has interfered with the completion of the study. Personnel and technical shortcomings in the printing facilities of the Institute have further added to the delay of the final publication.

As editor of the Institute's research publications, I take pride in having after all this piece of research in our report series. For that, I would like to express my gratitude to the authors and the College.

Bernhard Fleckenstein
Director and Professor

Munich, October 1987

Acknowledgments

This study is the result of years of intensive planning, research, observation, and consultation. It could not have been accomplished without the cooperation of many people. Therefore, the authors are grateful to a considerable number of persons.

The study originates with a suggestion by the Academic Advisory Board that was followed up by Vice Admiral Sir Lancelot Bell Davies, KBE, UK (Commandant 1978 - 1981), who simply wanted to know "whether we are doing it about right" and not only "to have it in the guts".

His and the former Director's of the SOWI, Prof. Dr. Ralf Zoll, advice had a considerable influence on the shape of the design of the study.

Without the personal engagement of both of them the project might have faltered. We would like to thank them specifically.

Likewise we wish to thank the NDC Faculty and Course Members for their critique, interest, response, and help, without which the study would not have been possible. On the individual level, Alan N. Sabrosky's critical remarks on our manuscript have been particularly helpful.

Of course, to cite a phrase that bears repeating, the authors take full responsibility for any errors and shortcomings in the study including the criticism furnished by others.

The study is based on the data of Members who attended the NDC Courses of Fall 1981 (Course 59) and Spring 1984 (Course 64). Its findings confirm

Vice Admiral Lancelot Bell Davies' conviction "that we are doing it about right". And after the conclusions of this study it is knowledge and not only "gut - feeling". Only a few weaknesses have been identified. They have been, they are, and they are going to be addressed by the College management. International educational institutions tend to a rather static existence, off the mainstream. With its response to this study the NDC is proving its dynamism.

We believe that the findings of this study will contribute to a change in the structure and the program of academic instruction and thus help to adjust the NDC to changes in its political and societal parameters.

We are grateful for having had the opportunity to work on a research project that does not only further theoretical concepts but has had an impact on practical life, too.

Heinz-Ulrich Kohr
SOWI Munich

Hans Eberhard Radbruch
NDC Rome/MoD Bonn

TABLE OF CONTENTS

Page

PREFACE

1.	HISTORY AND APPROACH OF THE PROJECT	1
1.1	The NATO Defense College Mission	2
2.	METHODOLOGY OF THE STUDY	9
2.1	The Pre-Study	11
2.2	The Main Study (Part I, Part II)	16
2.3	Data Analysis	18
2.4	Data Processing	20
3.	THE NATO DEFENSE COLLEGE	20
3.1	History of the College	22
3.2	Student Body (Members)	24
3.3	Language	25
3.4	Faculty	26
3.5	Lecturers	28
3.6	Overall Outlay of Course	28
3.6.1	The Academic Program	29
3.6.2	National Presentations and Command Briefings	34
3.6.3	Tours	35
3.6.4	Methods	38
3.6.5	Study Projects	40
4.	THE PROBLEM	41
5.	HYPOTHESES	46
5.1	Broader and More Balanced Perspectives	46
5.2	Insight into other Alliance Nations' Policies and Philosophies	46
5.3	Informative Courses of Study of Military, Political, Economic, Technological, Geographical, Sociological and Psychological Factors and Problems	47
5.4	Mutual Understanding	47

6.	THE SAMPLES	48
6.1	Description of Course 59/Course 64	48
6.2	Language Characteristics	52
7.	FINDINGS	54
7.1	Broader and More Balanced Perspectives	54
7.2	Insight into other Alliance Nations' Policies and Philosophies	65
7.3	Informative Courses of Study of Military, Political, Economic, Technological, Geographical, Sociological and Psychological Factors and Problems	69
7.4	Mutual Understanding	75
	CONCLUSIONS	88
	ANNEX A: QUESTIONNAIRES	92
	ANNEX B: ACADEMIC PROGRAM OF Course 69 (1986/87)	100
	LITERATURE	105
	FOOTNOTES	107

1 HISTORY AND APPROACH OF THE PROJECT

Over the years, the NATO Defense College has been the subject of a number of reviews, but it has never been evaluated by an outside organization. Thus the college decided that it would be desirable to evaluate the College program and experience on a systematic, rational and objective basis.

During a visit in March 1979, the Commandant of the College (Vice Admiral Sir Lancelot Bell Davies) and the Staff and Faculty involved discussed possible approaches and objectives concerning the design of an empirical evaluation study with the Director of the German Armed Forces Institute for Social Research (Prof. Dr. Ralf Zoll) (1). In consequence, the College asked the Institute to prepare an outline of considerations regarding possible methods and scopes of such a study. The Institute's proposal was submitted to the College in August 1979. In a second discussion (March 1980), the College and the Institute came to a preliminary decision concerning the empirical approach. The original idea to direct the study to the body of College Anciens was discarded because an investigation of this scope calls for an enlarged financial and organizational background as well as detailed experience and carefully developed research instruments. Thus it was agreed to base the project on a less ambitious approach: if the cooperation would be approved by the Academic Advisory Board and by the German Ministry of Defense (2), the study should focus on the Course Members' opinions, attitudes, and expectations at the beginning of the Course, and contrast these with the Members' opinions, attitudes, and evaluations at the end of the Course.

Roughly speaking, systematic evaluation in this

context is the process of relating empirical data on observable behavior and/or data on not directly observables - like attitudes, opinions, affects, etc. - to theoretically defined criteria. The purpose of evaluation is to find out to what extent the criteria (i.e. the objectives, goals, aims) are reached in the Course. Evaluation in general is only meaningful if a reference to some criteria - more or less concretely formulated in terms of objectives, aims, goals, etc. - is possible. Thus a closer look at the central aim - the mission - of the College is required for the evaluation project.

1.1 The NATO Defense College Mission

Reflecting the social, political, and military situation of NATO, the aims of the College have slightly changed over the years; in order to adequately understand the present mission, the somewhat detailed description of its evolution therefore is necessary here (3).

In an April 25, 1951 message to the NATO Standing Group, the Supreme Allied Commander, General Dwight D. Eisenhower, formally requested the establishment of a NATO Defense College. The driving force behind his request was "the high priority requirement to develop individuals, both on the military and on the civilian side, who will have a thorough grasp of the many complicated factors which are involved in creating an adequate defense posture for the North Atlantic Treaty area". General Eisenhower envisioned that the students for the proposed college would be carefully selected military officers in the grade of colonel or equivalent and selected national civil servants who were suitable for assignment to key NATO posts. He felt the College should focus on military, political and economic factors which influence our NATO defense effort, as well as a consideration of specific problems in both

the military and political -- satisfactory solutions may not yet have been found. He cited the Imperial Defence College in London, the National War College in Washington, and the Institut des Hautes Etudes de Défense Nationale in Paris as examples of the type of a higher level school he had in mind. Thus, it was clear from the outset that the NATO Defense College was intended to be a senior level institution which would focus on the broader aspects of defense issues.

The first mission statement of the NDC was referred to as "The Commandant's Terms of Reference" and reads as follows:

"The Commandant will direct all operations of the NATO Defense College with the specific objective of assisting the development of NATO forces into a unified efficient combat force by training of selected personnel in the following:

- a) organization and aims of the North Atlantic Treaty and major factors involved in NATO defense;
- b) problems concerning the preparation and conduct of NATO forces for war;
- c) organization and working of NATO bodies and staff."

In March 1954, a modification was made to *The Commandant's Terms of Reference* which added:

- "d) language comprehension of French or English, according to the need of individual Faculty officers and Members."

Although not included in the mission statement, a major aim from the beginning was "preparing of officers of different nationalities to work in com

mon, with a team spirit". As one of the early Deputy Commandants of the College explained, problem studies were merely vehicles for training "officers and civilians to work in international groups, and to teach them how to conform with each other's suggestions and how to compromise".

The next major modification of the NDC mission was termed the 1964 *Interpretation*. The rationale for the *Interpretation* was to "provide more specific guidance to the Faculty". The *Interpretation* further defined the mission of the NDC as being:

- "a) to train senior officers and civil servants whose work may bring them in touch with defense policy to exercise high command and staff functions in the NATO Alliance itself or in national appointments dealing with NATO questions;
- b) to study allied defense problems in their broader aspects, military, political, economic, scientific, social, and, in the perspective of world trends, to survey our relations with powers outside the Alliance and with the United Nations and other international organizations;
- c) by comparing national and international beliefs and policies, to broaden the outlook of Members and to promote mutual understanding, so that all may cooperate in the solution of common problems and assist in strengthening the unity and effectiveness of the Alliance."

In 1965, the *Interpretation* was followed by a further analysis of the mission. The new Commandant, General Fanali, stated that:

"... the primary function of the College is

no longer to train people in basic organization, Command structures, Administration, and such like. We should aim at a more advanced and intellectual type of training with the minimum of technical content. Emphasis should be placed on political, economical, and social fields, and we should try to gain a better understanding of the new type of threat which is facing us. Not only the military threat - but the overall threat - wherein pressure is continuously being applied by the Communist World in the three fields I have mentioned above."

The ideas put forward by General Fanali were, in fact, a reflection of changes which had gradually occurred over the years. The NDC Members had become better educated and most had received national instruction on basic organization, forces, and weapons. They were ready to receive instruction on high level defense planning, and, indeed, the College had already modified its program to meet the new need.

The NATO Military Committee conducted a thorough examination of the NDC in 1967 which culminated in a reformulation of the mission which was made part of the policy guidance contained in MC 123, dated February 14, 1969. In that document the mission assigned to the NDC was:

"to conduct informative Courses of study of military, political, economic, technological, geographical, sociological, and psychological factors and problems which affect or may affect the North Atlantic Treaty Organization, for selected personnel who may be required to perform important duties in or associated with the North Atlantic Treaty Organization and to promote mutual understanding within the Alliance."

The reformulated mission contained in MC 123 was the first formal change to the 1951 Commandant's Terms of Reference and reflected many of the changes which had evolved in the NDC Course over the years. However, the term "informative Courses of study ... for selected personnel who may be required to perform important duties" seemed to imply a lower level of instruction for Members with less anticipated responsibility than was visualized in either the 1964 Interpretation or the 1951 Eisenhower message to the NATO Standing Group. On the other hand, the revised mission included promoting "mutual understanding within the Alliance", a task which had been recognized as an important implied role of the College by nearly every previous Commandant. The statement of scope which accompanied the new mission also added a new subject, "Defense Management Orientation", which reflected the increased importance of formal management practices during the 1960s.

Additional changes to the NDC mission were contained in MC 123/2, dated February 10, 1978, the version currently in effect. The mission of the NDC stated in MC 123/2 is:

"to develop the knowledge and understanding of selected officers and officials of the factors and problems that affect, or may affect, the North Atlantic Treaty Organization so that they will have a sound grasp of the politico/military concept of the Alliance, its organization and working methods."

MC 123/2 goes on to prescribe that the scope of study at the College should include:

- "a) the aims and policies of the Alliance, its strategic concept, organization, and functions;
- b) the geographical, political, and military

characteristics of member nations, including current defense, technological and economic problems impacting on NATO policy and planning;

- c) developments outside the NATO area and their effect on the Alliance;
- d) orientation in Defense Management;
- e) practice in the English and French languages."

It should be noted that the term "informative Courses of study" used in 1969 was changed in MC 123/2 to "develop the knowledge and understanding" thus putting the mission back into the senior defense college category. The 1969 attempt to categorize Members as personnel who may "perform important duties" was deleted and left the subject open for interpretation.

The current mission statement also omits the function of promoting "mutual understanding within the Alliance", and it does no longer explicitly refer "... to sociological and psychological factors and problems which affect or may affect the North Atlantic Treaty Organization ..." (see MC 123, 1969). The rationale for these omissions may have been that these functions have become so well understood and accepted that a need to explicitly include them in the mission was no longer felt. As far as we understand the development of the mission, they remain implicit components of significant importance.

This overview of the aims of the Course leads to the following brief characterization of the curriculum (4):

The objectives of the Course refer to enrichment of knowledge, but this is only a secondary, in-

intermediate, so to say an "instrumental" objective. The primary goal of the College is to contribute to the Alliance's functioning and effectiveness by providing an academic program adequately preparing officers and officials for NATO and/or integrated appointments, and - as a basis for this - to promote mutual understanding between Members of different nationalities of the Alliance.

The College tries to achieve this goal by presenting and discussing the manifold problems and challenges the Alliance has to deal with, by organizing cooperation and reinforcing social contact, as well as by tours providing direct experience and insight. The Course as a whole is supposed to reorganize "old" and to integrate "new" information, and to restructure eventually present principles of thinking and feeling (e.g. predominant national concern), in order to reinforce attitudes and evaluations definitely approving and supporting the Alliance on the basis of profound awareness of problems paired with the capability of mutual understanding. The Course refers to complex objectives within the cognitive domain (5) and especially to objectives within the effective domain (6). The College mission - expressed as "educational objectives" - is to influence the Course Members' cognitions, evaluations, and attitudes concerning the Alliance. While the final goals are expressed (7), there is no elaboration of particular "single" aims, i.e. a list of detailed criteria allowing to check if, and to what extent, the College experience leads to the desired results.

Since the formulation of these criteria - reflecting the complexity of goals - would be very difficult in general, and especially difficult because of the policy to adapt the curriculum (and thus lectures/lecturers, and central themes, from Course to Course) (8), the following

consequences arise concerning a systematic empirical evaluation: the study cannot refer to explicitly stated detailed criteria: it rather has to focus on the assessment of global changes within areas of Course Members' cognitions, attitudes and evaluations probably being a consequence of the College experience.

2 METHODOLOGY OF THE STUDY

In terms of the design, a study contrasting the Course Members' expectations and evaluations regarding the Course and its general subjects at the beginning of the Course with the evaluations given at the end of the Course was agreed to be most adequate (9). The study's purpose is twofold: (A) to find out what changes take place during the Course, and with respect to what subjects/matters and (B) to draw inferences based upon (A), concerning the general effects of the Course in relation to the central aims outlined above.

Two methodological approaches to "measure" the changes are appropriate for questions of this type: interviews and standardized questionnaires. Most adequate for the rather complex intention of the study principally are interviews. This method, however, is only applicable if manpower and resources are not too limited. Both limitations given, the alternative is the use of questionnaires. In order to overcome some of their disadvantages (problems of adequate wording and comprehension; difficulty to select the adequate standardized questions/statements; problems to cover the relevant topics), it was decided to use interviews as a counter-control of the standardized questionnaires, and to refer to questions not covered in the questionnaire. Besides this, the interviews were intended to serve as a medium to criticize the questionnaire.

As the instruments to measure the Course Members' opinions and attitudes at the beginning and at the end of the Course had to be developed and tested, it was agreed to conduct a pre-study. Besides probing the instruments, this study also was aimed at gathering detailed information on "psychological obstacles" usually complicating research of this kind (e.g. definition of the interview situation; cooperation between the Course Members and the researcher; anonymity of the Course Members' responses etc.).

Concerning the main study, one of the principal problems is the generalizability of the findings, because one might argue that each Course consists of different individuals and thus has, so to say, its "own personality". If this were true, and if this "personality" indeed had an impact on the stability/change of the measured opinions and attitudes, one would - strictly speaking - not be able to generalize the findings obtained in one Course to those of any other Course. Being aware of this potential problem, the College and the Institute agreed that it would be very useful not to limit the main study to one Course only, but to investigate at least one of the following Courses as well. Due to financial and organizational constraints it was not possible to definitely approve this approach initially. However, the Academic Advisory Board of the College in March 1983 suggested to go ahead with the project after having recognized the results of the first investigation (Winter 1981/1982). This second investigation was conducted in Summer 1984.

Figure 1 summarizes the different phases of the project:

Figure 1: The Different Phases of the Systematic Evaluation Project

Course No.	Date	Phase
57	Winter 1980/81	pre-study
59	Winter 1981/82	main-study I
64	Summer 1984	main-study II

2.1 The Pre-Study

The following section describes the applied methods in some detail. Since the validity of the data (and, in consequence, the findings as well) to a large extent depends on the research instrument as well as on the situation in which the enquiry was done, these aspects are addressed first.

In a lecture to the Faculty, general problems and possible approaches of a systematic empirical evaluation in general, and peculiarities of the planned enquiry were outlined. In the discussion, aims of the study, expectations of the College concerning the applicability and usefulness of outcomes, the actual design and eventual forthcoming steps of the research project were the main topics. At the end of the presentation the questionnaire was introduced to the Faculty and its basic rationale and purpose were explained. The study's intention to gather a first set of information and empirical data, and to encourage the Course Members' critique concerning

the questionnaire in order to obtain a basis for revisions was emphasized.

On the basis of this discussion, the College Faculty accepted the project and supported the realization of the enquiry. Regarding the method, it was suggested to do a briefing with the Members. As the practice showed, this procedure was generally accepted since it met the Course Members' interest to discuss purpose and methodology of the enquiry, and because it facilitated the explanation of technical matters regarding the filling in of the questionnaires, etc.

In September 1980, the first phase of the pre-study began with the briefing of the Course Members: the idea and the purpose of the study were introduced to the Members and some details concerning the questionnaire and the interview were discussed.

In this presentation the character of a pilot study was stressed, and the Members were asked to give critical comments, suggestions for improvement, etc.

Concerning the questionnaire, some of the general problems as well as advantages of the method were discussed, and the purpose of the interview as a means of "counter-control" was explained.

The members were asked to complete the questionnaires within the next two days, and to discuss eventual problems of wording or semantics of statements with the associate of the SOWI Institute (co-author of the present study) who did the interviewing and ran the questionnaire. Together with the questionnaires, each Member got an information sheet summarizing the most important aspects of the briefing (see next page).

