



IAMU

International Association of Maritime Universities

IAMU PEER-ASSISTED SELF-EVALUATION SCHEME

Supported by  日本 THE NIPPON
財団 FOUNDATION

Rijeka, 2015

Project title: IAMU PEER-ASSISTED SELF-EVALUATION SCHEME

Grant provider: International Association of Maritime Universities
Toranomom 35 Mori Bldg.
3-4-10 Toranomom
Minato-ku, Tokyo
JAPAN 105-0001

Consultant: FACULTY OF MARITIME STUDIES RIJEKA
University of Rijeka
Studentska 2, 51000, Rijeka
Croatia

Project leader: Damir ZEC

Authors: Boris BUTMAN, Professor Emeritus, ex-USMMA, New York, USA
Vlado FRANČIĆ, Faculty of Maritime Studies, University of Rijeka, Croatia
Boris PRICHARD, Faculty of Maritime Studies, University of Rijeka, Croatia
Damir ZEC, Faculty of Maritime Studies, University of Rijeka, Croatia

Advisory Board: Glenn BLACKWOOD, Fisheries and Marine Institute of Memorial University of Newfoundland, Canada
Nil GÜLER, Istanbul Technical University, Turkey
Serdo KOS, University of Rijeka, Croatia
Takeshi NAKAZAWA, IAMU Secretary, Japan
Donna J. NINCIC, California Maritime Academy, USA
Cornel PANAIT, Constanta Maritime University, Romania

CONTENT:

1	INTRODUCTION.....	1
2	DEFINITIONS	2
3	OBJECTIVES AND ASSUMPTIONS	4
4	GENERAL PRINCIPLES	10
5	IAMU PEER-ASSISTED SELF-EVALUATION	12
5.1	SELF-EVALUATION	12
5.2	VERIFICATION	13
5.3	VALIDATION	17
5.4	REALIZATION AND OUTCOMES.....	18
5.5	SUBJECT AREAS	21
6	GUIDANCE FOR EXPERTS ACTING AS EXTERNAL PEERS	27
6.1	EXTERNAL PEER PANEL	27
6.2	ON-SITE VISITING TEAM	27
6.3	PREPARATION FOR A VISIT	29
6.4	PEER RESPONSIBILITIES AND CONDUCT DURING A VISIT	29
6.5	POST VISIT ACTIVITIES.....	30
7	CONCLUSIONS AND RECOMMENDATIONS	31
8	ANNEXES.....	33
8.1	SELF-EVALUATION FORM.....	33
8.2	MODEL SITE-VISIT REPORT	53
8.3	REFERENCES	59

1 INTRODUCTION

Results and conclusions from the Feasibility study on the establishment of an IAMU accreditation scheme, carried out during 2011 and 2012, clearly illustrated that IAMU member institutions could benefit from some form of evaluation of their organization, study programmes and internal resource management.

In addition, those researches clearly demonstrate that IAMU members, as forerunners among MET institutions, are willing to improve further their existing educational processes as well as associated quality systems. These improvements are aimed to prove their quality and attest to the continuous advances in professional expertise as well as organization improvements, especially those reflecting the relevant changes taking place maritime industry and MET

Furthermore, IAMU member institutions clearly acknowledge that measures aiming to improve the overall quality of an institution have to be systematic, harmonized and compatible, as much as appropriate with quality measures developed by the shipping industry.

Therefore, it seemed reasonable to develop the evaluation scheme encompassing goals, standards and measures common to leading MET institutions and with the aim of assessing the state of excellence of an MET institution as well as to clearly indicates possible improvements.

The main objectives of such scheme should be:

- to improve the management system established at the institution,,
- to improve organizational aspects of the MET system in place,
- to improve quality of academic curriculum, including contents of each subject in the specific academic programme leading to Certificate of Competencies and BSc,
- to improve the learning experience while maintaining the target learning outcomes.

The scheme is expected to allow IAMU member institutions to 1) timely and effectively respond to international, national and regional challenges; 2) to allow IAMU member institutions to introduce and implement state-of-the-art educational methods, training tools and management standards, as they consider appropriate in prevailing circumstances.

Based on the prerequisites outlined in previous paragraphs and in particular on the lessons learned in previous studies, the scheme proposed follows a two-step process. The first step is a guided, task-oriented and quality driven self-assessment while the second step includes peer-assisted iterative self-analyses.