In the second phase of the pre-study (last half of January 1981, i.e. at the end of the Course 57), the Course Members were again asked to fill in the questionnaires (10), and the Members who had already participated in the interview at the beginning of the Course were re-interviewed. In addition, twelve randomly selected Members, who had not been interviewed in the first phase, took part in the post-Course interviews. The "post-Course" interview (11) mainly referred to:

- critique of the study in general, its methodology, and the questionnaire in particular;
- the College mission, and the relevance of the different aspects named in the definition of the mission (see Chapter 1.1);
- the semantics of "mutual understanding";
- the problems of using a foreign language during the Course;
- the "two-language policy" of the College (12);
- various aspects of work at the College (committees; active participation of Members; intellectual challenge; lectures/lecturers; competence of Members and Faculty);
- a general evaluation (resp. expectation) concerning the period of study at the NATO Defense College.

SYSTEMATIC EVALUATION OF THE COLLEGE EXPERIENCE: INFORMATION CONCERNING THE STUDY

Over the years the College has been the subject of a number of "in house" reviews, but it has

never been evaluated by an expert outside organization. The College has now decided that it would be desirable to evaluate the College program and experience on a more systematic, rational and objective basis. Accordingly, the College has enlisted the services of the German Armed Forces Institute for Social Research in Munich to carry out such a study.

The study may be expanded in due course to obtain data from those who are already Anciens of the College and from others. However, it appears that the soundest possible basis for the study will be obtained by limiting the initial scope to the Members of Course 57. The College will greatly appreciate your cooperation in the study in the manner indicated below. The questionnaires handed out to you today as well as the interview will provide a first set of information and empirical data. Since evaluation in general is a task which calls for evaluators not being involved in the institution to be evaluated - for a minimum of subjectivity and a kind of "critical distance" concerning the institution's mission - the College entrusted me with this pilot study. As a social scientist and psychologist I of course know that the outcome of this study strongly depends on your willingness to help and to cooperate. And I am fully aware of the problem that - due to the study's purpose and intention - I need to ask you for information such as data concerning your interests, your attitudes, your opinions, etc. I am going to treat these data strictly confidentially. They are exclusively used for statistical purpose within the procedure of data analyses. Besides me, no person or institution is going to have access to any material (questionnaires, interview records, etc.) of the enquiry. Since I, as the data analyst, should be "blind" with respect to the source of data, please do not note your name on any of the questionnaires or records. However, some kind of clear, but

anonymous identification is needed for two reasons:

1. In order to relate the different data, I must be able to clearly identify the data referring to the same person.
2. Since a second enquiry is planned at the end of the Course (with purpose of finding out if your evaluations have changed, if your expectations with respect to the Course have been verified, etc.) we must find a means of clear but anonymous identification. Furthermore, this identification must be reproducible after about half a year.

Principally, any code (for example, a randomly assigned number) might serve this purpose. Experience, however, has demonstrated that some of you will have forgotten a code of that kind (writing it down on a piece of paper helps, but only if the paper is not lost).

So I ask you to use the following as a code:

The last four digits of your best friend's telephone number (or the last four digits of any other "anonymous" number you are absolutely sure to remember at the end of the Course).

Please note this four-digit number whenever

"Identification: is asked for".

Your help and cooperation is essential for this study. Please do not hesitate to answer frankly if the answer might not be desirable with respect to the perspective of the College. It is the study's task to point out the problems,

deficiencies, etc. Your critique concerning the questionnaire is needed in order to improve the instruments. Please note your remarks and/or discuss them with me.

Since the scope of standardizing questionnaires is limited with respect to the expression of critique, suggestions, concepts, etc., 12 randomly selected Course Members will be asked to participate in the interview. The interviews have the double purpose of (1) counter-controlling the questionnaire data, and (2) adding more complex information concerning evaluations, concepts, ideas, etc.

Since the data gathered in the pre-study demonstrated the usefulness and applicability of the selected methods of enquiry, the College decided to extend the study of Course 59 and to base the research report on the analysis of the data of this Course.

2.2 The Main Study (Part I, Part II)

The Course Members' critical comments and suggestions regarding the wording and the semantics of the questionnaire statements were very helpful for the revision of the questionnaire. In addition, statistical analyses of the pre-study were done in order to obtain information on the adequacy of the research instrument. All in all, only minor modifications of the pre-study questionnaires were needed (wording of statements, layout, instructions, etc.) and the revised forms were completed in Summer 1981.

The first part of the main study began in September 1981. A few days after their arrival in Rome - and before the beginning of the Course - the Members of Course 59 were asked to participate in a briefing on the purpose and the method of the study. Since the pre-study had shown that a care-

ful introduction (13) is very important, it was decided to do the briefing for each of the committees (14) separately, and to explain each of the questionnaires by giving examples on how to handle it, etc. On the average, the briefing took about half an hour. At the end of the briefing, the Members were asked to complete the questionnaire within the next two days and to discuss eventual problems with the interviewer.

Because the design of the pre-study proved to be useful it was adapted to both parts of the main study (i.e. the investigations of Course 59 and Course 64) without changes; thus there is no need to reiterate the details here.

Figure 2 summarizes the principal aspects of the design formally.

Figure 2: Principal Design of the Systematic Evaluation Project

Time of measurement:	PRE-COURSE, i.e. at the beginning of Course 59 and Course 64 respectively	POST-COURSE, i.e. at the end of Course 59 and Course 64 respectively
Instruments:	Questionnaires ¹⁾ Q ₁ to Q ₈ to all Members	Questionnaires Q ₁ to Q ₈ to all Members
	Interviews with 12 randomly selected Members, one of each Nation	Interviews same 12 Members plus additional 12 randomly selected Members
Primarily measured aspects:	Course Members' expectations	Course Members' evaluations

1) The original questionnaires are reprinted in the annex.

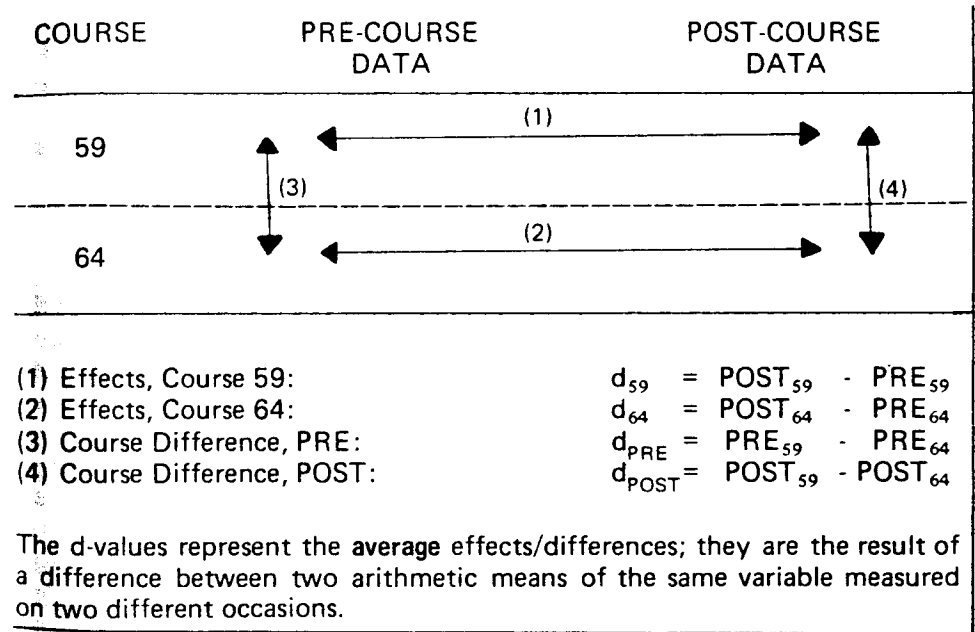
2.3 Data Analysis

The design sketched in Figure 2 implies four different systematic comparisons of the pre- and post-Course data.

Figure 3 represents these diagrammatically. As the symbolic representation visualizes, the comparisons refer to the following questions:

- (1) What is the average effect of Course 59? To what degree is this a match between the Course Members' expectations at the beginning of the Course and their evaluations at the end of the Course? Did opinions, attitudes, etc. change during the Course?
- (2) What is the average effect of Course 64? To what degree do the Course Members' expectations at the beginning of the Course match their evaluations at the end of the Course? Did opinions, attitudes, etc. change during the Course?
- (3) Did the expectations, opinions and attitudes the Members held at the beginning of the two Courses differ significantly? In what aspects?
- (4) Did they differ at the end of the two Courses?

Figure 3: Aspects of Data Comparison Implied in the Design of the Systematic Evaluation Project



The central aspect of the data analyses was the assessment of the effects of Course 59 and the findings of the respective analyses are reported in the following chapters in detail.

The second part of the main study, i.e. the investigation of the data obtained in Course 64, served as a "counter-control" (15) of the first part. The analyses of the contrasts did not show substantially different (16) effects for both Courses. To avoid redundancy of the presentation, the aggregated data (i.e. averages, percentages, frequency counts) are therefore not represented in the respective tables of results.

As they do not directly refer to the effects of the Course, the aspects (17) and (18) in Figure 3 have not been of major concern in the evaluation project. Thus the results of the comparisons are not reported here. The data show, however, that no relevant differences exist between either the pre-Course or the post-Course situation.

2.4 Data Processing

The questionnaire data were coded and cardpunched, and the resulting data files of pre- and post-Course data were integrated into an SPSS-System-file (17). In accordance with the design of the study, the data analyses were performed by means of statistical procedures contrasting the pre- and post-Course data (procedured T-TEST or non-parametric tests in SPSS). While the rating scale data have been reduced to percentages in order to facilitate the reading and the interpretation of tables, the tests of significance (18) were based on the quasi-numeric rating data whenever this seemed reasonable (19). Since the respective procedures are named in the tables reporting the results, further details are not described here.

3 THE NATO DEFENSE COLLEGE

Compared to other national institutions of higher defense education, the NATO Defense College seems to enjoy a protected and tranquil environment.

While in the last decade, in many countries, the national system of military education has been thoroughly reviewed to meet internal and external challenges and answer political and social pressure, the NATO Defense College was, to a large extent, protected against such pressure by its international character. When L.I. RADWAY did a study on the College in 1957 (20), he was more interested in its behavioral and organizational aspect than in its curriculum and teaching effectiveness (21).

The involvement of academia in the process of evaluation and revision depends very much upon national perceptions. In the United States, the continuous ongoing theoretical discussion of "military professionalism" includes an analysis of the military system of education and training. In the United Kingdom, a major revision of the program of the Royal College of Defence Studies (RCDS) was achieved simply by appointing an expert of worldwide reputation, the late Alistair Buchan (UK). In Germany, on the other hand, only a broad and general conceptual reform of the system of military education and training led to some involvement of the pertinent academic disciplines (22).

The NATO Defense College in Rome is an unique institution of higher military education as it is the only one in which not only the student body and Faculty, but also the organization and structure, are entirely international and where the great majority of the staff and students do not work in their native language (23). It is obviously the international character of the College which has led to the phenomenon of low key stature and little outside interest. Because of this, outside pressure for change is diluted by the filter of need-for-consensus among the sixteen nations of the Alliance. Only structural changes within the organization of the Alliance

itself might lead to the need for a major review and public discussion (24). Moreover, the College is part of the integrated military structure of NATO but outside the major NATO Command structure. As it is serving the whole of the Alliance it is placed under the responsibility of the Military Committee. Of course there has been, from time to time, an internal review of the College done by the International Military Staff for the Military Committee, but these reviews dealt with the more technical aspects, particularly cost-effectiveness. Nonetheless, these reviews have led to some change, the most recent being the introduction of a limited research/study capacity.

3.1 History of the College

The history of the NATO Defense College goes back to the very early days of NATO. It was in fact General Eisenhower who, as the first SACEUR (Supreme Allied Commander Europe), initiated its establishment. Eisenhower, as one of the foremost leaders of the Alliance in World War II, continued his experience gained from the US National War College (25) where, together with the Imperial Defence College (today the Royal College of Defence Studies) and the Institut des Hautes Études de Défense Nationale, an approach had been developed which answered the need for military leaders who integrated political and military thinking in the planning of national strategy and high level national security policy. Eisenhower's original intentions are reflected in a message to the Standing Group:

"The problem raised by the new venture of creating an adequate defense posture for the whole of the North Atlantic area" was "on such a different scale from those which had heretofore confronted the member nations" that individuals were needed "who are capable of adapting themselves to this

new environment" by "broadening their outlook". "Both on the military and the civilian side", these individuals would be developed, in order to give them a "thorough grasp of the many complicated factors which are involved in the problem of creating an adequate defense posture". "The course might include a study of military, political and economic factors which influence our NATO defense efforts" (26).

The requirements stated in Eisenhower's message have determined the care of the College mission up to these days (27). The present Academic Program is "designed to insure that at the completion of the Course all participating members will have:

- a) an improved knowledge and understanding of the organization, working methods, and conceptual basis of NATO and of NATO policies including a basic grasp of the principles of defense management and crisis management as practiced within the Alliance;
- b) an improved knowledge and understanding of the threats to the security of the Alliance and its individual member states;
- c) an improved knowledge of the political, economic, military and social system of the various member states of the Alliance and of their capabilities and limitations in military and international affairs as well as a greater appreciation for the cultural diversity of the Alliance;
- d) an improved knowledge of trends in world affairs in various fields which may influence the security of NATO and its individual member states; and
- e) an opportunity to improve their English or

French language capability" (Academic Program, Course 69, September 1986 - February 1987, NDC, Rome, p. 3).

The need for the establishment of the NATO Defense College for the training of officers and civilians who were needed to serve in key capacities within NATO organizations was obviously generally accepted. The North Atlantic Council approved General Eisenhower's proposal after only short deliberations. Already in November 1951, the first Course of the College began in Paris. In 1966, when France withdrew from the integrated military structure of the Alliance, the College was transferred to Rome.

3.2 Student Body (Members)

The creation of the College had been dominated by American concepts. Besides General Eisenhower, General Gruenther, Professor Arnold Wolfers and General Paul Caraway had played a major part in its establishment (28). But the College in American perspective never gained the same rank as equivalent national institutions which have an impact on career prospects and, consequently, on the selection of students. One of the reasons for this attitude probably is the length of the Course. The Courses at the College last half a year or five and a half months in real terms. Attempts to lengthen the Course were made again by different Commandants in 1954, 1963 and 1972 but failed mainly because of the financial and manpower implications. As there is a tendency to judge the quality of an educational program in quantitative terms and not so much in terms of real achievement, the NATO Defense College has difficulty to maintain its claim to be of the same rank as similar national institutions whose Courses last one year. This is not only a matter of prestige but has consequences - as already outlined - for the selection of students. RADWAY

(29) has described the difficulty which the heterogeneity of the student body in 1957 posed for the implementation of an ambitious curriculum as originally intended.

Today, the situation has changed but an international institution of senior mid-career education will always be faced with features of its heterogeneity which are contingent on different national education systems, different national concepts and different career patterns. They, indeed, pose special problems to the curriculum planner.

3.3 Language

Moreover, there is a language problem. Indeed very few of the students are truly bilingual but, while French is still upheld as the second official NATO language, its use has been considerably reduced since the College moved to Rome. The reasons are evident:

- a) the "ambiente" is no longer a French speaking one; there is no opportunity to use the language in daily life; there is no incentive to speak the language;
- b) with the French withdrawal from the integrated military structure, French speaking students were also withdrawn. This decreased the number of native French speaking students to less than 5 % while the share of the native English speaking students per Course is approximately 40 %;
- c) before joining the College future Members are asked in which of the two NATO languages they would prefer to work. On the average, only about 3 (approximately 5 %) vote for French.

In consequence, English has become the language of everyday communication. Here language proficiency has improved considerably. Students from The Netherlands, Norway, Denmark and Germany, with a few exceptions, speak and write English fluently. One might say that the "rare unfortunate who is capable of neither official language and has to smile his way through the program", is an exception. However, communication among students is still a problem, and language may at times, particularly during the initial weeks of Course, have negative impacts on the level of the academic program. To improve language proficiency, especially for Members from the Southern Flank who still experience difficulties, the College runs a four-week pre-Course intensive language program.

Language classes are graded depending upon the level of proficiency individual Members already have. While English starts at an intermediate level, two basic French classes have to be formed. The majority of students in these classes consists of native English speakers and this, at times, leads to some problems:

- a) for most of them this is the first foreign language they learn;
- b) there is a lack of motivation as the number of hours of instruction cannot allow them to achieve any speaking ability in their short time at the College, and few envisage the opportunity to use French in their future career.

3.4 Faculty (30)

There has been some discussion on whether higher defense colleges really would benefit from a structure based on a theoretical conceptual frame of reference or whether the more casual pragmatic

approach is not best suited. In this context, one will have to agree that the leadership of the Commandant is a decisive factor for the development of defense colleges. If nothing else, the cited example of the late Alistair Buchan's appointment as Commandant of the RCDS (31) with the foremost aim of setting off a major reform is a case in point. But, on the other hand, there is the need for some continuity and it is none other than the RCDS which is today convinced that the program of a defense college needs some structure to be efficient. If this is valid in the case of a national defense college, it is all the more true in the case of an international college where the change of Commandants not only means the change of personalities but also of nationalities and, therefore, the national perceptions of the role and function of higher military education in general and the NATO Defense College in particular.