Following the mentioned preconditions and goals, the Authors proposed, and IAMU IEB approved, the development project IAMU PAES – IAMU Peer-assisted Evaluation Scheme. The project was approved in April 2014 and has to be concluded by the end of March 2015.

2 DEFINITIONS

The following terms have the meanings as follows:

Institution	A higher maritime education and training institution (MET) offering at least undergraduate academic programs (B.Sc.) leading to Certificates of Competency (as defined in STCW Convention).
Host institution	An MET institution subject to peer-assisted evaluation scheme (PAES scheme).
Academic staff	Term incorporating all employees of the institution who deliver teaching classes or guide students through direct interaction (faculty). It includes instructors of various ranks (assistant, associate and full professors), lecturers, etc.
Student	A person attending and participating in the educational process leading to BSc, and CoC and/or CoP).
Administrative staff	Term incorporating all non-academic employees of the MET institution who provide various services but do not participate in educational and/or research activities carried out at the institution.
Program	A structured description of the learning progress for all courses (general subjects, core courses and electives, if any). It outlines the knowledge, understanding and proficiency (skills) as well as attitudes and values students are expected to attain. It also includes descriptions of study materials, and timetable, including planned sequences and assessment procedures.
Course	A unit of teaching (a subject) that typically lasts one academic term, is led by one or more instructors (assisted by one or more assistants and/or lecturers), and has a fixed number of students. At the end of the course, students are usually required to attend a final exam and receive a grade or academic credits. During the academic term, students usually attend a number of different courses.
Educational process	A process carried out by the institution staff aiming at ensuring efficient accomplishment of the proclaimed goals. It consists of several successive actions carried out by different staff members but having the same goal, such as providing simulator training to all students on time, or providing library services according to the given standard.
Competence	A cluster comprising related knowledge, understandings and proficiency (skills), sufficient to enable a person (or an organization) to act effectively in the given circumstances.
Certificate of Competency	A certificate issued and endorsed for masters, chief engineers, officers and GMDSS radio operators in accordance with the provisions of chapters II, III, IV or VII of the STCW Convention, as amended, entitling the lawful holder to serve in the capacity and perform the functions involved at the level of responsibility specified therein.
Accreditation	A formal, published statement regarding the quality of an institution or a program, following a cyclical evaluation based on agreed standards. It is an outcome of an external quality review used in higher education to scrutinise

higher education institutions and programs for quality assurance and quality improvement.

Quality assurance	Systematic monitoring and evaluation of the various aspects of a project, service or program aiming to maximize the probability that minimum standards of quality are being attained by the associated production process. QA does not guarantee the production of quality products.
Evaluation	A process of collecting, reviewing and interpreting the data and evidences in order to determine the extent to which project, service or program outcomes or educational objectives are being achieved.
Peer	A person, a member of IAMU panel of peers, having outstanding records and experience in maritime education and training, including international activities, and who acts as an impartial advisor while implementing the PAES Scheme.
Evaluator	A person, normally employed with the host institution as a senior professor, with sufficient management experience, and who is expected to complete the PAES Self-evaluation Form.

3 OBJECTIVES AND ASSUMPTIONS

The global economy as well as so many national economies, today more than ever, depend on adequately educated, well trained and highly organised operational and managerial staff. In this respect, shipping makes no exception. Well-educated and competent crews have probably become the most important asset of any shipping company, having a strong impact on the overall efficiency of the company.

Of similar importance is that well-educated and competent ships' crews be assigned in the environmentally protected activities. Many, if not all governments of the coastal states consider well-educated and competent crews as the most influential factor in their efforts to protect the environment from the threats caused by shipping and other offshore activities.

This is why shipping companies as well as governments today pay so much attention to the quality of the maritime education and training (MET). Probably the most notable indicator of the importance the maritime education and training bears in the modern world are efforts, resources and energy involved while developing and implementing recent amendments to the STCW Convention.

Consequently, no matter when the MET institutions were established or how developed their national economies are, in the last twenty years the MET institutions have been forced to adjust to these global trends. The most notable aspects of these comprehensive changes include:

- globalization - education and training became much more oriented toward the global labour market, even in the countries where MET were mostly oriented to satisfy the needs of the national shipping companies,
- harmonization - pressure to implement either mutually agreed or informally adopted international standards is constantly increasing, especially in respect to the content of core curricula (for example ECDIS and High Voltage systems) and equipment used (simulators!),
- cooperation - interest of the shipping companies, as the major private stakeholders, as well as others stakeholders, in the MET related subjects is increasing continually,
- quality control - pressure to increase the quality of education and training is increasing, equally by the governments and by private interests,
- competition – once considered almost as a matter of national interest, in many countries the system of MET became a pure commercial activity; a part of the “education business”.

These influences created also a number of negative effects or at least effects whose long-term consequences are not easy to assess. For example:

- extensive education and training for global labour market may cause misbalance of the national labour market, for example by creating workforce shortages,
- new requirements may demand extensive financial investments to keep up with mandatory or commercially imposed standards,
- the number and quality of the academic staff is not easy to maintain,
- the interests of the major stakeholders may redirect the long-term development of an institution or provoke different allocation of the resources, more in line with their interests,
- mandatory quality control procedures are widely accepted, and may be carried out by persons with limited or no educational background

- pressure to ensure financial soundness of the institution may provoke decisions that are not in the best interests of the students or some other stakeholders, or may impact the quality of education and training,

In these circumstances, it is reasonable to try to develop a scheme¹ aiming:

- to assess the **state of quality** of an MET institution, and
- to indicate possible **improvements**.

The first step aims to assess the state of the quality of an MET institution. The term *quality* within the scheme is understood to conform to the *fitness for the purpose* concept.² The concept is preferred because the most important part of education processes in MET institutions, the core curricula, are very well defined in STCW Convention, particularly in STCW Code A. And all MET institutions actually already agreed to fully implement the core curricula derived from the STCW Code A requirements.

The major obstacle to implement the *fitness for purpose* concept in MET institutions is a result of the fact that an institution may not have defined its customer base. In education in general it is not always easy to define the customer, i.e. the beneficiary of an education program. For the MET institution the *customer*³ may be:

- the student (the primary beneficiary),
- shipping industry (the second beneficiary),
- other maritime related industry (such as shipbuilding, classification societies, different operators being involved with the industry),
- maritime administrations (as employer),
- government (if it provides funding, and in many cases it does) or
- local society (in many various ways).

As a rule, MET institutions will try to define their objectives in a way that will satisfy the most important stakeholders as much as possible and others as much as required.

In principle, assessment of the state of quality is a formally organized sequence of activities that compares actual procedures and outcomes with adopted standards describing those procedures and outcomes. The standards applicable to MET institutions are:

- Academic standards,

¹ In the following text the word scheme refers to the PAES scheme

² Quality as *fitness for purpose* is usually adopted when judging not-so-sophisticated products or services. In most cases, the basis for implementation is a comparison of real outcomes with clearly set up standards. In many cases, *fitness for purposes* approach is further simplified and quality is checked only against customer specifications. In complex cases, the *fitness for purpose* concept cannot be easily implemented and methods that are more indirect have to be used. The usual approach is a combination of prescribed working procedures (quality assurance procedures, such as required by the ISM) and regular verification of the customer satisfaction (such as required by the ISO 9000 system). More elaborated discussion of the concept can be found in [Harvey and Knight, 1996].

³ The DNV Standard 3.401 clearly states, „*The maritime academy shall define their customers. The maritime academy's customers are typically students, ship managers and authorities.*” The standard has been later replaced with standard 3.403 containing slightly amended requirement: “*The training provider shall define their customers. The training provider's customers are typically trainees, ship managers and authorities.*”

- Standards of competence,
- Service standards,
- National maritime legislation,
- National educational standards.

Academic standards⁴ describe the target levels of academic achievement expected to be met by students. In relation to teaching and learning, this refers to the ability of students to fulfil the requirements of the program of study, through whatever mode of assessment is required. This usually requires demonstration of knowledge and understanding, sometimes even quite high levels of skills and competencies. Implicitly, some other skills are also assessed, such as communication or presentation skills. Sometimes 'higher level' skills, such as analysis, comprehension, interpretation, synthesis and critique are explicitly assessed. A single level of attainment may be set (pass or fail) or a graded set of levels, describing the “degree of excellence” acquired.