Like other comparable institutions the College does not have a teaching Faculty. The scope of the studies is too broad to think of such a solution in terms of cost-effectiveness. One would not only need to have all pertinent academic disciplines represented, from history to political science in all its features to economy and geopolitics. For most of them, there would be a teaching load of between two to four course hours and this only if one introduces additional seminars and does not take the time on tour into account. Moreover, a position on the Faculty of a non-degree granting institution situated in Rome, where there is little opportunity for personal affiliation with other institutions, might not attract the quality of Faculty which the College requires. The Faculty Advisors of about ten Colonels (or equivalent) or Embassy Counsellors serve on the normal NATO tour of two to three years. Their function is more similar to the one of tutorship in the British system of higher

education.

In 1978, a Planning and Internal Research Branch was established in the College; the word "internal" was chosen to avoid the impression that it was intended to establish a NATO 'think tank'. The Branch consists in theory of a political scientist (Internal Research Officer) and an education specialist (Academic Program Officer); in practice, only the Internal Research Officer provides academic expertise and continuity in planning.

3.5 Lecturers

For the implementation of its program the College relies almost entirely upon visiting lecturers. Visiting lecturers are an asset and a liability as students can thus normally be exposed to the foremost experts in any specialized field (32) if the College does not have - as it sometimes happens - to settle for its fifth or sixth choice of lecturers. But even with the most qualified visiting lecturer a more basic problem is that one can try to relay to them one's own intentions but there is no way of ensuring that they do not interpret lecture titles and aims in their own way. Too many lecturers who, in College jargon, are called "unguided missiles" can destroy any carefully planned and balanced curriculum.

3.6 Overall Outlay of Course

Besides the heterogeneity of the student body, the time constraint is decisive for curriculum planning at the NATO Defense College. The five and a half months available have to be split between (33):

- a) The Academic Program proper (ca. 45 %)
- b) Command Briefings and National

Presentations (ca. 5 %)

- c) Tours (ca. 45 %)

The time needed for b) and c) is very much decided by factors over which the College has little control as it is determined by the size of the Alliance and the structure of its organization. This means that the time for academic activities cannot be extended beyond 45 - 50 working days at the most. In this time frame the College has to try to cover the political, economic, technological, military, geographic, sociological and psychological factors and problems which might or might not affect NATO.

The aims are to be achieved "... by a program of lectures, seminars, group discussions, exercises, tours and group projects and, not least, by ensuring that students of different nationalities, services, backgrounds and experience work together in small groups for daily work. There is an active social life in the College" (34).

To operationalize those aims, an Academic Program is developed for each Course and later on broken down into syllabi for the individual teaching units (called Study Periods).

3.6.1 The Academic Program (35)

The mission of the College, the structure of the student body and the organizational set-up are the basic parameters on which the concept for the development of the curriculum has been based. Underlying are the two following propositions:

- a) The analytical approach reflected in General Beaufre's (36) triadic concept of security contains a structure which can easily be translated for curriculum purposes.

b) A Central Theme can serve in holding the different parts of the curriculum together while giving it the necessary actual dimension.

Both instruments have been chosen as they represent a useful tool for analysis by action-oriented military officers, diplomats and civil servants who constitute the student body of the NATO Defense College. In using it, the College seeks to show students the relevance of theoretical analysis to the realm of practical decision-making in which they will be engaged when they leave the College.

While little need be said about the Beaufre concept, the Central Theme needs some elaboration. It is conceived as an additional instrument to structure the Course. Lecturers are asked to project their subjects on its basis. The Central Theme presently in use reflects the transitory stage of international politics:

"The role of NATO in a changing world setting: security for the Alliance nations in the face of new challenges in the military, economic and psychological/ideological fields."

Ideally, the Central Theme should not only constitute the backbone of the curriculum structure but also the red line which holds all the lectures together. The Central Theme has not always been able to cope with the last function but it has helped to improve the cohesiveness of the lecture program.

The Beaufre concept is, of course, one of the many concepts which could have been chosen. It was adopted because it suits the needs of the College best for a conceptual frame of reference applicable in curriculum terms. It allows,

moreover, to overcome the fragmentary, random approach as described by RADWAY and, additionally, allows to teach concepts and not only applied subjects. Students in their End-of-Course evaluation have overwhelmingly endorsed this concept.

In consequence, the Academic Program of Course 64 has the following structure and aims:

Study Period 1 - International Relations and NATO Fundamentals

To give an overview of the historical developments leading up to the present political and military situation as between the West and the Warsaw Pact nations;

to explain the history, political structure, and military/civilian organization of the Alliance. To examine NATO defense planning generally and some current Alliance problems;

to describe the conceptual basis of national and international security.

Study Period 2 - The Military Power Factor

To explore various aspects of the military dimension of security through an examination of military force and its various components, and of strategies for its application.

Study Period 3 - The Economic Power Factor

To explore various aspects of the economic dimension of security, through a consideration of modern economic principles and relations, the measurement and uses of economic power, and the significance of economic vulnerabilities.

Study Period 4 - The Ideological and Psychological Power Factors

To explore the ideological and psychological dimensions of security by examining a variety of psychological and ideological factors, how they affect other power factors, and how they impact upon the formulation of foreign and security policy.

Study Period 5 - The USSR and Eastern Europe

To provide a comprehensive picture of the sources and content of the domestic and foreign policies of the USSR and the Eastern Bloc, including such factors as historical and philosophical background, ethnic composition, economic resources and political structure.

Study Period 6 - Alliance Across the Atlantic

To examine the basis of the NATO Alliance and its underlying relationships, the common and individual security interests of the members, their economic and manpower potential, their geopolitical situation, their psychological attitudes, their basic value systems, and the impact of factors making for diversity or for greater integration in the Alliance.

Study Period 7 - NATO and the Warsaw Pact

To assess the current status of and issues in East-West relations with specific references to the fields of arms control, technology and civil defense.

Study Period 8 - Developing Power Centers Outside NATO and the Warsaw Pact

To present an overview of the geopolitical importance, the military and economic capabilities and

the political attitudes of the most significant areas and countries not aligned with NATO or the Warsaw Pact;

to examine the relations of these areas and countries to NATO and the Warsaw Pact; to appraise Soviet objectives, accomplishments and problems with regard to these areas; to outline some possible developments, and to assess the potential for conflict or other forms of instability with implications for Alliance security.

NATO AND THE WORLD - LOOKING TOWARDS THE YEAR 2000

To project the political, economic, technological and military situation of the Alliance into the future: to analyze what challenges the Alliance might face and to assess its ability to cope with these challenges.

Since the introduction of the conceptual frame of reference, the structure of the Academic Program has remained basically unchanged, with one major exception. Originally a more substantial theoretical part had been envisaged. In implementing this part, the College encountered some major objective difficulties:

- a) theory is rather abstract for individuals who come from an active life in operational responsibilities; it is sometimes rather difficult to comprehend without preparation;
- b) the language difficulties decrease during the Course; abstract theoretical topics, at the time when the language barrier is maximal, are simply not understood; the first four Study Periods are remnants of the original approach.

All other changes can simply be attributed to the updating factor. There is a deliberate attempt made to keep the program not only current but also to anticipate areas of crisis and conflict. For example, the College introduced a lecture on "The Growing Importance of Peripheral Areas" long before the discussion about out-of-area threats started and later dropped it when the latter discussion became, by its very nature, an inherent part of all lectures which deal with Alliance problems.

The list of the Study Periods, the lectures, and the seminar and panel titles for Course 69 (September 1986 - February 1987) in the Annex give an indication of the changes of the current Academic Program.

3.6.2 National Presentations and Command Briefings

Exposure to national policies and national perceptions of the individual NATO countries has a focal point in the National Presentations which are given either on tour or in the College, if that country is not visited by that Course. The aim of these presentations is:

- To describe the objectives, principal issues and problem areas of the country's foreign policy, and to discuss the national position on major political and military issues of Alliance concern.
- To give an overview of industrial capabilities and economic issues.
- To describe and discuss the country's armed forces and their role, and successes and problems in the defense area.

The way how nations implement this is to a large extent left to them, although the College does from time to time come up with concrete suggestions. Lecturers are usually from the pertinent government agencies.

Additionally, Members are confronted with the mission and problems of the major areas of the integrated military structure, here the aim being:

- To describe and discuss the mission and the geopolitical, operational, intelligence and logistic factors of primary interest to that Command area.

The Command Briefings are limited to the Major NATO Commands and the Major Subordinate Commands and usually given by the Commander-in-Chief himself.

3.6.3 Tours

Tours are an essential part of the curriculum. The College Charter sets the following guidelines for the conduct of the tours at the College:

"Instructional tours abroad visiting NATO capitals, main cities, key military NATO Headquarters and installations and selected industrial centers constitute a vital part of the curriculum."

"The Commandant will arrange such instructional tours and visits as he deems appropriate to accomplish the mission of the College. The total time to be allotted for these tours and visits should not exceed forty days for any Course."

"The Commandant will be responsible for scheduling these tours in accordance with

the budgetary provisions. In the event of financial limitations, the North American Tour will have priority over other tours."

The aim of the tours, as outlined in the current Academic Program, reads as follows:

"National Capitals:

To describe the objectives, principal issues and problem areas of the country's foreign policy and to discuss the national position on major political and military issues of Alliance concern.

To give an overview of industrial capabilities and economic issues.

To describe and discuss the country's armed forces and their role, successes and problems in the defense area."

"Field Trips and Related Military Briefings:

To give an impression of the potential and capabilities of the country's armed forces, as well as of the operational doctrine, intelligence, logistic and geopolitical factors of primary interest to those forces."

"NATO Commands:

To describe and discuss the mission and the geopolitical, operational, intelligence and logistic factors of primary interest to those forces."

"Visits to Industrial Plants:

To improve understanding of industrial capabilities and problems."

The importance of the tours can best be described in the words of one of the former Commandants,

vice Admiral Sir Lancelot Bell Davies, in his last address to the Military Committee on June 18, 1981:

"I believe I should go on record as saying that, if you don't tour, you lose the single most valuable event of the Course. We are running an expensive show from the nations' point of view when the costs of maintaining Members and their families in a foreign land are taken into account. The tours are the principal thing we offer that is really exceptional in quality and content when compared with the programs of most other colleges. Furthermore, they are the most vital teaching element in the syllabus, both in instructional value and in building international human relations. That this is so is largely due to the high quality level of attention we receive in each of your nations each time we visit."

The tours enhance the learning experience through on-the-ground exposure to national authorities - clearly more interesting and stimulating than receiving national presentations in the Lecture Hall in Rome. In addition, of course, the first-hand exposure to each nation's military forces, political structure, industrial capacity and people cannot be acquired in any other way. The tours have consistently been rated by Members as an exceptionally valuable part of the overall College experience. To this must be added that, from the College standpoint, the tours keep the College well exposed to and known in the capitals of the Alliance which, in turn helps to maintain the quality of Members selected for the College, stimulates interest in its activities, aids in the recruitment of Faculty Advisors and other key staff members, etc., etc. In sum, it appears that a continuing tours program will remain an indispensable part of the College's Academic Program.

Nevertheless, the College must seek continuously to review the tour program to adjust to recent developments, to make it more efficient, and to enhance its value to Members. The current program has, in the view of many, some weaknesses, viz:

- not all NATO countries are visited by each Course;
- the Flanks are relatively neglected in that, at the time of this Study, in any one Course, only the North or the South was visited;
- even in those countries visited, time is sometimes too short to allow a valid appreciation by Members;
- individual national programs have not always been adequate for College needs (this particular drawback is being dealt with by a new arrangement to involve individual Faculty Advisors much more deeply in analyzing and proposing national programs for the tours).

An additional problem is, of course, the constant increase in travel costs, particularly in air fares. Already now the College has to spend more than 50 % of its operating budget for the tours. Financial constraints may well make it impossible to optimize the structure of the tour program to meet the needs of the College completely.

3.6.4 Methods

The implementation of the Academic Program proper focuses on the lectures which normally last 60 minutes, but which can be extended to 90 minutes if the topic so requires, and the follow-up discussion with the lecturer of 60 minutes. Most

other academic activities are built around the lectures, i.e. the daily activities - specially during the first part of the Course - focus on the lecture as the time before and after the lecture is dedicated to the preparation for and discussion of its contents. For this purpose a syllabus with bibliography is issued.

For this part of the activities the College utilizes a multi-national committee system. Each committee consists of 6 - 8 Members, one being nominated as chairman and one as secretary with a Faculty Advisor in charge of each committee. Great care is given to the right mix in committee. The intention is to have not more than one Member from each nation within a committee and to have the right balance between the different geographical areas of the Alliance, between the services, between soldiers and civilians, between language proficiency and between the education and career background of the individual Members.

The committee approach as an optimal learning device, especially with adults, is so much conventional wisdom of education theory that nothing need be said here in its justification from that point of view. In the College context, it has additional advantages:

- a) committee discussions and decisions are an essential part of the decision-making process in NATO;
- b) the intensive work on the same subject in a multi-national committee furthers the process of "mutual understanding" - one of the explicit parts of the College mission;
- c) the committee serves as a focal point for social activities.

The committees are also utilized for a number of special events or projects during the period of the Course. At the time of the study, the latter included a debate between two selected committees on an important international issue; a general review of selected study periods, and other committee presentations on specific issues; a crisis management exercise utilizing a fictitious scenario; and practice in the techniques of international negotiating and decision-making.

3.6.5 Study Projects

During the second half of the Course, committees are charged with writing a group study (called study project) on a selected topic. The group study approach was chosen as differences in language proficiency made individual studies not feasible. Moreover, as already mentioned, a large amount of NATO work is done in committees, and NATO papers or studies are often produced in committees. Therefore, a group study is better suited in preparation of a NATO assignment than an individual paper.

The stated aim of the study projects is twofold:

- a) to provide some "useful evidence" of Members' work in writing for future references in the College and possibly for use by the International Military Staff at NATO Headquarters in Brussels, and
- b) to have their findings critically reviewed - in a seminar-type setting - by their colleagues and to who that they are able to defend their thesis.

The aim and the scope of study projects have been differently defined over the last years. There had been a tendency to develop them into genuine publishable research papers as well as the ten-

dency to limit them to a mere exercise in consensus-finding. Generally, one would probably agree on the judgment that the study projects have been, with varying quality, comprehensive, descriptive papers, useful as background material but not for analysis. They are not and cannot be genuine research papers because Members usually lack the theoretical background for the development of a research design, the time available is too short, the College has little primary source material and the Library is not research-oriented enough; in fact it has the character of a resource library, and is currently named accordingly.

But there is another aspect to the study projects and that is its consensus character. During committee sessions, time is spent in discussing a variety of topics in which national viewpoints are aired, clarified, modified and even changed through the medium of group interplay. This is perhaps the greatest strength of the College and the study project is a vehicle which can be used to facilitate such exchanges of ideas leading towards group consensus. The word 'consensus' should, however, not be overstressed in connection with the study projects because limitations of time tend to force an artificial consensus within committees in order to get the project completed in the time available. Nevertheless, within well-defined limits, the study project is a catalyst for group discussion and, therefore, plays a positive role in the understanding of the working of NATO.

4 THE PROBLEM

The NATO Defense College mission recognizes cognitive as well as affective learning objectives (37), as has already been mentioned. The task of conducting informative courses of study on a broad range of areas refers to the cognitive

ones. This placed the College on the level of a Senior Service or Defense College.

In most Western countries there is a distinctive line drawn between Staff Colleges and Defense Colleges. Staff Colleges place their efforts "towards developing rigorous and exacting instruction for selected officers in the essentials of command doctrine and staff operations for ground, sea and air warfare, as well as joined and combined operations to enable the armed forces ... to function effectively in pursuit of national goals"(38). Senior Service Colleges, on the other hand, serve quite a different purpose. "First, they provide officers whose career experience has been largely operational or specialized an opportunity to place their role as military men into a broader and more balanced perspective. Second, the Senior Service Colleges should be well springs of professional thought, through which officers can develop and expand their technical and professional military expertise"(39). In other words, "the training objective that underlies this purpose is that of preparing officers and civil servants ... for the professional part they will have to play in the formulation of public policy in the future, and to educate them further in the interaction of political, economic, strategic and social factors in shaping and constraining those policies"(40).

The affective learning objectives mainly relate to an implicit central aim of the College, the promotion of mutual understanding within the Alliance. When Laurence I. RADWAY, in 1957, examined the College in the context of a study on "Military Behavior in International Organizations" he came to the following conclusion:

"Relations among officers assigned to the College were strained by political disagreements, national pride and different econom-

ic, social and cultural traditions. The fragility of the Alliance made it difficult to counter these divisive influences by developing doctrine. For many reasons it also proved difficult to counter them by forging institutional, social and professional bonds. But despite these obstacles, 'NATO spirit' was more evident at the Defense College than at regional military headquarters where the game involved larger stakes"(41).

When in 1974 the College approached former students who had attended Courses 41, 42 and 43 (September 1972 - February 1974) and asked them about the usefulness of the College program for their present work within the NATO structure, 15 out of a total of 24 answers stressed that the Course "enhanced the ability of everyone to cope with problems of other regions, increased the mutual understanding and established friendships which will last many years not the least to the benefit of our Alliance"(42).

This statement clearly points to the main benefits as seen in former students' perspective on the basis of their experience within the integrated structure of NATO:

- a unique opportunity to learn at first-hand NATO countries national views on defense and foreign policy;
- the opportunity to make friends of different nationalities.

Sometimes reactions are even enthusiastic: "It (the Course) fired me with enthusiasm for the Alliance"(43).