Academic standards follow mostly the “quality as transformation” approach (“to create a better person”) and as such in many cases the requirements emanating from accepted academic standard are not easily formalized. Academic standards are usually quite easily recognized in relation to basic science (general) subjects such as mathematics, physics and similar technical subjects. Academic standards in social sciences and humanities are much more subjective and left to expert opinion.

Standards of competence describe the target level of ability on a range of competencies. Competences may include general transferable skills required by employers and skills required for induction in to a profession. Standards of competence are more often assessed in terms of threshold minimums than as degrees of excellence. Obtaining a professional qualification, for example, involves conforming to minimum standards of professional competence.

Standards of competences require the acquisition of those skills and understanding which are required for doing specific jobs. One first identifies the requirements of the job and then specifies the standard of competency that enable person to do the job. The competences, revealed in the undertaking of standardised, job related tasks, constitute the standards.

Standards of competence may be stated or inferred as part of taught course objectives. They may be an implicit part of the expectations of competences to be achieved by students. Standards of competence begins to overlap with academic standards, when higher-level skills and abilities are explicitly identified as intrinsic to competence, as in professional education, where, for example, reflection and critique may be an element in the attainment of an award. In these cases distinction between academic standards and standards of competence is, to some extent, pragmatic.

In MET institutions, standards of competences are widely introduced in 1995 through amendments to the STCW convention. The Convention is in its entirety a competence-based system of standards with clearly defined competencies, knowledge, understanding and proficiency, methods for demonstrating competence and criteria for evaluating competence. It can be stated that the Convention, at least when higher MET institutions in traditional maritime countries are in question, caused a shift from the “quality as transformation” approach to the “quality as fitness for purpose” approach.

In addition, the STCW Convention seeks to establish a baseline standard for training and education of seafarers throughout the world by strongly emphasising the quality control and competence-based

⁴ In some countries the term *academic standards* refers actually to institutional rules of conduct, including enrolment, and different other more or less administrative procedures. Here, these standards are referred to as service standards.

training. It assumes that not only the required standards (described in Code A) are met, but that they are seen to be met. Moreover, it assumes that all requirements are met, at least at the level described in appropriate tables in the Code A. Consequently, the STCW requirements can be considered as *hard standards* for any MET institution and should be verified whenever the quality assessment is carried out.⁵

Service standards describe the level of services that will be provided at an institution to students, academic staff and all other persons entitled to use available facilities. The service standards are usually based on the assumed level of quality, mostly defined through “value for money” approach. In many cases, those concerned with service standards follow “contractual” benchmarks specifying minimum levels of service. Such standards may include turnaround times for assessing student work, maximum class size, frequency of personal tutorials, availability of information on complaints, information support and so on. Benchmarks tend to be quantifiable and restricted to measurable items, including presence or absence of an element of service or a facility. Measurements of “customer satisfaction” are frequently used to indicate the quality of service provided. Thus, in many aspects service standards parallel the consumer standards.⁶

It is important to emphasize that all three types of standards, as described in the above paragraphs, are highly interrelated to the implemented concept of quality and, taken together, should form a coherent system of principles and norms applicable at an institution.

It should be emphasized that a major part of academic standards as well as service standards are defined by the institution itself and as such they may vary significantly across different countries, depending on tradition. They usually reflect the level of economic development and prevailing academic culture in the country but also in the institution itself. These standards and associated regulations, no matter what form they assume, are actually *soft standards* and beside verification of compliance during quality assessment, their fitness for purpose may be questioned also.

National maritime legislation regulates seafarers’ education in the part that is not covered with international instruments, mostly procedures prescribing application process to obtain CoCs and CoPs, assessments, revoke of certificates, etc. National rules and regulations are a case of *lex specialis* in relation to other national legal sources that regulate other fields of education and usually extend the application of certain rules to the seafarers and ships that are not regulated by the international regime. The most important part of the national maritime legislations is a part dealing with MET providers (except few requirements requiring quality management and use of simulators in the STCW Convention, governments are free to regulate this area as they consider appropriate). These requirements define standards that must be implemented so they have to be considered as hard standards.

5 In order to harmonize the most important educational processes and to help developing countries the IMO developed a number of IMO Model Courses. These courses prescribe the curricula, recommended timetables, required equipment and facilities and in some cases even provide teaching material. The major difficulty their implementation may cause stems from the fact that Model Courses are just recommendations, and do not present mandatory requirements. As such they present soft standard, something that could be used if appropriate. Unfortunately, in many cases, not only from shipping companies but also from government officials, it is required to blindly implement Model Courses, even if that would actually decrease already existing level of quality. Therefore, in the scheme it is assumed that Model Courses are considered while developing the respective courses but are not obligatory, particularly in respect of number of hours that has to be devoted to certain topics.

6 In MET some of the service standards are already internationalized. For example, the formal standard prepared by DNV describing simulators to be used at MET institutions is *de facto* internationally accepted standard.

National educational standards are standards that regulate activities of all educational institutions of the same level in a country. In many cases, they define (minimum) mandatory part of the national education system, leaving each institution to complement its own academic standards. The mandatory minimum requirements may be relatively simple and easy to satisfy if an institution is rather small and/or independent but may be quite complex and demanding if an institution is a part of much larger organization, usually a university. In that later case, the MET institution inherits from the parent institution a number of requirements of which some are not easy to satisfy (for example, to devote a certain number of hours to research activities). Assessment of the quality must take into account these demands and restrictions, particularly if imposed by the parent institutions, as well as the benefits that may be inherited in those cases. In any case, the requirements of the STCW Convention and national legislation should not be compromised.

In general, implementation of the PAES scheme has to take into accounts all previous standards and requirements. Unfortunately, except standards derived from the STCW Convention, all others are unique for each country and some even for each institution; thus, the universal procedure that will be applicable and equally efficient in quality assessment of any MET institution is extremely hard to develop, and even in that case, with very questionable results. To overcome these difficulties it is necessary to develop a scheme that will rely on experienced peers who should, based on their previous education and experience, properly assign importance to different requirements and make conclusions on resulting state of quality.

Once the assessment of the quality is accomplished, the possible improvements may be explored and recommended. Improvements should be based on the thorough analyses of non-compliances found, as well as on peers' suggestions and/or recommendations developed through mutual interaction. Both suggestions and recommendations may be accompanied with one or more actions.⁷

The suggestions, recommendations and actions may be divided in two distinctive groups:

- those that rectify identified cases of non-compliance with applicable standards, and
- those aiming to improve overall institutional effectiveness beyond the requirements of applicable standards.

Actions rectifying identified non-compliances are measures similar to those defined by the quality management systems. These actions normally do not require amendments to the institutional quality management system (unless revealed non-conformity has been identified multiple times in the past and no remedial actions gave positive results). In this respect the scheme would help host institutions to improve their own quality management system.

More important outcomes of the scheme are improvements of the educational processes suggested or recommended by the peers. These improvements and related actions aim to improve the overall institutional effectiveness beyond requirements of applicable standards, and as a rule require not only amendments to the quality management system but also amendments to the working procedures, management practises, internal regulations and sometimes even changes of the organizational structure of the host institution.

⁷ Suggestions should be expressed in a form of proposal for consideration by responsible management body, preferably accompanied with examples from other institutions.

Recommendations should contain more elaborate proposals with one or more recommended activities that can resolve cause(s) of identified non-compliances or foster further progresses. They should be more focused and appropriate for the identified circumstances.

Actions are well-defined measures with clearly assigned responsibilities and timetable for execution.

It is assumed that suggestions and recommendations result from open-minded discussion between peers on the one side and at least several members of the host institution on the other. They should be provoked by the peers but shaping them into final form should be made together. Regarding the scope, suggestions and recommendations may range from minor modifications of the mode the particular course is delivered up to the major revision of the study program.

It is important to note that a strategic plan or similar document developed by the host institution significantly advances the scheme and its effectiveness. A strategic plan is a structured document describing long-term goals of the institution. In very simplified form, it consists of following parts:

- institutional mission,
- institutional vision (strategic goals), and
- measures and actions.

Institutional mission describes the *raison d'être* of the institution, normally in as few as possible words. Usually, it is a simple statement proclaiming for what purpose the institution has been established. The wording used should be such to ensure it can be understood by everyone, irrespective of one's degree of educational. In many cases, institutional mission is accompanied with guiding principles to be followed in routine activities.⁸

Institutional vision is usually a list of strategic goals describing what the institution wants to attain at the end of the strategic period. Typically, it consists of several strategic goals covering each of the most important subject areas (for example, student education, research, continuous professional development, student services). Even for complex organizations, the number of strategic goals per subject area should be constrained (usually not more than 5).