This retrospective evaluation of the College may allow the conclusion that RADWAY's observation were no longer true in the mid-70s. On the other

hand, there obviously still exists the dichotomy between the relatively sheltered learning environment of the College, where no stakes are involved, and the hard realities of NATO Headquarters. Typical of this situation is the following statement: "Fortunately, and yet unfortunately ...we were basically a happy lot, open and to a degree uninhibited. We were able to talk freely on practically any subject without undue regard for national sensitivity. Criticism of national policies were all accepted objectively and this gave students greater insight into national approaches and philosophies. I said, however, unfortunately as this may have resulted in a false sense of security. National policies are firm policies and not open to discussion in NATO. They are not open to argument but only to adherence" (44).

But even a statement such as this, which probably reflects the realities of many assignments within NATO and which reinforces the last part of RADWAY's conclusions, is offset by the fact that in certain situations the realities of the College and of the Headquarters match. "As you perhaps know, Headquarters Land Forces Southeastern Europe experienced the brunt of the increased tension between two Allies (Greece and Turkey) during the recent Cyprus crisis and its resultant military and political friction between these two nations. Having some background concerning the inner workings of the Alliance which was provided by the College was of invaluable assistance to me in whatever contribution I made in attempting to mediate the differences. Without doubt, had I not attended the College and had opportunity to visit the various NATO countries and receive first-hand the views, rationale and problems facing the Alliance, I do not believe my contributions would have been nearly as objective or worthwhile" (45).

As far as the cognitive aim of the Course is con-

cerned, the survey of answers give little indication whether the Course has fulfilled its aim. Generally, former students acknowledge the high level of instruction and only a few complain that the Course "does little to prepare officers for the actual staff duties side of work in NATO Headquarters" (46).

It has already been mentioned that the Course is rather short, specifically when compared with national institutions with a similar mission. It is obvious that a Course of not even six months' length nevertheless allows for a considerable increase in knowledge. It is less obvious whether it allows for a significant change, or even a change at all, in the behavioral attitude of students where they, without losing their individual and national identity, become more able to understand different perceptions based on different economic, social and cultural traditions in the interest of reaching consensus which is essential for a democratic collective security community. This is the more important as the sense of community is rather a matter of "mutual sympathy and loyalties; of 'we feeling', trust and consideration; of at least partial identification in terms of self-images and interest; of ability to predict each other's behavior and ability to act in accordance with the prediction. In short, it was a matter of perpetual attention, communication, perception of needs and responsiveness. It was not a condition of static agreement, but a dynamic process - a process of social learning. It resulted in mutual responsiveness to the needs of the units involved in prospective integration, leading to appropriate political and economic action" (47).

Taking this definition as a starting point, one can already assume that indeed there are changes in students' perceptions as a consequence of the Course. What is lacking is empirical evidence.

5 HYPOTHESES

On the basis of the discussion in the previous chapter, the following hypotheses have been used to structure the analysis:

5.1 Broader and More Balanced Perspectives

While this is not expressly mentioned in the College mission, it is obviously implied not only by the designated level of the College as an institution of senior defense education but also by the intentions of the mission as derived from its history. This would mean, in general terms, that the College contributes to changing basically professional, in many cases political attitudes into one of openness for political methods and factors which, in democratic societies, condition security policy and this to enable them to participate in the formulation of public policy, particularly defense and security policy. In this context an increased ability to differentiate and to comprehend the complexity of the political process are of importance.

5.2 Insight into Other Alliance Nations' Policies and Philosophies

While it may be true that in NATO Headquarters national policies "are not open to argument but only to adherence", it is nevertheless important that those who work in those Headquarters can communicate with each other. Communication means also the "ability to predict each other's behavior and ability to act in accordance with that prediction", to use Karl DEUTSCH's words again. Moreover, there may be positions which are less bound to national positions and which require a perspective for compromise of national positions and for consensus. An understanding of the

political determinants of other nations may therefore be essential for an officer who may be required to perform important duties in or associated with NATO; it is therefore also essential for the achievement of the College mission.

5.3 Informative Courses of Study of Military, Political, Economic, Technological, Geographical, Sociological and Psychological Factors and Problems

The content of the Course offered by the College fulfills more or less the expectations of Members and their perceived needs for their future work in NATO Headquarters. The balance of the different areas is thought to be about right. The wish for more emphasis on one or the other field is marginal and does not affect the essence of the Course.

5.4 Mutual Understanding

To promote mutual understanding within the Alliance is more than the creation of an old boys' network. It includes the creation of a "we feeling", mutual trust and respect for each other. In an ideal case, it would probably lead to the creation of a sense of community based upon similar or identical basic values and "of at least partial identification in terms of self-images and interests". Mutual understanding therefore may well be the cement that holds NATO together as a security community, notwithstanding all perennial political and economic crisis. The NATO Defense College therefore has always emphasized this part of its mission, sometimes even to the detriment of academic activities. The achievement of this specific educational objective thus is crucial for the fulfilment of the College mission at large.

6 THE SAMPLES

As already reported in the chapter on the study's methodology, the main study refers to the data of the Members of two Courses: while Course 59 represents the primary sample, Course 64 served as a kind of "control sample" (48). Because Course 59 can be taken as a reasonably representative sample for an average. NATO Defense College Course (even the fact that since Course 61 Spanish Members have joined the College does not impact on its overall representativeness), it is sufficient to statistically characterize the make-up of Course 59 in detail here (49). The personal data of this sample show quite clearly the general problems the College faces when designing its Courses (see Table 1).

6.1 Description of Course 59/Course 64

The age of Members ranges from 30 - 55 years; while age in itself need not be a criterion, it nevertheless reflects experience. As the College builds part of its program on the experience of its Members, the different level of experience in the student body may be challenging but it is also problematic.

Most of the Members have a degree from a military academy or war college or a comparable institution or an academic degree from a civilian university. The latter group represents the majority (58 %). In a Course where 74 % have had a predominantly military career and where 76 % are serving military officers, this is rather a substantial figure. Generally, one can assume a very high educational level and it is safe to assume that the students of the NATO Defense College represent, if not yet an elite, in any case the group from which future elites are drawn. The mix between soldiers and civilians is approximately the ideal one; the College aims at

about 25 % civilians.

The experience in international military experience is much greater (52 % very well or well experienced, only 10 % inexperienced) than in international non-military cooperation (20 % very well or well experienced, but 38 % inexperienced). The majority is sent to the College from a national assignment. These data suggest a higher degree of integration within the Alliance in the military than in the non-military fields. This fact becomes even more evident taking into account that two-thirds of the civilians are diplomats who, by definition, should be well experienced in international non-military cooperation. There is obviously a need to introduce people who are earmarked for "important duties in or associated with the North Atlantic Alliance" into the theory and reality of international cooperation. Moreover, these data reinforce the broad, comprehensive and political approach which is underlying the concept of the College curriculum.

One of the major concerns of the College has been the fact that only a small percentage of graduates subsequently go to NATO or NATO-related appointments after the Course. Internal College statistics show that it was never more than 50 %. The issue has been discussed at length during a number of meetings of the Academic Advisory Board in the past as it seemed that the purpose of the College was at stake. The discussion showed that statistics were not refined enough to allow a viable evaluation. It is evident that the immediately following next assignment may say little about the long-term career prospects of Members and their eventual future assignments to Alliance-related jobs. Course 59 is not different from other Courses in this respect. The issue therefore remains open.

Table 1: Statistical Data on the Members of the Courses 59 and 64

Variable:		% Course 59 ¹⁾	% Course 64 ²⁾
A. Age	(1) up to 30	8 %	1.8 %
	(2) 31 - 35	26 %	5.4 %
	(3) 36 - 40	22 %	12.5 %
	(4) 41 - 45	30 %	32.1 %
	(5) 46 - 50	14 %	28.6 %
	(6) 51 - 55	—	16.1 %
	(7) 56 - 60	—	1.8 %
	no answer/missing	—	1.8 %
B. Married?	(1) yes	90 %	91.1 %
	(2) no	10 %	8.9 %
C1. Degree by Military Academy?	(1) yes	46 %	60.7 %
	(2) no	50 %	37.5 %
	no answer/missing	4 %	1.8 %
C2. University degree?	(1) yes	58 %	42.9 %
	(2) no	42 %	57.1 %
C3. Career up to now	(1) solely military	64 %	66.1 %
	(2) mainly military	10 %	7.1 %
	(3) both, civil and military	6 %	5.4 %
	(4) mainly civil	8 %	3.6 %
	(5) solely civil	12 %	17.9 %

1) percentages are based on the data of 50 of the 54 Members

2) percentages are based on the data of 56 of the 59 Members

Table 1: (continued)

Variable:		% Course 59 ¹⁾	% Course 64 ²⁾
C4.	(1) civil servant (dept. defense)	6 %	5.4 %
	(2) civil servant (other)	18 %	19.6 %
	(3) soldier	76 %	75.0 %
G1. Next assignment	(1) mainly national	56 %	55.4 %
	(2) mainly international	34 %	39.2 %
	(3) don't know	10 %	5.4 %
G2. Type of job	(1) mainly military	76 %	75.0 %
	(2) mainly civilian	22 %	23.2 %
	(3) don't know	2 %	1.8 %
G3. Last assignment	(1) mainly national/mil.	72 %	73.2 %
	(2) mainly national/civ.	14 %	19.6 %
	(3) mainly internat./mil.	6 %	1.8 %
	(4) mainly internat./civ.	8 %	5.4 %
H1. Experiences international military cooperation	(1) very well experienced	12 %	8.9 %
	(2) well experienced	40 %	32.1 %
	(3) moderately exp.	20 %	32.1 %
	(4) slightly experienced	16 %	7.1 %
	(5) not experienced	10 %	12.5 %
	no answer/missing	2 %	7.1 %
H2. . . . international non-military cooperation	(1) very well experienced	10 %	1.8 %
	(2) well experienced	10 %	16.1 %
	(3) moderately exp.	22 %	23.2 %
	(4) slightly experienced	18 %	21.4 %
	(5) not experienced	38 %	26.8 %
	no answer/missing	2 %	10.7 %

6.2 Language Characteristics

The self-assessment of the language characteristics shows that English is the predominant language as well in respect to actual proficiency as to needed proficiency (see Table 2). Proficiency is highest in the more passive modes (reading and listening) and lower in the more active modes (speaking and writing). During the Course, Members improved their English in listening, speaking and reading significantly. Astonishingly, there is a decrease in the proficiency of writing. It is difficult to say whether this is due to more critical standards in the post-Course evaluation or to the fact that only a small part of the College program demands that Members express themselves by writing.

There are no changes in the perception of the needed proficiency profile in English, which ranks between good and very good. Members think that they are up to this standard or even a little above it.

French is spoken less well and thought to be needed much less for a NATO appointment. Capabilities were between 'limited' and 'fair' at the beginning of the Course and did rise to 'fair' at the end of the Course, except for writing.

On the other hand, it must be admitted that, in the view of Members, French is seen as being of less importance for an integrated or NATO appointment in the post-Course evaluation. It is difficult to identify the reason behind this change of attitude. The only feasible explanation might be that, in the reality of the College as well as that of the NATO Headquarters which were visited during the tours, English was so dominant that the need for a knowledge of French became less apparent.

Table 2: Language Proficiency Profile (1) / Language Proficiency Needed for Integrated and for NATO Appointments (2). The Course Members (Course 59, 1981/82) were asked to self-rate (3) their language proficiency at the beginning (PRE) and at the end (POST) of the Course. The average proficiency ratings are shown in section "language proficiency rating". In addition to this, the Members were requested to rate (3) the language proficiency a person needs to be adequately prepared for integrated and/or NATO appointments. The average ratings are shown in section "needed language proficiency".

	"language proficiency rating"						"needed language proficiency"					
	English			French			English			French		
	PRE	POST	SIG	PRE	POST	SIG	PRE	POST	SIG	PRE	POST	SIG
Listening	3.88	4.28	!!!	1.86	2.26	!!!	3.62	3.68		1.92	1.58	!
Speaking	3.84	3.68	!!	1.42	1.82	!!!	3.40	3.36		1.66	1.40	
Reading	4.12	4.36	!!!	2.04	2.38	!!!	3.64	3.62		1.90	1.58	!
Writing	3.64	3.50		1.26	1.64	!!!	3.20	3.06		1.40	1.14	!

- 1) "According to your opinion, what is your language proficiency profile now? "
 - 2) "According to your personal opinion, what language proficiency does a Course Member need in order to be adequately prepared for integrated and/or NATO appointments? Please check the most appropriate language proficiency in this sense" (as stated in (3) below)
 - 3) 0: nil; 1: limited; 2: fair; 3: good; 4: very good; 5: excellent
- SIG:** significant differences between pre- and post-course average ratings are marked by "!" (! = 10 %-level; !! = 5 %-level; !!! = 1 %-level, t-test for dependent samples; SPSS-Procedure T-Test)

7 FINDINGS

The following chapter summarizes the findings of the systematic evaluation project. While the tables, to which references are made in this chapter, show the aggregated data of Course 59 only, the reader is reminded that the analyses of the data gathered in Course 64 confirmed the structure (50) of these results (see Chapter 2.3).

7.1 Broader and more Balanced Perspectives

The first hypothesis to evaluate is the assumption that the Course leads to a broader and more balanced perspective on politico-military issues. To measure changes in this respect, the importance given to different approaches to world peace, the causes of war and the assessment of the NATO-Warsaw Pact balance was used as indicator. The pertinent data are displayed at Tables 3; 3.1; 4 and 5.

Table 3 illustrates that there are no radical changes in the perception of those factors which contribute to a stable world situation. This could not have been expected given the age and experience of the sample. Moreover, views and opinions of the interviewed officers are rather varied already at the beginning of the Course. However, rather significant relative attitudinal changes are evident. Their general tendency goes towards the reinforcement of the importance given to political, economic and social factors while the military factor is seen as less important. The already very high identification with the Alliance is also reinforced.

Arms Control and a solution to the North-South problems are the two factors which have gained considerably in importance, while the need for a military superiority as a guarantee of world

peace has decreased in the students' perception significantly. The importance of this last factor had not been very high from the beginning and this may reflect the fact that NATO's self-perception as a defensive Alliance has by now become an integral part of the politico-military self-perception of its cadres. Nevertheless, the decrease in importance on this point obviously also reflects the conceptual approach of the College where the importance of the non-military power factors is emphasized.

A more detailed breakdown of the sample according to age, career and education shows, in general, the same tendencies outlined above (see Table 3.1). Where there are differences in attitudes, their explanation is rather evident. It could be expected that civilians rate the importance of 'trade, technical cooperation and economic interdependence' or 'arms control' higher than military officers would do. It could be expected that they are more balance-oriented. It could be expected that age had an influence on the openness towards certain problems with older students being more status-quo oriented. But the differences are much less than could be assumed at the outset though they are still significant. Age has an obvious influence on how the stabilizing role of military power is viewed. In this respect, views are so different that even a decrease in absolute terms does not bridge the gap between the generations. Differences of a slightly less magnitude, but nevertheless still significant, can be found between civilians and military officers in the already mentioned aspects of 'technical cooperation' and 'arms control'. This is reflected, as could be expected, in the judgment of the respective categories of military or civilian education. But differences are limited to these few fields and they are differences more in shade than in principle. None of the groups is so static in its

opinion that it would be unable to adapt to attitudinal changes. The potential for openness, for awareness of problems and for directional changes, varies in degree only.

From the point of view of the NATO Defense College in particular and of NATO in general, the most satisfying result which can be deduced from the data displayed in Table 3.1 is the evidence for the process of assimilation of attitudes and opinions which the Course is able to achieve. Differences in pre-Course attitudes are generally greater than in post-Course attitudes. While for instance, the item "efforts to achieve a balance of power" is rated between 76.5 and 100 at the beginning of the Course, the post-Course ratings show only a difference between 81 and 90 (51). The same figures for the item "trade, technical cooperation and economic interdependence" show a pre-Course rating between 39.1 and 84 against a post-Course rating between 66.7 and 90. The spread in the item "limiting access to nuclear weapons" decreases from between 35.3 and 72.7 to between 64.7 and 80 in the post-Course rating.

While all these data must be interpreted with care and while one has to be very careful with conclusions because of the smallness in number of some of the samples, it is nevertheless safe to assume that the Course is remarkably successful in achieving a convergence of attitudes and opinions which should facilitate cooperation later within the Alliance.

The assimilation process, moreover, tends towards eliminating extreme positions in favor of more balanced ones. Single case-explanations lose out against more differentiating views and policentric approaches. The same tendency can be found in the data shown in Table 4. Again, the spread narrows down from between 86 to 28 to between 79.6 and 36 (excluding the last item

"military per se"). The changes are not very significant in quantitative terms but they allow some conclusions when qualified. The sequence changes from (a) Power Politics, Scarcity of Resources, Political Factors, Nationalism, Ideological Differences, Arms Race, Prejudice, Gap between Rich and Poor Nations, to (b) Power Politics, Scarcity of Resources, Nationalism, Psychological Factors, Arms Race, Ideological Differences, Gap between Rich and Poor Nations, Prejudice. The relatively greater importance given to the more politically determined factors, which may cause a war in the post-Course views, indicate a more pragmatic and less absolutist attitude. The decrease in the importance of the psychological factors (fear, aggressiveness, etc.) and of the factor 'prejudice' can be taken as indicative for this development.

The most significant change in Table 4 is the change in the importance attributed to the need to bridge the gap between rich and poor nations to avoid conflict. This certainly reflects the fact that about one-fifth on the lecture program was dedicated to the problem, but, as sole cause, this certainly would be too simplistic an explanation. In the overall context of the data, it must be seen as an indication for a change in perspective. It is obvious that this problem does not fall within the parameters of traditional military thinking; the growing awareness for the issue must therefore also be the result of a broader and more balanced view with respect to the assessment of the conditions which determine political developments.