Finally, for each goal the measures and actions to be taken should be defined. In order to measure advance for each goal, the target value (value that has to be attained) should be defined including the key performance indicator(s) measuring the advance toward the goal in time.⁹

Strategic documents usually cover period between 5 and 7 years, rarely more.

It is important to emphasize that the strategic plan or similar document cannot be adopted by command. It has to be developed through open-minded, democratic discussion among all (or most of) academic staff members. If developed that way its value is two-fold: it creates cohesion and team spirit among staff members, while at the end it will result in a shared, harmonized vision of the institutional future.

If there is a strategic plan or a similar document, all suggestions and recommendations made or proposed by the peers ought to be in line with the same. It is assumed that such document has been thoroughly scrutinized and, in most cases, approved by the responsible institution's body. If so, it has to be understood as a clearly defined institutional long-term policy and should have much higher priority than any suggestion or recommendation made by peers.

⁸ Sometimes it is also accompanied with slogan in Latin, used mostly for promotional activities.

⁹ More elaborated strategic documents contain also resources needed and persons/departments responsible for implementation of particular goals within given timeframe. For MET institutions, such specification is definitely not needed or even appropriate.

4 GENERAL PRINCIPLES

In order to ensure uniform application and effectiveness the implementation of the scheme has to respect several guiding principles. In particular, the scheme is expected to:

- 1) respect different concepts of quality and standards of work implemented at the host institution,
- 2) be based on holistic approach,
- 3) respect cultural differences,
- 4) respect “just culture” approach,
- 5) keep preparative workload to minimum,
- 6) minimize costs of evaluation, and
- 7) provide different modes of implementation.

1) In order to be globally acceptable the scheme has to be implementable at various and very different institutions: those that are part of the large universities as well as at small to medium independent institutions. The implementation of the scheme should be able to identify areas for improvement regardless of the size and financial strength of the host institution. However, in order to be properly applied it is required to identify the implemented concept of quality and standards of work. In that respect, implementation at large, government supported institutions will be inevitably different from the implementation at small, privately owned institution. It is the peers who are responsible to take care and to adjust the activities according to implemented concepts of quality and adopted standards of work.

2) The scheme has to follow a holistic approach. Consequently, the scheme should be focused on the institution and respective study program(s) as a whole. In other words, any facility, procedure or activity considered has to be checked against *fitness for purpose* criterion first of all. Consequently, any suggested or recommended action has to be compared with efforts and resources needed to implement it, including effects it may have on whole organizations or study programmes, and only if assumed benefits overcome efforts and resources required.

3) The scheme has to be implementable in very different cultural environments. The cultural environment heavily affects the student-professor relationship, attitudes, willingness to participate and many other areas of interpersonal relations. Therefore, particular attention has to be paid to cultural matters during interviews, data collection, communication with students, report writing, etc. Again, any suggested or recommended action has to be checked whether its implementation may be offensive or requires unwilling engagements.

4) Just culture is an atmosphere of trust in which people are encouraged for providing essential information on most important activities, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour for students as well as for staff. Such working atmosphere is highly important for all MET institutions if high academic standards are to be achieved. Consequently, the scheme has to promote all activities, measures or attitudes that help creating such working and learning environment.

5) The scheme has to minimize the workload required by the host institution staff. There are so many accreditation and accreditation-like procedures in higher education today causing obvious reluctance among academic staff towards any further scheme. However, certain engagement with the selected academic staff members is inevitable.

6) The cost of implementation of the scheme has to be affordable to MET institutions. In that respect, the scheme has to allow for different approaches: if an institution wants to implement a full-scale scheme then certain financial resources have to be ensured. On the other side, if available resources are limited then an institution can implement just the initial phase of the scheme, thus avoiding travel and accommodation expenses for the peers. In any case, the final outcomes will most likely be proportional to the efforts and resources engaged.

7) The scheme has to allow different modes of implementation thus allowing institution management to select mode they consider most appropriate. It should range from simple use of the project documentation as a reference material for internal discussion up to the full-scale comprehensive implementation with long-term engagement of the external peers.

Finally, it has to be emphasized that implementation of the scheme is voluntary. There are no external or other motivating factors to implement the scheme except the willingness of the institution management to improve the effectiveness of its activities. If that willingness is supported by the staff support then the scheme can provide the full effects.