Changes in perspective can be indicated more substantially in terms of magnitude and direction. In this respect, the data displayed in Table 5 are of special interest. How do the Members of the NATO Defense College view the Soviet Union and the balance between the Soviet Union and the

Western Alliance? Do they think in absolute or pragmatic terms of reference? Do they differentiate or is their thinking dominated by an adversary perspective?

The data suggest an unequivocal answer. Members come to the College already with a rather pragmatic attitude. They see a Western superiority in economic power, technology, the capacity to produce food, ideology, morale of the people, people's identification with the political system and the personal happiness of the people. In their view the Soviet Union is superior only in conventional military power while there exists a balance in energy resources, nuclear military power, morale of the army, influence on the Third World, and the ability of the political system to cope with crisis.

The post-Course data show little or no change. It is, however, interesting to note that after the Course, more Members feel that the Warsaw Pact is superior in nuclear power. This can only be the result of a cognitive process. The significant increase in the number of those (from 54.2 % to 70 %), on the other hand, who think that the West is superior in respect to people's identification with the political system must probably be attributed to affective factors also. Little as the change may seem, it should not be underestimated as it also represents a significant increase in self-identification with the Western democratic system and reassurance of its viability.

In general, Members feel that NATO is superior or that there is a balance - but for one exception (conventional military power). The perspective of a rather significant NATO superiority and the rather conservative balance orientation are not only reinforced in the post-Course evaluation of these aspects but also in the answers to the question "what would be the optimal ratio between

the two Blocs in respect to the prevention of war" (line O in Table 5). An overwhelming majority of the students of the NATO Defense College view a balance as the optimal condition for peace. This is particularly true in respect to military power and to factors which might influence the crisis stability potential of a political system.

The real prevalence of the West is seen in economic and related power, where NATO superiority is judged to be total (economic power, technology and, to a lesser extent, influence on the Third World). Influence on the Third World is additionally the only factor where a change in absolute terms between pre-Course and post-Course attitudes could be measured. The data are so definitive that it is safe to conclude that Members view the economic/technological competition as the decisive battlefield of the future.

In sum, the evidence on the attitudes of the students at the NATO Defense College indicates a rather broad political approach from the beginning. Differences in age, career and education have less of an impact than was assumed. Those which do exist are, to a large extent, homogenized by the effect of the Course, an effect which is general in magnitude and direction.

Attitudes are varied and balanced. Views express a knowledge of the complexity of the political process decisions, judgments, therefore are not based on single case explanations. Changes between pre-Course and post-Course assessments tend to reinforce these characteristics. Factors which emphasize problematic areas gain in significance; the awareness of the complexity of issues increases.

Table 3: Importance of Approaches to World Peace; percentages of Course Members (Course 59, 1981/82) who assigned a high level of importance* to the respective approach in the rating done at the beginning (PRE) and at the end (POST) of the Course.

Statement	PRE	POST	D	SIG
Trade, technical cooperation, economic interdependence	60.0	72.0	+ 12'	
Narrowing the gap between rich and poor nations	42.0	56.0	+ 14	II
Strengthening of international institutions	40.0	52.0	+ 12	
Military superiority of NATO	55.1	42.9	- 12	II
Collective security through Alliance	88.0	94.0	+ 6	
Efforts to achieve a balance of power	82.0	81.6	0	
Arms control	64.0	77.1	+ 13	II
Solving the problems of energy	55.1	72.0	+ 17	I
Limiting the access to nuclear weapons	60.0	74.0	+ 14	
Efforts to understand the different ideological basis of action	58.0	58.0	0	

* The Course Members were asked to rate the importance of each approach by using the following "scale": 1 = extremely; 2 = very; 3 = moderately; 4 = slightly; 5 = not important. The percentages in the table refer only to the number of Members having checked either "extremely" or "very" important.

Abbreviations:

D: difference between the post- and pre-Course percentages
 SIG: significant differences between pre- and post-Course average ratings are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level; t-test for dependent samples; SPSS-Procedure T-Test)

Table 3.1: Importance of Approaches to World Peace. Table 3.1 shows the difference of ratings (1) in the following groups of Course Members, and for the pre- and post-Course situation.
 - age (1: less than 40; 2: more than 40. 1: 17 Members; group 2: 33 Members)
 - career (1: military; 2: civil. Group 1: 37 Members; group 2: 10 Members) (2).

Approach		Age		Career	
		1: up to 40	2: more	1: military	2: civil
Trade, technical cooperation, economic interdependence	PRE	41.2	69.7	54.1	80.0
	POST	70.6	72.7	67.6	90.0 !
Narrowing the gap between rich and poor nations	PRE	58.8	33.3 !	37.8	50.0
	POST	70.6	48.5	54.1	60.0
Strengthening of international institutions	PRE	29.4	45.5	46.0	30.0
	POST	47.1	54.6	56.8	30.0
Military superiority of NATO	PRE	41.8	62.5	55.6	50.0
	POST	23.5	52.1 !!	44.4	30.0
Collective security through Alliance	PRE	82.4	90.9	89.1	90.0
	POST	88.2	97.0	94.6	90.0
Efforts to achieve a balance of power	PRE	76.5	84.9	81.0	100.0 !!!
	POST	82.4	81.3	83.3	90.0
Arms control	PRE	70.6	60.6	59.5	80.0
	POST	76.5	77.4	72.0	100.0 !!!
Solving the problems of energy	PRE	35.3	65.6	51.4	77.8
	POST	52.9	81.8	73.0	70.0
Limiting the access to nuclear weapons	PRE	35.3	72.7 !!!	59.5	60.0
	POST	64.7	78.8	73.0	80.0
Efforts to understand the different ideological basis of action	PRE	58.8	57.8	54.1	60.0
	POST	64.7	54.6	59.5	40.0

Significant differences between the average ratings in the respective contrast groups are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level), significant differences between pre- and post-Course ratings (i.e. PRE vs. POST for each group) are marked by "*" (* = 10 %-level; ** = 5 %-level; *** = 1 %-level)

1) Percentages of Course Members considering the respective aspect either as "extremely important" or as "very important" (cf. table 3 for details).

2) Due to missing or ambiguous answers not all Members could be assigned to the contrast groups.

Table 3.1: Importance of Approaches to World Peace. Table 3.1 shows the difference of ratings (1) in the following groups of Course Members, and for the pre- and post-Course situation:
 - degree by military academy (1: yes; 2: not. Group 1: 23 Members; group 2: 25 Members) (2)
 - academic degree by College/University (1: yes; 2: no. Group 1: 29 Members; group 2: 21 Members)

Approach		Degree by Military Academy		Academic Degree by College/University	
		1: Yes	2: No	1: Yes	2: No
Trade, technical cooperation, economic interdependence	PRE	39.1	84.0 III	58.6	61.9
	POST	69.6 **	76.0	75.9	66.7
Narrowing the gap between rich and poor nations	PRE	39.1	44.0	44.8	38.1
	POST	56.5	52.0	48.3	66.7 *
Strengthening of international institutions	PRE	34.8	48.0	37.9	42.9
	POST	56.5	48.0	41.4	66.7 I
Military superiority of NATO	PRE	52.2	60.0	55.2	55.0
	POST	40.9	44.0	44.8	40.0
Collective security through Alliance	PRE	82.6	92.0	89.7	85.7
	POST	95.7	92.0	89.7	100.0
Efforts to achieve a balance of power	PRE	78.3	88.0	82.8	81.0
	POST	81.8	88.0	82.1	81.0
Arms control	PRE	69.6	60.0 **	65.5	61.9
	POST	66.7	88.0 I	77.8	76.2
Solving the problems of energy	PRE	52.2	58.3	50.0	61.9
	POST	73.9	68.0	69.0	76.2
Limiting the access to nuclear weapons	PRE	52.2	64.0	65.5	52.4
	POST	69.6	76.0	72.4	76.2
Efforts to understand the different ideological basis of action	PRE	52.2	60.0	62.1	52.4
	POST	65.2	48.0	55.2	61.9

Significant differences between the average ratings in the respective contrast groups are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level), significant differences between pre- and post-Course ratings (i.e. PRE vs. POST for each group) are marked by "*" (* = 10 %-level; ** = 5 %-level; *** = 1 %-level)

1) Percentages of Course Members considering the respective aspect either as "extremely important" or as "very important" (cf. table 3 for details).

2) Due to missing data or ambiguous answers not all Members could be assigned to the contrast groups.

Table 4: Importance of Factors/Forces as Causes of War; percentages of Course Members (Course 59, 1981/82), who assigned a high level of importance* to the respective force/factor in the rating done at the beginning (PRE) and at the end (POST) of the Course.

Factor/force	PRE	POST	D	SIG
Psychological factors of human nature (fear, aggressiveness, etc.)	64.0	59.2	- 5	
Prejudice	30.0	36.7	+ 7	I
Ideological differences	50.0	55.1	+ 5	
Nationalism	60.0	66.0	+ 6	
Power politics	86.0	79.6	- 6	
Gap between rich and poor nations	28.0	38.8	+ 11	I
Scarcity of resources (oil; foodstuffs; raw materials)	66.0	72.0	+ 6	
Arms race	41.7	56.0	+ 14	
Existence of the military per se	4.1	6.1	+ 2	

* The Course Members were asked to rate the importance of each factor/force by using the following "scale": 1 = extremely; 2 = very; 3 = moderately; 4 = slightly; 5 = not important. The percentages in the table refer to the number of Members having checked either "extremely" or "very" important.

Abbreviations:

D: difference between the post- and the pre-Course percentages

SIG: significant differences between pre- and post-Course average ratings are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level; t-test for dependent samples; SPSS-Procedure T-Test)

Table 5: Superiority of the Warsaw Pact (WP) or NATO, or Balance Both Sides?: For each aspect the first row (R) (1) shows the percentages of Course Members (Course 59, 1981/82) rating WP superior, a balance, or NATO superior; the second row (O) (2) gives the percentages of Course Members who feel that superiority of WP, balance of WP and NATO, or superiority of NATO were optimal to prevent a war in the long run. The table contains the percentages referring to the ratings done by the Course Members at the beginning (PRE) and at the end (POST) of the Course.

Aspects		Superiority of the Warsaw Pact (WP)				Balance				Superiority of NATO			
		PRE	POST	D	SIG	PRE	POST	D	SIG	PRE	POST	D	SIG
Economic power	R	0.0	2.0	+ 2		0.0	0.0	0		100.0	98.0	- 2	
	O	0.0	2.2	+ 2		34.1	30.4	- 4		65.9	67.4	+ 2	
Technology	R	0.0	2.0	+ 2		6.1	6.0	0		93.9	92.0	- 2	
	O	0.0	2.2	+ 2		31.1	22.2	- 9		68.9	75.6	+ 7	
Energy resources	R	34.0	32.0	- 2		46.0	56.0	+10		20.0	12.0	- 8	
	O	0.0	0.0	0		72.1	80.4	+ 8		27.9	19.6	- 8	
Capacity of produce food	R	0.0	2.0	+ 2		2.0	2.0	0		98.0	96.0	- 2	
	O	0.0	0.0	0		78.6	73.9	- 5		21.4	26.1	+ 5	
Nuclear military power	R	12.2	30.6	+19		63.3	59.2	- 4		24.5	10.2	-14	I
	O	2.1	0.0	- 2		66.0	70.2	+ 4		31.9	29.8	- 2	
Conventional military power	R	94.0	92.0	- 2		6.0	6.0	0		0.0	2.0	+ 2	
	O	2.2	2.2	0		87.0	84.8	- 2		10.9	13.0	+ 2	
Ideology	R	38.0	30.0	- 8		22.0	34.0	+12		40.0	36.0	- 4	
	O	2.4	0.0	- 2		66.7	58.1	- 9		31.0	41.9	+11	
Morale of the army	R	14.3	12.0	- 2		61.2	52.0	- 9		24.5	36.0	+12	
	O	0.0	2.3	+ 2		61.9	54.5	- 7		38.1	43.2	+ 5	
Morale of the people	R	2.0	10.0	+ 8		34.0	32.0	- 2		64.0	58.0	- 6	
	O	2.3	2.2	0		65.1	62.2	- 3		32.6	35.6	+ 3	
Influence on the "Third World"	R	26.0	16.0	-10		54.0	52.0	- 2		20.0	32.0	+12	
	O	2.3	4.5	+ 2		52.3	43.2	- 9		45.5	52.3	+ 7	
People's identification with the political system	R	22.9	8.0	-15		22.9	22.0	- 1		54.2	70.0	+16	I
	O	0.0	2.3	+ 2		50.0	56.8	+ 7		50.0	40.9	- 9	
Ability of the political system to cope with crises	R	36.0	42.0	+ 6		28.0	26.0	- 2		36.0	32.0	- 4	
	O	0.0	0.0	0		76.7	81.8	+ 5		23.3	18.2	- 5	
Personal happiness of the people	R	0.0	4.0	+ 4		10.2	4.0	- 6		89.8	92.0	+ 2	
	O	2.3	0.0	- 2		86.0	79.5	- 7		11.6	20.5	+ 9	

Abbreviations:

D: difference between post- and pre-Course percentages

SIG: significant differences between the pre- and post-Course ratings are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level; McNEMAR test; SPSS-Procedure NPAR TESTS)

- "If you think about the Warsaw Pact (WP) and NATO -- is there a balance or is there a superiority of one side -- of WP or NATO, respectively?"
- "After having evaluated the aspects on the dimension 'superiority/balance', please go through the list a second time. Think about each aspect and mark the condition of superiority or balance with an 'O' (for optimal), which you consider to be the best to prevent a war in the long run" (an example was outlined in the questionnaire).

7.2 Insight into other Alliance Nations' Policies and Philosophies

The character of NATO as an Alliance of sovereign nations and not a supranational authority is often misunderstood, not only by the general public but also by people who worked with the Alliance and even within the Alliance. Popular misgivings like "why does NATO not solve the Greek-Turkish dispute" or "why does NATO not decide to standardize its weapon systems" are expressed by quite a few Members earlier during each Course. It is therefore important to stress the fact that it is not the Alliance which takes decisions but the governments of the Alliance nations. The basis of these government decisions will be national interest, the specific political philosophy, a specific political culture and tactical political considerations. To learn to understand to live with the dichotomy between the need for collective efforts and a decision-making process based on individual national decisions must be one of the major aims of an institution such as the NATO Defense College.

To measure a change in attitude in this respect the field of defense planning has been chosen for obvious reasons, as it represents an area where collective approaches promise the greatest political, military and budgetary gains (see Table 6). The question raised for this purpose had a two-fold dimension: a more general political dimension and a technical/organizational one.

The most astonishing result, on the first view, seems to be the fact that during the Course the importance of national goals has increased considerably. This seems to contradict the result hitherto obtained as it could be interpreted as a reinforcement of the national perspective, a result which would be contrary to the intentions of the College. In the context of the overall

data, another interpretation is more probable. If Members have understood the character of the Alliance, it would be logical that they should draw the consequences and acknowledge the importance of national goals for the decision-making process of NATO and for the achievement of common goals. Therefore, it is more probable that this change in perceptions reflects only the growing understanding that NATO is not a supranational institution.

In this context it is interesting to note that, while a rather substantial majority of the students think that political consideration limits the effectiveness of military planning, nevertheless there is a slight decline in their number at the end of the Course. This may be a recognition of the political dimensions of the Alliance and a growing perceptivity for the parameters of politically determined decisions.

In consequence, the already high initial consensus on the more technical dimension of Alliance cooperation increases even more. In the post-Course rating, 98 % of the Members vote for standardization and interoperability to maximize resources and embrace operational readiness and 94 % think that rapid reinforcement and stock piling represent a valid approach to linking Transatlantic partners. This result is not surprising. It reflects not only the education and experience of most of the students but it also probably reflects the impact of the Course, i.e. the recognition that within the framework of the given political and economic conditions more efficiency in Alliance defense planning can be achieved primarily by technical means.

The last two items in Table 6 aim at measuring the perspective on burden-sharing. The results are consistent. While the percentage of those who think that economic contributions must be shared

equally within the Alliance increases from 54 % to 66 %, the number of those who hold the opinion that the voice in Alliance matters should not be obscured by consideration of strength, size and richness decreases from 62 % to 48 %. Changes reflect the ongoing discussion within the Alliance which is, of course, reflected in the College program. The preference for a more equitable sharing of the common defense burden is quite clearly an indication of less national and more Alliance-oriented attitudes. The preference for the expansion of the political influence of some nations in Alliance matters need not challenge the formal system of NATO (i.e. the necessity that decisions be based upon a consensus of all the sovereign nations which are partners of the North Atlantic Treaty). It is, much more probably, the result of the recognized fact that influence is weighted and ought to be weighted in the process which leads to a collective consensus.

In sum, the Course reinforces the perceptivity for the character of NATO as an Alliance of sovereign nations in which the decision-making process has to balance national goals acceptable to all. Hence, the political limitations of effective defense planning are seen but also accepted. The increase in the value given to more technical improvements can be seen as accepting the fact that in this field positive results are more likely. Burden-sharing grows in importance together with a differentiating view on the role of individual nations in the Alliance. In general, it can be said that the Course contributes to reinforcing the Alliance orientation of its Members.

Table 6: Importance of Certain Factors to Defense Planning; percentages of Course Members (Course 59, 1981/82), who agree* with the respective statement in the rating done at the beginning (PRE) and at the end (POST) of the Course.

Statement	PRE	POST	D	SIG
National goals are the most important consideration in overall defense long term planning	42.0	57.1	+ 15	
Standardization and interoperability offer an opportunity to maximize future resources while still enhancing operational readiness	90.0	98.0	+ 8	
Political considerations limit the effectiveness of multinational military planning	86.0	82.0	- 4	
Rapid reinforcement and stockpiling represent a valid approach to linking trans-Atlantic partners	87.8	94.0	+ 6	
Economic contributions must be shared equally within an Alliance	54.0	66.0	+ 12	
All countries regardless of strength, size and richness deserve an equal voice in Alliance matters	62.0	48.0	- 14	!