5 IAMU PEER-ASSISTED SELF-EVALUATION

The main goal of the Peer-Assisted Evaluation Scheme (PAES) is to improve the quality of education and overall efficiency of an institution. It is a voluntary scheme and do not provide any form of ranking or approval of the institution.

The Peer-Assisted Evaluation Scheme consists of three distinctive phases:

- self-evaluation,
- verification, and
- validation.

Each of the phases is more elaborately explained in the following text.

5.1 SELF-EVALUATION

Self-evaluation is carried out using the PAES Self-evaluation Form.¹⁰ The Form is divided in nine different subject areas, each one covering a distinctive group of activities typically existing at modern higher education MET institutions. Main subject areas are:

- Organization and management
- Students
- Program
- Education process
- Academic staff and support personnel
- Professional training and internships
- Facilities and resources
- Program objectives and stakeholders involvement
- Continuing education

Each subject area contains several sub-sections with a number of enumerated statements. Each statement describes certain aspect of the institution, the program or activity commonly undertaken at higher MET institutions.

For each statement the evaluator, usually the senior member of the academic staff of the host institution is expected to respond with a number ranging from zero to ten. The answers should reflect the **degree of compliance** with each statement. Each number may be understood as a percentage of the compliance of actual practice with the particular statement. Therefore, if one fully agrees with the statement he or she would encircle number ten; if certain statement is not applicable to particular institution or an activity never occurred at the institution than the answer should be zero. Consequently, if a certain statement is partly true than evaluator should mark the number between two extreme values, the one that is closes to his/her own (subjective) assessment of the proportion of actual conformity.

¹⁰ See 8.1 Self-evaluation Form

The answers should reflect the actual situation, and not the future or past, no matter how close it may be. For example, if there are no simulators available at the time of filling the Self-evaluation Form then all answers to questions referring simulators should be zero; the fact that simulators will be operational within several months should not be taken into account.

The evaluator completing the Self-evaluation Form should be impartial and try his/her best to answer in accordance with his/her own opinion. One should try to avoid answering in accordance with prevailing opinion and especially to “protect” the institution. The main purpose of the Self-evaluation Form is to capture the real understanding of activities carried out at the institution. It is assumed that results will be used only to detect subject areas that have or may be improved, thus result should not be made public. Therefore, objective answers will provide very valuable facts about present status.

As well, one should try to “detach” the quality of certain activity from actual persons responsible for that activity. People usually give higher marks to activities their friends and close cooperatives are responsible for, and vice versa, tend to give lower marks to activities that are part of the responsibility of the persons who are more distant or with whom they have not so good relations.

Self-evaluation should be carried out by at least three evaluators. They should fill the Self-evaluation Form independently one of another. It is advised that evaluators selected to complete the Self-evaluation Form have at least certain management experience in higher education. Here, management experience is understood as a position of a rector/president, vice-rector, dean, vice-dean, head of department or any similar position at the institution requiring the person to assume coordination and responsibility for the work of other colleagues.

Evaluator completing the Self-evaluation Form should also have in mind that marks given should not be connected with any person or department but to the whole institution. So any person who has or had significant interpersonal issues should not be considered to act as evaluator.

After completing the Self-evaluation Form, the opinions collected have to be standardized. Standardization is a process by which the answers are made comparable, thus enabling the comparison of data sets with different means and standard deviations.

The main reason for standardization is the fact that some respondents tend to give higher marks on average while others tend to give lower marks. Standardization should be carried out using the formula:

$$Z_i = \frac{X_i - \mu}{\sigma} + 5$$

where X_i is a mark given (degree of compliance with a statement) to i^{th} statement, μ is a mean value of all marks given by one person and σ is a standard deviation of the whole set of marks. The value of 5 is added in order to make data more meaningful (standardized mark whose value is 5 or close is actually the average mark). In addition, the resulting data sets are rounded to one decimal place thus making detection of differences between comparable data much easier.¹¹

Self-evaluation, as a rule, may and should be carried out without external peers' involvement, and may be carried out few weeks before the site visit.

5.2 VERIFICATION

Verification is a part of the process carried out by external peers, before and during the site visit.

¹¹ The standardization can quite easily be carried out using provided Excel file where all statements are enlisted and standard Excel functions provide the necessary functionality.