* The Course Members were asked to respond to each statement by using the following "scale": 1 = strongly agree; 2 = agree; 3 = undecided; 4 = disagree; 5 = strongly disagree. The percentages in the table refer to the number of Members having checked either "strongly agree" or "agree".

Abbreviations:

D: difference between the post- and pre-Course percentages
 SIG: significant differences between pre- and post-Course average ratings are marked by "!" (! = 10%-level; !! = 5 %-level; !!! = 1 %-level; t-test for dependent samples; SPSS-Procedure T-Test)

7.3 Informative Courses of Study of Military, Political, Economic, Technological, Geographical, Sociological and Psychological Factors and Problems

The Members' evaluation of the Academic Program in the double perspective of NATO and their individual career is shown in Table 7. As could have been expected, there exists a considerable basic divergence between Alliance and career values. Expectations on the value of the Course are much lower under a career perspective than under Alliance perspectives and this divergence is, even if slightly, reinforced by the effect of the Course in general. The reasons for this attitude can most probably be traced to two main factors:

- 1) military and civilian government officials spend most of their career in national assignments; the evaluation of their performance therefore depends largely upon national criteria and much less on their capability to perform in an international context; and
- 2) performance is evaluated more in terms of technical/operational efficiency than in terms of general education and skills needed to successfully cooperate in an Alliance.

It might be appropriate to remember that this is exactly the "raison d'être" of the NATO Defense College. General Eisenhower's initiative, which led to its establishment, stemmed from the lack of preparation for international cooperation of his senior staff officers.

Expectations are rather high already at the start of the Course. In order of preference Members

expect: to learn about the ability of the Alliance to cope with crisis (98 %); to get a better understanding of the problems of the Alliance (96 %); to be confronted with the threats the Alliance may have to cope with in the future (94 %); to learn about the impacts of politics on the development of NATO (94 %); to be informed on the essential conditions ensuring the survival of the West (92 %); to understand the aspects of the Warsaw Pact's possible superiority (92 %); to analyze whether political stability or change influence the Alliance (88 %) and how the economic crisis impacts upon it (84 %); to discuss the NATO mission (84 %); to hear about the problems concerning the relation between the military and the political system (80 %); to learn about the consequence of arms control (78 %) and the impact of the energy crisis on the Alliance (78 %); to understand the differences between the European Allies and the United States (76 %); to discuss the consequences of adding new members to the Alliance (76 %) and to analyze the future development of communism (74 %).

Table 7: Importance of Certain Topics as Subjects of Study at NDC* and Importance for Career.

The first section ("Importance of Topic") shows the percentages of Course Members (Course 59, 1981/82), who considered dealing with this topic at NDC as "very important" or "important". The second section gives the percentages of Course Members who considered this topic as important for their personal career. The percentages refer to the ratings done at the beginning (PRE) and at the end (POST) of the Course.

Topic	Importance of Topic				Career Importance			
	PRE	POST	D	SIG	PRE	POST	D	SIG
Better understanding for the problems of the Alliance	95.9	100.0	+ 4		77.3	74.5	- 3	
Discussion of the NATO mission	83.7	96.0	+ 12	I	53.5	61.7	+ 8	
Threats the Alliance may have to cope with in the future	94.0	98.0	+ 4		59.1	61.7	+ 3	
The ability of the Alliance to cope with crisis	98.0	98.0	0		70.5	59.6	- 11	
The impact of politics on the development of NATO	94.0	94.0	0		47.7	48.9	+ 1	
Consequences of arms control	78.0	88.0	+ 10	I	29.5	48.9	+ 19	II
Differences between the European Allies and the United States	76.0	90.0	+ 14	I	47.7	48.9	+ 1	
Information concerning the ideological bases and differences of NATO and Warsaw Pact	76.0	82.0	+ 6		38.6	42.6	+ 4	
The impact of economic crisis on the Alliance	84.0	92.0	+ 8	I	40.9	40.4	0	
Aspects of possible superiority of the Warsaw Pact	92.0	90.0	- 2		43.2	40.4	- 3	
The impact of the energy crisis on the Alliance	78.0	92.0	+ 14	I	34.1	34.0	0	
Essential conditions ensuring the survival of the West	92.0	100.0	+ 8		45.5	31.9	- 14	
Problems concerning the relation between the military and the political system	80.0	69.4	- 11	I	45.5	30.1	- 15	
Political stability/change as a source of influence on the Alliance	88.0	92.0	+ 4		22.7	29.8	+ 7	
The consequences of adding new members to the Alliance	76.0	82.0	+ 6		36.4	29.8	- 7	
The future development of communism	74.0	80.0	+ 6		29.5	23.4	- 6	
Ideological difference as a possible threat to the Alliance	66.0	68.0	+ 2		20.5	21.3	+ 1	
Scientific approaches to solve conflicts	52.0	46.0	- 6		25.0	21.3	- 4	
Nationalism as a threat to the Alliance	52.0	40.0	- 12		22.7	17.0	- 6	
The impact of different access to nuclear military power within the nations of the Alliance	57.1	60.0	+ 3		23.3	12.8	- 10	I

* The Course Members were asked to check the general importance of each topic by using the following "scale": "Dealing with this topic at NDC I consider as: 1 = very important; 2 = important; 3 = not so important; 4 = unimportant". After having completed this rating, the Members were asked to mark those topics in the list, which they considered important for their personal career.

Abbreviations:

D: difference between the post- and pre-Course percentages

SIG: significant differences between pre- and post-Course average ratings are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level; t-test for dependent samples; SPSS-Procedure T-Test)

The least importance is given to the following topics: nationalism as a threat to the Alliance (52 %); scientific approaches to conflict resolution (52 %); the impact of different access to nuclear military power within the nations of the Alliance (57 %) and ideological differences as a possible threat to the Alliance (66 %).

With a few exceptions these expectations have been completely met and even surpassed. In the perspective of Members, all of them do understand the problems of the Alliance better and know the essential conditions for the survival of the West. Almost all of them find that the NATO mission had been discussed sufficiently (96 %), that they know the threats the Alliance may have to cope with in the future (98 %) and the ability of the Alliance to cope with crisis (98 %).

Significantly increased in their importance for the College curriculum are the following topics: discussion of NATO mission (+ 12 %); consequences of arms control (+ 10 %); differences between the European Allies and the United States (+ 14 %); the impact of the economic crisis on the Alliance (+ 8 %) plus the impact of the energy crisis (+ 14 %). All of these topics are somewhat interrelated. They have to be seen against the background of the actual political situation and the state of the Alliance in the time during which Course 59 took place (September 1981 - February 1982).

During 1981, a deep and disturbing crisis within the Alliance seemed to evolve when East-West relations and the related instruments of policy became contentious issues. While strains in the Western Alliance were no new surprising facts, policy differences between Member nations had remained manageable but now this crisis had acquired a new quality. "What did seem unbridgeable was the public mood on both sides of the Atlan-

tic. And governments, instead of demonstrating through their behavior the continued relevance and vitality of the Alliance, followed this mood and so appeared to confirm it. They thus suggested a degree of disarray which could not but provide apparent justification for the growing popular scepticism about the Western Alliance" (52). Factors which contributed to the disarray of the Alliance were, firstly, European doubts about the seriousness of the new U.S. Administration in the conduct of arms control negotiations, which sparked off the political as well as the public nuclear debate with all its consequences. Secondly, in 1981, Western economies still stagnated under low or no growth. The economic recession was straining the foreign policy consensus that had existed within the Western countries over the past thirty years, the energy crisis being part of the problem. The changes in Members' perceptions reflect exactly the ingredients of the above described crisis in Alliance relations; the state of the Alliance in general, European-U.S. relations, arms control, i.e. the nuclear debate, the economy and the energy crisis.

A specific case is the increase in importance of arms control endeavors. It is the only item which has increased significantly from a career point of view as well. As there are no changes in respect to the other variables of the actual political situation, the change must be attributed to a different factor. The most likely explanation would be that the College succeeds in making the majority of the students aware of the long-term interrelationship between arms control and security policy, in which defense programs and weapon system modernization plans are intrinsically linked with arms control efforts as best illustrated by NATO's dual-track decision of December 1979. This linkage is likely to remain a constant feature of security policy and defense

planning. Knowledge of the consequences of arms control proposals for military planning is therefore seen as growing in importance.

Only very few topics decrease in importance: problems concerning the relationship between the political and the military system (- 11 %); nationalism as a threat to the Alliance (- 12 %); scientific approaches to conflict resolution (- 8 %). It is difficult to assess the reasoning behind these changes; any interpretation should therefore be taken with caution, specifically as these findings were not replicated in the analyses of the data of Course 64.

Both the civilian/military relationship and nationalism ratings are probably influenced by the specific human relationships in the College. Military and civilian officers of different nationalities are working together on common projects in the closely knit social net of the College. The common purpose and the need to seek consensus make the borders of professional specifics transparent. The amalgamation of different professional and national perspectives leads to accepting differing positions in which communication leads to a reduction in magnitude of problems. The change in attitude must also be attributed to the general effects of the Course as outlined in the previous parts of the findings. The increase in Alliance-oriented thinking must lead to a decrease in the importance of factors such as civil/military problems and nationalism. The change probably has a cognitive element as well: the rational recognition of the fact that in the historical context of the Alliance neither problems of civil/military relations nor nationalism are any longer decisive political forces.

The reasons for the decrease in the importance of scientific approaches to conflict resolution are

very difficult to trace. The College does not introduce its students to this field directly, for instance, via lectures. The change therefore can only be attributed to the indirect effect of the Course which, in this case, would mean the more pragmatic and less theory-oriented approach which has been chosen.

In sum, the expectations of Members in regard to the College curriculum are met or even surpassed. Changes indicate a growing awareness for problematic developments within the Alliance, specifically in areas of actual concern, the growing importance of arms control for security policy and defense planning and a diminishing concern for more parochial aspects like nationalism and civil/military differences.

7.4 Mutual Understanding

The NATO Defense College is charged with promoting mutual understanding within the Alliance. The hypothesis on which this study is based in this respect is that the achievement of this specific educational objective is crucial for the fulfillment of the College mission at large. The quantitative measurement of a rather ambiguous and not clearly defined educational goal like 'mutual understanding' meets with some difficulties as its components are largely affective. The cognitive component is almost negligible. Therefore it has been decided to use the overall Course experience as a scale with which to measure the success or failure of the College in this respect (see Table 8).

The analysis of the data displayed in Table 8 has to start with the statement that, in general, Members evaluate their Course experience highly positive. The findings in this respect are unequivocal and need no further interpretation. Critique is therefore relative and not as it has

been measured against rather high expectations. It does not contest the viability of the Course.

Expectations are the highest in areas which are dominated by inter-human relations: making new friends (100 %); increased understanding of national differences in perspectives and approaches (100 %); getting useful experience in cooperation (100 %) and international cooperation (100 %); a positive social life integrating all students (94 %); a general openness, a climate encouraging critique (90 %). These expectations have been almost entirely met. The small decrease in the post-Course evaluation is insignificant.

The human climate in the College is judged to be positive even in areas where expectations were less high: integration of civil and military perspectives and approaches; more understanding between economically more or less powerful nations; enough time for the family and for exploring Rome and Italy.

Critique focusses on the more intellectual academic performance of the College, particularly on the intensity of intellectual work (- 50 %); the competence of the Faculty (- 47 %); the study climate (- 42 %), and the challenge to deal with difficult problems (- 42 %). It may be that expectations here were too high from the beginning, i.e. that students expected an academic level of instruction that the College cannot and does not intend to provide. Nevertheless, the critique must be taken seriously because its magnitude identifies problems.

If the level of intellectual work is much below than expected, the fault cannot lie on the lecture program nor the quality of the lecturers. The majority of the students (pre-Course 90 %, post-Course 98 %) found that the studies dealt with relevant issues, 12 % thought that the lec-

Table 8: Expectations at the Beginning and Experiences at the End of the Course: The Course Members (Course 59, 1981/82) have been asked to rate their personal expectation concerning various aspects of the forthcoming Course on the following "scale": 1 = yes, certainly; 2 = yes, probably; 3 = cannot say; 4 = no, probably not; 5 = no, certainly not. The percentages in column "PRE" refer to the number of Course Members having expected this (i.e. having checked either "yes, certainly" or "yes, probably"). At the end of the Course (POST), the Members were asked to check if (and to what extent) the statements in the list adequately describe their experience at the NDC. The following "scale" was used this time: 1 = strongly agree; 2 = agree; 3 = cannot say; 4 = disagree; 5 = strongly disagree. The percentages in column "POST" refer to the number of Course Members, who agreed with this description of their experience (i.e. checked either "strongly agree" or "agree").

Aspect	PRE ("expectation")	POST ("experience")	D	SIG
Having to cope with language problems I had myself	54.0	36.0	- 18	II
Having to cope with language problems the other students had	50.0	65.3	+ 15	II
Getting useful experiences concerning international cooperation	100.0	95.9	- 4	
Intensive intellectual work	78.0	28.0	- 50	III
Gaining practical knowledge	84.0	73.5	- 10	II
Dealing with difficult problems	76.0	34.0	- 42	III
Making new friends	100.0	96.0	- 2	
More scientific than practical approaches to problems	42.0	30.0	- 12	
Critical evaluations of my own views and positions	82.0	67.3	- 15	III
A generally adequate evaluation of my competence by the members of the faculty	54.0	22.0	- 32	III
A generally adequate evaluation of my competence by other students	50.0	38.0	- 12	
Increase of my understanding for national differences in perspectives and approaches within the Alliance	100.0	96.0	- 4	
All in all a very profitable outcome with respect to my career	76.0	66.0	- 10	
The course as a good test concerning my qualification and suitability for appointments in NATO	70.0	70.0	0	
Getting used to deal with somewhat controversial issues	74.0	66.0	- 8	

Table 8: (continued)

Aspect	PRE ("expectation")	POST ("experience")	D	SIG
In general a very profitable outcome with respect to my next assignment	64.0	58.0	- 6	
A generally positive experience concerning cooperation	100.0	95.9	- 4	
Enough time to explore some of Rome and Italy	78.0	79.6	+ 2	
Sufficient time to take care of my family (please do not answer if you are (here) without family)	67.9	67.7	0	
A positive social life integrating all students	94.0	92.0	- 2	
A substantial number of rather uninteresting lectures	20.0	32.0	+ 12	II
Having to study quite a lot of practically irrelevant issues	4.0	2.0	- 2	
A better understanding for scientific approaches to solving problems	54.0	26.0	- 28	III
Many discussions without useful outcomes	12.0	20.0	+ 8	I
An informal grouping of students having the same language or nationality	14.3	26.5	+ 12	
A very competent faculty	78.0	30.6	- 47	III
A study climate similar to university climate	64.0	22.4	- 42	III
A somewhat difficult integration of "civil" and "military" students' viewpoints and approaches	26.0	22.0	- 4	
Some difficulties of understanding between students from economically more powerful and economically less powerful nations	34.0	10.2	- 24	II
A general openness, a climate encouraging critique	90.0	86.0	- 4	I

Abbreviations:

D: difference between post- and pre-Course percentages
 SIG: significant differences between pre- and post-Course average ratings are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level, t-test for dependent samples; SPSS-Procedure T-Test)

tures were more interesting than they had expected. Moreover, two-thirds of the Course feel that the challenge to deal with controversial issues had not been avoided (- 8 % from pre-Course rating). The critique therefore cannot be based on the lack of relevance or the lack of breadth. The only possible explanation would be that students see a lack of depth. It is difficult to decide whether this lack of analytical depth is a variable or an invariable quantity, i.e. whether it can or cannot be changed within the parameters of the College mission and of the constraining factors which determine its organization and curriculum (time, language problems, facilities, unique international character, importance of consensus-building). The issue 'breadth versus depth' has been discussed in the College and with its Academic Advisory Board intensively. Taking all circumstances into account, a consensus was reached whereby the present Course structure, which indeed favors breadth over depth, serves the Alliance better than any other approach.

Another major problem of the NATO Defense College seems to be the competence of the Faculty. The evaluation in this respect is decisively negative. There may be different reasons for this assessment. At first there is the fact that no introductory program existed to train the Faculty Advisors when they took up their job; more than half of the Faculty for Course 59 were new. Secondly, the College policy regarding the role of the Faculty Advisors in Committee Work has fluctuated from management to management. During the time of the study, Faculty Advisors were expected to keep a low profile in their relation with Course Members. Generally speaking, their role was only vaguely defined, and some felt insecure about their concrete tasks and responsibilities (53). A third, important factor may be the capitals' selection policies: their willing-

ness - or the lack of it - to make suitable personnel available for the NDC Faculty has always been a crucial factor. In theory, the Commandant informs nations about an opening; nations nominate and the Commandant selects. Major selection criteria is past attendance of the Course and a qualification that the nominee is "suitable as Faculty Advisor". In the majority of cases, the practice is different. Nations simply replace the outgoing Faculty Advisors by sending Members on the Course prior to their assignment on the Faculty, thus forcing the College to disqualify and not to qualify. Because of the repercussions of a disqualification, potential for competence instead of actual competence is often accepted. Together with the high turnover in the Faculty, this increases the shortcomings of the on-the-job training. In general, it can be concluded that the competence of the Faculty is a problem area to which the College need pay attention. More concrete and specific selection criteria might be a first step to overcome the problem.

The NATO Defense College is not a university; it is an institution of higher defense education which is determined by quite different aspects. As most of the officers - at least the military - have already attended a national institution of higher defense education, they should be aware of the different climate in such institutions. It is therefore extremely astonishing that the initial expectations in this respect were so high. One of the reasons could be that a 'university climate' in a mid-career perspective is equated with 'sabbatical leave'. If this were the case, the negative assessment might be based less on objective criteria but more on the fact that the five and a half months at the College had not been a sabbatical lotus-land but a place where serious effort had been demanded. The assessment might also reflect the fact that for some students, particularly native speakers, a more in-

dividualistic, less group-oriented structure of the course would have been more challenging, i.e. they might prefer intellectual analysis to the need for group-consensus. It is difficult to see how the College could resolve the underlying dichotomy. As other Defense Colleges, it has to find a balance in its program between the extremes of unstructured academic freedom and un-academic rigidity; maybe this balance could be optimized.

The fact that a significant number of Members did feel that they were not challenged enough to "deal with difficult problems" may have to do with the issue of breadth versus depth. The need for consensus with its tendency to agree on the lowest common denominator may also have had an impact on the evaluation of this item. Moreover, there is a problem of communication - or more concrete, a problem of language - which sometimes makes it difficult to analyze problems thoroughly.

The data on language problems confirm this assumption. While the number of students who felt they themselves had to cope with language problems decreased from 54 % to 36 % - an evaluation which is consistent with the self-assessment shown in Table 2 - the percentage of those who found it difficult to cope with the language problems of others increased from 50 % to 66 %. This may be a rectification of the self-assessment but it may also reflect problems of intensive communication and, therefore, of the problem of dealing substantially with "difficult problems". Nevertheless, some thought should be given to the possibility of enriching the Course with some problem-solving element. The recent introduction of a workshop on decision-making in international policy may indicate the direction. This may also help to better fulfill the indicated desire for a better understanding of scien-

tific approaches to problem-solving (- 28 %).

Another field where expectations are not completely fulfilled is the feedback on performance, views and positions. Members feel that there should have been more feedback generally (- 15 %), from fellow students (- 12 %) and from the Faculty (- 32 %). The figures in respect to members of the Faculty are probably influenced by the generally negative evaluation of their competence; therefore the overall magnitude of the disappointment must be seen as being about 15 %. This does not surprise us as feedback on competence, positions and views are influenced by the intended overriding focus of the Course on balance and consensus. This College intends to evaluate its students primarily not in absolute terms but in relation to the Alliance. This aim probably is achieved as corroborated by the generally positive evaluation and specifically by the evaluation of the usefulness of the Course for future assignments and career prospects.

70 % of the Members expected the Course would be a good test concerning qualification and suitability for appointments in NATO. None was disappointed. On the background that only 34 % of the sample (with 10 % 'do not know') were earmarked for an international assignment after the Course, these figures are rather impressive. The same is true with respect to the 58 % (- 6 %) who feel that the Course has been very profitable for their next assignment.

It is not astonishing that under career prospects the Course is rated slightly less positive. One should not forget: the NATO Defense College Course is not a career Course in the sense of most national definitions. Nevertheless, even in the post-Course perspective, two-thirds of the Members judge that their expectations of a very profitable outcome in respect to their career has

been met (- 10 %).

Mid-career courses, such as the one at the NATO Defense College, have the general objective to stimulate interest. Table 9 indicates how far the College has succeeded in this respect. Members were asked about their interest in certain areas of science. The data show no substantial changes. Tendencies are largely reinforced, only the interest in education increases significantly. The importance of these areas from a career point of view reveals different priorities. How do the Members then, in general, evaluate the different components of the College's mission and its concrete reflection in the Course program? As Table 10 shows, it is indeed the promotion of mutual understanding that rates the highest priority (mean 2.21) followed by the study of the political (2.42) and military (3.25) factors that affect or may affect NATO. Geographical (6.12) and technological (6.62) factors are judged of lesser importance. With one exception, the priorities of Members are matched with the priorities of the Academic Program. Sociological factors are seen to be even more important (5.38) than psychological factors (5.71), despite the fact that the former ones constitute only an implicit part of the College curriculum. This is the only case where there seems to be a gap between Members' perceptions and the realities of the Course.

In sum, pre-Course expectations on the NATO Defense College Course are very high, nevertheless they are met to a very large extent. The success is total in all areas that imply human relations and international cooperation. There is no doubt that the College indeed promotes mutual understanding. The Course is felt to be an important prerequisite for future assignments, particularly in the context of NATO but also in respect to career prospects. Critique focusses on the more intellectual academic performance of the

College and does not always take into account the invariable constraining factors that determine organization and curriculum. Nevertheless, improvements might be feasible particularly with respect to the competence of the Faculty and the need for more problem-solving activities.

Table 9: Interest in and Career Importance of Certain Areas of Science:
The first section ("interest in area") shows the percentages of Course Members (Course 59, 1981/82) who found the respective area of science either "very interesting"(1). The second section ("career importance of area") gives the percentages of Course Members having considered the area as either "very important"(2) or "important" for their personal career. The percentages refer to the ratings done at the beginning (PRE) and at the end (POST) of their Course.

Area	Interest in area				Career importance of area			
	PRE	POST	D	SIG	PRE	POST	D	SIG
Education	62.0	76.0	+14	I	74.0	69.4	- 5	
Military	94.0	96.0	+ 2		88.0	92.0	+ 4	
History	96.0	96.0	0		60.0	57.1	- 3	
Economy	86.0	90.0	+ 4		72.0	74.0	+ 2	
Technology	78.0	82.0	+ 4		71.4	76.0	+ 5	
Psychology/Sociology	66.0	78.0	+12		64.0	62.0	- 2	
Geography/Geology	66.0	72.0	+ 6		40.0	46.0	+ 6	
Languages	80.0	87.5	+ 8		70.0	72.0	+ 2	
Law/Jurisprudence	50.0	44.9	- 5		32.0	36.0	+ 4	
Politics	96.0	93.9	- 2		82.0	72.0	-10	I

(1) complete "scale": 1 = very interesting; 2 = uninteresting; 3 = not so interesting; 4 = uninteresting.

(2) complete "scale": 1 = very important; 2 = important; 3 = not so important; 4 = unimportant.

Abbreviations:

D: difference between pre- and post-Course

SIG: significant differences between pre- and post-Course average ratings are marked by "I" (I = 10 %-level; II = 5 %-level; III = 1 %-level; t-test for dependent samples; SPSS Procedure T-Test)

Table 10: Importance ranking of 8 factors and problems named in a definition of the NDC Mission (24 randomly chosen Members of Course 59, who participated in the post-course interview, were asked to select the most important factor/problem (rank 1), the second important factor/problem (rank 2) etc. Each factor/problem was written on a card, and the 8 cards were presented in a random order. The ranking was introduced with the following instruction: "The general aim of the NATO Defense College – its Mission – is defined (cf. Course Manual): '... to conduct informative Course of study of (1) military, (2) political, (3) economic, (4) technological, (5) geographical, (6) sociological and (7) psychological factors and problems which affect or may affect the North Atlantic Treaty Organization, for selected personnel who may be required to perform important duties in or associated with the North Atlantic Treaty Organization and (8) to promote mental understanding within the Alliance'. According to your personal point of view now, at the end of the Course, what factor or problems are most important? The eight factors and problems named in the definition are typed on these cards. Please first select the card with the factor or problem you consider to be most important, then the second important, and so forth."

Table 10 shows the individual ranks for the factors/problems determined by this procedure (lines 1 to 24), and the mean rank (on the average, "mutual understanding" is considered to be most important, whereas "technological factors and problems" are looked upon as least important in the given set of eight factors and problems).

Course Members	Factors/Problems							
	(1) military	(2) political	(3) economic	(4) techno- logical	(5) geogra- phical	(6) sociolo- gical	(7) psycho- logical	(8) mutual underst.
1	5	4	2	6	7	3	8	1
2	2	3	5	6	4	8	7	1
3	6	4	5	8	7	2	3	1
4	3	2	6	8	7	4	5	1
5	2	1	4	6	8	7	5	3
6	4	2	3	5	6	7	8	1
7	1	3	4	6	8	5	7	2
8	2	3	5	4	8	6	7	1
9	3	2	4	7	8	5	6	1
10	2	3	5	8	7	6	4	1
11	7	2	3	8	6	4	5	1
12	3	1	2	6	8	7	5	4
13	2	1	3	6	7	4	5	8

Table 10 (continued)

Course Members	Factors/Problems							
	(1) military	(2) political	(3) economic	(4) techno- logical	(5) geogra- phical	(6) sociolo- gical	(7) psycho- logical	(8) mutual underst.
14	3	4	5	8	7	2	6	1
15	3	2	6	8	5	7	4	1
16	5	2	8	6	7	3	4	1
17	3	1	2	6	8	4	5	7
18	2	3	8	7	4	6	5	1
19	2	3	6	8	4	7	5	1
20	5	3	4	8	7	6	2	1
21	5	1	2	7	4	6	8	3
22	1	2	5	8	3	6	7	4
23	2	3	4	5	6	7	8	1
24	5	3	2	4	1	7	8	6
SUM	78	58	103	159	147	129	137	53
MEAN	3.25	2.42	4.29	6.62	6.12	5.38	5.71	2.21
RANK	3.	2.	4.	8.	7.	5.	6.	1.

CONCLUSIONS

The task of the NATO Defense College (NDC) is to prepare selected military officers, diplomats, and civil servants for future assignments of increasing responsibility within the North Atlantic Treaty Organization and in national posts directly or indirectly concerned with Alliance affairs. Implicit in this mission is the requirement to foster mutual understanding and respect and to enhance the ability of individual NATO officers and civilians to work together productively to achieve common goals.

The mission of the NDC is rather broad and complex. Accordingly it is difficult to operationalize in terms of a curriculum. A pragmatic approach has therefore been chosen for the College Program. This approach includes the utilization of experiences of similar national institutions.

The aim of this study is to evaluate in objective, systematic terms whether the Course, as it has developed over the years, achieves the goals. The scientific approach used in this study roughly speaking is the analysis of questionnaire and interview data on the Course Members' opinions, attitudes and expectations at the beginning of the Course. These data are contrasted with the same Members' opinions, attitudes and evaluations at the end of the Course. Since the outcome of such a systematic evaluation may depend on the peculiarities of a Course, the results on the first Course were tested in a second Course. The inquiry concentrated on four problem areas:

- a) balance and differentiation of the Course Members' political perspectives;
- b) insight into other Alliance nations' policies and philosophies;

- c) evaluation of the curriculum (significance of military, political, economic, technological, geographic, sociological and psychological factors and problems);
- d) promotion of mutual understanding.

The empirical findings in short are:

- a) The College is successful in broadening the horizon of students and giving them a broader perspective. The evidence on the attitudes of the students at the NATO Defense College indicates a rather broad political approach from the beginning. Differences in age, career and education have less of an impact than was assumed. Those which do exist are, to a large extent, homogenized by the effects of the Course, an effect which is general in magnitude and direction. Attitudes are differentiating and balanced. Views express a knowledge of the complexity of the political process and political decisions, judgments, therefore are not based on single case explanations. Changes between pre-Course and post-Course assessments tend to reinforce these characteristics. Factors which emphasize problematic areas gain in significance; the awareness for the complexity of issues increases.
- b) The Course reinforces the perceptivity for the character of NATO as an Alliance of sovereign nations, in which the decision-making process has to balance national goals acceptable to all. Hence, the political limitations of effective defense planning are seen but accepted. The value attached to more technical improvements increases; this can be seen as an acceptance of the fact that in this field positive results are more

likely. Burden-sharing grows in importance together with a differentiating view on the role of individual nations in the Alliance. In general, it can be said that the Course contributes to reinforce the Alliance orientations of its Members.

- c) The expectations of Members in regard to the College curriculum are met or even surpassed. Changes indicate a growing awareness for problematic development within the Alliance, specifically in areas of actual concern, the growing importance of arms control for security policy and defense planning and a diminishing concern for more parochial aspects like nationalism and civil/military differences.
- d) Pre-Course expectations on the NATO Defense College Course are very high, nevertheless they are met to a very large extent. The success is almost total in all areas that imply human relations and international cooperation. There is no doubt that the College indeed promotes mutual understanding. The Course is felt to be an important prerequisite for future assignments, particularly in the context of NATO but also in respect to career prospects.

Critique focusses on the more intellectual academic performance of the College, and on the competence of the Faculty. The following factors may have been the main reason behind this critical evaluation: firstly, no introductory program existed to train the Faculty Advisors when they took up their job. Secondly, the College policy at the time of the study tended to define the role of the Advisors in the sense of a non-assertive, non-directive initiator of discussion and learning processes. And last but not least: The willingness of capitals to make suitable per-

sonnel available for the NDC Faculty has always been a crucial issue.

ANNEX A - QUESTIONNAIRES (1)

IDENTIFICATION:

Q 1: How important do you consider each of the following approaches to world peace?

	extremely	very	moderately	slightly	not important	Col
a. Trade, technical cooperation, economic interdependence						10
b. Narrowing the gap between rich and poor nations						11
c. Strengthening of international institutions						12
d. Military superiority of NATO						13
e. Collective security through alliance						14
f. Efforts to achieve a balance of power						15
g. Arms control						16
h. Solving the problems of energy						17
i. Limiting the access to nuclear weapons						18
j. Efforts to understand the different ideological basis of action						19

(1) Questionnaires are the pre-Course versions; the post-Course version of Q6 is slightly different and refers to the Course Members' evaluation of the aspects addressed in the Questionnaire.

Annex A

Q 2: How important do you consider each of the following major forces as a cause of war?

	extremely	very	moderately	slightly	not important	Cu
a. Psychological factors of human nature (fear, aggressiveness, etc.)						20
b. Prejudice						21
c. Ideological differences						22
d. Nationalism						23
e. Power politics						24
f. Gap between rich and poor nations						25
g. Scarcity of resources (oil; foodstuffs; raw materials)						26
h. Arms race						27
i. Existence of the military per se						28

Q 3 (A): If you think about the Warsaw Pact (WP) and NATO - is there a balance or is there a superiority of one side - of WP or NATO, respectively?

Aspects	superiority of WP	balance	superiority of NATO	Cu
a. Economic power				40,41
b. Technology				42,43
c. Energy resources				44,45
d. Capacity to produce food				46,47
e. Nuclear military power				48,49
f. Conventional military power				50,51
g. Ideology				52,53
h. Morale of the army				54,55
i. Morale of people				56,57
j. Influence on the "Third World"				58,59
k. People's identification with the political system				60,61
l. Ability of the political system to cope with crisis				62,63
m. Personal happiness of the people				64,65

Q 3 (B) SECOND STEP

After having evaluated the aspects on the dimension "superiority/balance", please go through the list a second time. Now think about each aspect and mark the condition of superiority or balance with an "o" (for optimal), which you consider to be the best to prevent a war in the long run.

Example: If you think there is a superiority of the NATO with respect to economic power, but you consider this superiority to be a threat to peace in the long run and you think that a balance between the economic power of NATO and WP would be the best to prevent a war, then you should write an "o" in column "balance"; if you think that superiority of NATO is best in this sense, then mark column "superiority of NATO" with an "o" etc.

Please evaluate each aspect according to this schema

Annex A

Q 4: The following list refers to global rating of factors considered important to defense planning. Please evaluate the overall importance of each in your personal opinion.

	strongly agree	agree	un-decided	dis-agree	strongly disagree	Col.
1. National goals are the most important consideration in overall defense long term planning						10
2. Standardization and interoperability offer an opportunity to maximize future resources while still enhancing operational readiness						11
3. Political considerations limit the effectiveness of multinational military planning						12
4. Rapid reinforcement and stockpiling represent a valid approach to linking trans-Atlantic partners						13
5. Economic contributions must be shared equally within an Alliance						14
6. All countries regardless of strength, size and richness deserve an equal voice in Alliance matters						15

Q 5 (A): The next questionnaire shows a list of topics. Please check the general importance of each topic as you personally see it now.

Please evaluate each topic	Dealing with this topic at NADEFCOL I consider as:				cols
	very important 1	important 2	not so important 3	unimportant 4	
→ 1. Discussion of the NATO mission					10, 11
2. Information concerning the ideological bases and differences of NATO and the Warsaw Pact					12, 13
3. Better understanding for the problems of the Alliance					14, 15
4. The impact of politics on the development of NATO					16, 17
5. Threats the alliance may have to cope with in the future					18, 19
6. Ideological differences as a possible threat to the alliance					20, 21
7. Political stability/change as a source of influence on the alliance					22, 23
8. The impact of economic crises on the alliance					24, 25
9. Essential conditions ensuring the survival of the West					26, 27
10. Aspects of possible superiority of the Warsaw Pact					28, 29
11. The future development of communism					30, 31
12. Problems concerning the relation between the military and the political system					32, 33
13. Nationalism as a threat of the alliance					34, 35
14. The ability of the alliance to cope with crises					36, 37
15. Scientific approaches to solve conflicts					38, 39
16. Consequences of arms control					40, 41
17. The impact of the energy crisis on the alliance					42, 43
18. Differences between the European allies and the United States					44, 45
19. The impact of different access to nuclear military power within the nations of the alliance					46, 47
20. The consequences of adding new members to the alliance					48, 49

Are there any topics you miss in this list? If so, please note them down here:

21.	50, 51
22.	52, 53
23.	54, 55
24.	56, 57
25.	58, 59
.....	60, 61

Q5 (B) SECOND STEP

What topics in the list do you consider important for your career?

Please go through the list a second time and cross out ("x") the number of these topics

Example: If you think that discussion of the NATO mission will be important for your career, please cross the first number in the list the following way:
Please evaluate each of the topics.

Annex A

Q 6: The next set of items refers to your personal expectation concerning your studies and your stay at NDC. Please check each of the aspects given in the list; indicate, if you do or do not expect this, and how certain your expectations are. Please mark column 3 ("cannot say") only if you absolutely do not have any expectation.

Aspects:	1 strongly agree	2 agree	3 cannot say	4 disagree	5 strongly disagree	Col.
1. Having to cope with language problems I have myself						10
2. Having to cope with language problems the other students have						11
3. Getting useful experiences concerning international cooperation						12
4. Intensive intellectual work						13
5. Gaining practical knowledge						14
6. Dealing with difficult problems						15
7. Making new friends						16
8. More scientific than practical approaches to problems						17
9. Critical evaluations of my own views and positions						18
10. A generally adequate evaluation of my competence by the members of the faculty						19
11. A generally adequate evaluation of my competence by other students						20
12. Increase of my understanding for national differences in perspectives and approaches within the alliance						21
13. All in all a very useful outcome with respect to my career						22
14. The course as a good test concerning my qualification and suitability for appointments in NATO						23
15. Getting used to deal with somewhat controversial issues						24
16. In general a very useful outcome with respect to my next assignment						25
17. A generally positive experience concerning cooperation						26
18. Enough time to explore some of Rome and Italy						27
19. Sufficient time to take care of my family (please do not answer if you are here) without family						28
20. A positive social life integrating all students						29
21. A substantial number of rather uninteresting lectures						30
22. Having to study quite a lot of practically irrelevant issues						31
23. A better understanding for scientific approaches to solving problems						32
24. Many discussions without useful outcomes						33
25. An informal grouping of students having the same language or nationality						34
26. A very competent faculty						35
27. A study climate similar to a university climate						36
28. A somewhat difficult integration of "civil" and "military" students' viewpoints and approaches						37
29. Some difficulties in understanding between students from economically more powerful and economically less powerful nations						38
30. A general openness, a climate encouraging critique						39

Annex A

Q 7 (A): If you consider your interests concerning the following areas of science - how interesting do you find each of these areas?

area:	very interesting	interesting	not so interesting	uninteresting	cols.
Education					29
Military					30
History					31
Economy					32
Technology					33
Psychology/Sociology					34
Geography/Geology					35
Languages					36
Law/Jurisprudence					37
Politics					38

Q 7 (B): Now consider the importance the following areas of science have for your career - how important do you consider each of these areas?

area:	very important	important	not so important	unimportant	cols.
Education					39
Military					40
History					41
Economy					42
Technology					43
Psychology/Sociology					44
Geography/Geology					45
Languages					46
Law/Jurisprudence					47
Politics					48

Thank you for your cooperation. We would welcome any suggestions or critical comments - please note them here and/or discuss them with us.

Q 8: Language Questionnaire (Pre-Course)

The following questionnaire refers to certain aspects of the language instruction. Since the purpose of the questionnaire is to point to problems you probably perceive, please feel free to be critical.

Evaluation of that kind is to some extent influenced by the precourse level of language proficiency. Thus please note your precourse language proficiency profile below.

	L : Listening	S: Speaking	R: Reading	W: Writing
English				
French				
Italian				

Cols.
5 - 8
9 - 12
13 - 16

0 : nil
1 : limited
2 : fair
3 : good
4 : very good
5 : excellent

- 1) The college follows a two language policy, i.e. both English and French are the "official" languages. However, there is a predominance of English concerning the lectures, the communication within the committees etc.
- a) What do you think about this policy? According to your personal opinion, what is the language proficiency a course member needs in order to be adequately prepared for integrated and/or NATO appointments? Please note the most appropriate language proficiency in this sense; refer to both languages.

	L : Listening	S: Speaking	R: Reading	W: Writing
English				
French				

17 - 20
21 - 24

0 : nil
1 : limited
2 : fair
3 : good
4 : very good
5 : excellent

Do you have any comments concerning the "two language policy"?

- b) If you think in terms of your next appointments (or the most probable next appointments), what foreign language is going to be most important to you? And what might be the second foreign language you consider to be important to you?

Most important foreign language: _____ 25

Second important foreign language: _____ 26

Comments: _____

- 2) Is your mother-tongue/native language: 1: Danish or Norwegian; 2: Dutch or Flemish; 3: English; 4: French; 5: German; 6: Greek; 7: Italian; 8: Portuguese; 9: Turkish? Please insert the appropriate code. If bilingual, please use two codes.

Code

	27
	28

ANNEX B: ACADEMIC PROGRAM OF COURSE 69 (1986/87)
(1)

Study Period 1 - Why NATO? An Introduction to the Alliance

- Lecture 1.1 - The Development of International Relations since World War II
- 1.2 - The Civil/Political Structure of NATO
- 1.3 - The Military Structure of NATO
- 1.4 - NATO's Defense Planning Process
- 1.5 - The Functioning of NATO's Civil/Political Structure: How and Why?
- 1.6 - NATO: How the Military Structure Functions? An Insider's View
- 1.7 - Alliance Funding: Who Pays, How and For What?

Study Period 2 - Instruments of Power

- Lecture 2.1 - The Dimensions of Strategy
- 2.2 - Public Opinion and Security Policy
- 2.3 - Public and Defense Expenditures and Their Impact on National Economies
- 2.4 - The Benefits and Hazards of Economic Interdependence

- Seminar 1: North-South Issues
- Lecture 2.5 - Ideology as a Factor in International Affairs?
- 2.6 - Political Utility of Military Power
- 2.7 - Terrorism and Subversion as a Political Weapon
- (1) Taken from the Academic Program, Course 69, September 1986 - February 1987, NATO Defense College, Rome

- Study Period 3 - The USSR and Eastern Europe
- Panel 1 - The Security Policy of the USSR: Continuity of New Trends
- Lecture 3.1 - The Internal Structure of the USSR
- 3.2 - The Political Situation in Eastern Europe
- 3.3 - The Economic System of the Warsaw Pact Countries
- 3.4 - The Structure and Operation of the Warsaw Pact
- 3.5 - The Military Strategy of the USSR/Warsaw Pact
- Study Period 4 - NATO Strategic Issues
- Lecture 4.1 - The NATO - Warsaw Pact Balance: A Net Assessment
- 4.2 - NATO Strategy: Its Development and Current Form
- 4.3 - Maritime Strategy
- 4.4 - NATO Nuclear Policies
- 4.5 - The Military Nuclear Capabilities of Britain and France: Implications for NATO
- 4.6 - Trends in Technology and Improving the Conventional Defense

Study Period 5 - Intra-Alliance Issues

- Lecture 5.1 - Europe and the USA: Perceptions and Alternatives
- 5.2 - European Unification and the European Security Dimension
- 5.3 - Armaments Cooperation and Resource Management in NATO: Problems and Prospects
- 5.4 - Arms Control and Disarmament: Problems and Prospects
- 5.5 - The Strategic Defense Initiative: American and European Perceptions
- 5.6 - The Out-of-Area Issue

Study Period 6 - World Regions and Their Importance for NATO

- Lecture 6.1 - China
- 6.2 - Japan
- 6.3 - Southwest Asia
- Seminar 2 - The Revitalization of Islam
- Lecture 6.4 - The Middle East and North Africa
- 6.5 - Africa South of the Sahara
- 6.6 - Latin America and the Caribbean

Special Lectures

- The Social and Political Structure of the United States of America
- National Security Capabilities and Policies of European Neutral Nations (Austria, Finland, Yugoslavia and Sweden)

in the USA:

- Strategic Mobility and U.S. Global Commitments: Implications for NATO

- The Strategic Defense Initiative

in NATO HQs or SHAPE:

- Rapid Reinforcement Plan and Civil Emergency Planning

Panel of Ambassadors:

- NATO and the World - Looking Towards the Year 2000

LITERATURE

BLOOM, B.S.:

Taxonomy of Educational Objectives,
Handbook 1: Cognitive Domain, New York 1956

CAMPBELL, D.T.: STANLEY, J.C.: Experimental and
Quasi-Experimental Designs for Research on
Teaching. In N.L. GAGE (Ed.): Handbook for
Research and Teaching, Chicago 1963, pp. 171
- 246

DAVEAUX, J.: The NATO Defense College. A Study of
of its Concept and Evolution, Rome, NATO
Defense College, 1975

DAVIS, S.M.: Development and Characteristics of
National Defense Colleges as a World Phenom-
enon, Kingston, Ontario 1979 (unpublished
PhD thesis)

DEUTSCH, K.W.: Political Community and the North
Atlantic Area: International Organisation in
the Light of Historical Experience, Prince-
ton 1957

DIEHL, J.M.; KOHR, H.-U.: Durchführungsanleitun-
gen für statistische Tests, Weinheim 1977

GLASS, G.V.; STANLEY, J.C.: Statistical Methods
in Education and Psychology, Englewood
Cliffs 1970

KRATHWOHL, D.R.; BLOOM, B.S.; MASIA, B.B.:
Taxonomy of Educational Objectives,
Handbook 2: Affective Domain, New York
1964

NIE, N.H. et al.: Statistical Package for the
Social Sciences, Release 9, New York 1975

RADBRUCH, H.E.: From Scharnhorst to Schmidt:
The System of Training Education in the
German Bundeswehr. Armed Forces and Society
1979, 5(4), pp. 606 - 626

RADBRUCH, H.E.: Das NATO Defense College in Rom.
"Die Bundeswehr" 1980, 11, pp. 698 - 699

RADWAY, L.I.: Military Behavior in International
Organisations - NATO's Defense College. In
S.P. HUNTINGTON (Ed.): Changing Pattern of
Military Politics, Glencoe 1962, pp. 102 -
120

Footnotes

- (1) Sozialwissenschaftliches Institut der
Bundeswehr (SOWI), München.
- (2) Final approval in May 1980.
- (3) This section is based on a recent report
of the College's Curriculum Development
Group (unpublished).
- (4) For details see Chapter 3.
- (5) Application: use of information to solve
problems; analysis: discerning the essen-
tial ideas and their interrelationships;
syntheses: inter-relating and integrating
information and ideas in order to create
new insights; evaluation: judging the
values of something based on well-developed
criteria (cf. BLOOM, B.S.: Taxonomy of
Educational Objectives, Handbook 1:
Cognitive Domain, New York 1956).
- (6) Responding: willingness to explore, to take
part in something, to participate, valuing:
positive regard for the Alliance, commitment
responsible expression of a particular point
of view; organisation: building up consis-
tent points of view about the Alliance,
which integrate contradictions and conflicts
(cf. KRATHWOHL, D.R.; BLOOM, B.S.; MASIA,
B.B.: Taxonomy of Educational Objectives,
Handbook 2: Affective Domain, New York
1964).
- (7) Profound information and knowledge; sensi-
tivity and insight with respect to problems;
promotion of mutual understanding; sound
positive evaluation of the Alliance.

- (8) Since the NDC is not a Staff College, no alternative to this policy seems to be within reach; even if it were present, this policy appears to be adequate regarding the aims of the College and the high level of Course Members' knowledge, ability and experience as well as the expectations of NATO Headquarters, the main future working context for the College graduates.
- (9) The methodological considerations involved with this design cannot be discussed here; the reader is referred to Donald T. **CAMBELL** AND Julian C. **STANLEY**, Experimental and Quasi-Experimental Designs for Research on Teaching. In N.L. **GAGE** (Ed.), Handbook for Research on Teaching, Chicago: Rand McNally, 1963, 171 - 246.
- (10) The same questionnaires were applied. Slight changes in one questionnaire (Q6, Annex A) had to be made because this questionnaire contrasts the Members' expectations at the beginning of the Course with their evaluations at the end of the Course.
- (11) All topics have also been addressed in the "pre-Course" interviews (i.e. the Members were asked to express their expectations at the beginning of the Course).
- (12) English and French both are the "official" languages, but French is actually rarely used in the College (see Chapter 3.3).
- (13) In addition to the briefing, the Members got the information sheet already mentioned (see pages 13, 14, 15).
- (14) See Chapter 3 for a general description of the committee concept in the context of the overall work organization at the NATO

- Defense College.
- (15) To avoid possible misunderstanding we want to stress that the term "control" is not conceived here in the sense it is being used in the language of experimental design.
- (16) Some minor differences occurred, but these are within the range of random fluctuations; they do not change the clear pattern of results which emerged in the analyses of the data of Course 59.
- (17) Statistical Package for the Social Science, Release 9; cf. **NIE**, N.H. et al., New York: McGraw-Hill, 1975.
- (18) See e.g. Jörg M. **DIEHL**/Heinz-Ulrich **KOHR**, Durchführungsanleitungen für statistische Tests, Weinheim: Beltz, 1977.
- (19) See Gene V. **GLASS**/Julian C. **STANLEY**, Statistical Methods in Education and Psychology, Englewood Cliffs, N.J.: Prentice Hall, 1970, Chapter 2.
- (20) Laurence I. **RADWAY**, Military Behavior in International Organisations - NATO's Defense College. In S.P. **HUNTINGTON** (Ed.). Changing Pattern of Military Politics, Glencoe, Free Press, 1962, pp. 102 - 120.
- (21) Besides some recent entirely descriptive publications on the College in military periodicals only one other study has been undertaken since 1957 (James J. **HOLLAND**, The NATO Defense College and Shared Cultural Values Among NATO Countries). The study was funded by the NATO Fellowship Program; data were collected in late 1981 (Course 59). The study is not yet published.

- (22) See H.E. RADBRUCH, From Scharnhorst to Schmidt: The System of Training Education in the German Bundeswehr. Armed Forces and Society; Vol. 5, No. 4, Summer 1979, pp. 606 - 626.
- (23) There is indeed one other institution with almost the same characteristics as those of the NDC - the Inter-American Defense College (IADC) - but geographically it is more restricted and, moreover, it is on a different level and has a completely different mission (cf. Shurton M. DAVIS footnote 2).
- (24) In a review of National Defense Colleges, Shurton M. DAVIS makes just this point: Referring to NDC and IADC he says these Colleges "by their nature are not subject to the range of national constraints against which we have been examining the variety of National Colleges".
Shurton M. DAVIS: Development and Characteristics of National Defense Colleges as a World Phenomenon; unpublished PhD Thesis, Kingston, Ontario, 1979, p. 305.
- (25) Today part of the National Defense University.
- (26) Message of General Eisenhower to the Standing Group on April 25, 1951.
See also General Gruenther in "This Week", April 20, 1952.
- (27) The development of the mission is described in section 1.1 of our report. Therefore we do not repeat details on this subject here.
- (28) L.I. RADWAY, op.cit. p. 106.
- (29) Ibid., p. 108.

- (30) Formally the Faculty consists of the Deputy Commandants, the Faculty Advisors, and the Academic and Tours Planning Officers.
- (31) Royal College of Defence Studies, London.
- (32) In Courses 57 and 59 e.g., the following (among others) lectured at the College: H. BULL; G. HARRIES-JENKINS; L. MARTIN; S. CANBY; W.C. OLSON; M. CONANT; D. GREENWOOD; F. ALTING von GEUSAU; R. GARDENER; C. GASTEYGER; C. CIVIC; A. NOVE; W. LEONHARDT; M. KOHNSTAMM; N. HAAGERUP; R. FISHER; Sir R. MASON; S. CHUBIN; J. ERICKSON; S. MARDIN; J. GLAUBITZ; M. LEIFER; C. LEGUM; M. HOWARD; W. SCHÖTZE; K. HUNT; R. CLOSE; I. FELLS; P. OPPENHEIMER; D. PAPP; O. MARWAH; H. SONNENFELDT; H. TIMMERMANN; R.J. MAYNE; R. OSGOOD; H.G. WIECK; W. Graf von BAUDISSIN; A. SABROSKY; E. KEDOURIE; L. WHETTEN.
- (33) b. and c. are set by the Military Committee.
- (34) Joining Instructions, mimeo, NDC, Rome 1981, p. 5.
- (35) The details reported in this section relate to the Academic Program as it existed at the time of the study (Course 64).
- (36) Cf. Hans Eberhard RADBRUCH, "Das NATO Defense College in Rom", in "Die Bundeswehr", 1930, 11, pp. 698 - 699.
- (37) See Chapter 1.1 for an explanation of these terms.
- (38) Report of the Deputy Secretary of Defense (US) on The Intermediate Level Staff Colleges, mimeo, December 1, 1976, p. 1.

- (39) Report of the Deputy Secretary of Defense (US) on The Senior Defense Colleges, mimeo July 5, 1975, p. 1.
- (40) The Royal College of Defence Studies, Information Brochure, p. 2.
- (41) L.I. RADWAY, op.cit. p. 103.
- (42) A German Ancien (Course 42).
- (43) A British Ancien (Course 42).
- (44) A British Ancien (Course 43).
- (45) An U.S. Ancien (Course 42).
- (46) A British Ancien (Course 41).
- (47) Karl W. DEUTSCH et al.: Political Community and the North Atlantic Area: International Organization in the Light of Historical Experience, Princeton, 1957, p. 129.
- (48) As already noted in section 2, the term "control" simply means a re-investigation using a different sample/course, and is not used in the sense of "experimental control".
- (49) The statistical data characterizing the Members of Course 64 resemble those of Course 59 closely (see Table 1).
- (50) I.e. the percentages/differences of percentages computed in the analyses of the data of Course 59 and 64 respectively certainly are not numerically identical, but the results exhibit the same structure and thus lead to the same interpretation. To avoid reiteration and redundant information, the data of Course 64 is not represented.

- (51) Numbers are percentages.
- (52) International Institute of Strategic Studies, Strategic Survey 1981 - 82; London, 1982, p. 8.
- (53) During the recent courses, and also in reaction to the results of this study, the Faculty's role has been redefined (personal communication at the NDC, December 1986).