5.2.1 Pre-site visit activities

Activities assumed before site visit aim to provide initial data on host institution structure and operations. The most important data sources available before site visit are:

- data supplied in advance by the host institution management and staff,
- data collected from institution’s web pages and other web-based sources of information, including data available from other official sources, whether web-based or not.

Data supplied in advance by the institution should give the basic information about institution, its history, present status and its “market position” i.e. its relations to the target groups (students, government, industry, etc.). These data do not need to be formatted; usually the data prepared as information to guests or to would-be students will suffice.

Data collected from institution’s web pages and other sources, taken together with previous data, may give comprehensive impression about institution, especially about the concept of quality it prefers. In some cases, data obtained through these sources could provide almost a complete picture about institutions while for some others only common facts can be obtained through these channels. In any case, web-based data are extremely important and frequently provide enough information for initial “characterisation” of an institution.¹² Today even the web pages scripted in national languages can be easily translated¹³ with sufficient accuracy, thus giving peers enough insight into institutional activities.

Useful information may be also extracted from the self-evaluation reports required by national accreditation authorities in many countries. These reports usually follow a rigorously prescribed format and in many cases contain exhaustive and systematic descriptions of all activities carried out by the institution during last reporting period. Such data may be very valuable, even if prepared in national language.

Collected data should be analysed. The facts collected should be connected with responses given by the evaluators; the relevant data and preliminary suppositions should be connected (“encapsulated”) in a way to clearly refer to main subsections of the Self-evaluation form.

Finally, data synthesis should be carried out. It is actually the integration of all data and development of working suggestions, recommendations and conclusions. It is worthwhile to emphasize that these activities cannot be easily separated, especially regarding time frame. Frequently, it is a cyclic process in which integration of new data forces peers to revalidate previous hypothesis and/or conclusions followed by another fact-findings etc.

Particular attention should be paid to standardized marks given by different evaluators. When comparing the standardized marks the peers should focus on:

- marks that are below average in all data sets, and
- marks that differ significantly.

Statements where all marks given by evaluators are below average (below five after standardization) clearly indicate underperformance. These statements will obviously require further investigation during interviews.

¹² Even the fact that there is no or very limited data on the Web substantially indicates the „market position“ of an institution.

¹³ Service is offered by Chrome web browser.

Significantly different marks given to the same statement by different evaluators also indicate a possible underperformance or subject area where improvements are possible. Particular attention should be paid to those statements one evaluator marked significantly below the average and other significantly above. Such difference as a rule indicates a very different understanding of the purpose and significance of related activity to the overall performance of the institution. In such cases, peers should before further considerations verify (during interviews with evaluators) whether the statement is properly understood by all evaluators. If it is not the case then (after further clarifications) amendments to the marks should be allowed.

Particular attention should be paid to those subject areas where more than one statement earned below average or different marks. These subject areas definitely present target areas where significant improvements may be possible.

Based on a thorough analysis of the Self-evaluation Forms the peers are expected to develop the list of subject areas that requires additional and thorough examination.

5.2.2 Activities during the site visit

Activities that take place during the site visit consist of different undertakings, the most important being additional fact finding, data analysis and data synthesis. Fact-finding mostly means verification and upgrading of the data already collected. In that respect peers may, depending on marks and comments, ask for additional documents, evidences, proofs, explanations, etc.

The most important source of data during site visits are prearranged personal contacts i.e. interviews. They give insight into internal relations within the institution, provide indications on institution ability to accomplish its goals, and give the most accurate impression on degree of internal organization of the institution.

Initial interview with management staff is probably the most important interview. It should develop through three distinctive phases. In the first introductory phase, the free exchange of information should be allowed. The peers should inform on aims, methodology and limitations of the process. The personnel should briefly present the institution and expectations from the process itself.

The second phase should be based on a selected list of subject areas, thus ensuring to cover consistently and uniformly all aspects of the institution work. During this phase, the peers should only check the appropriateness of the implemented standards of work and their effects on accepted concept of quality. The peers should refrain from all comments questioning the goals, aims or concept of quality set up at the institution. In particular, questions and comments referring to cultural issues have to be avoided. The basic set of questions to be raised during this phase should be prepared in advance but should not be presented to the management in advance. Requests for additional explanations, not prepared in advance, are allowed as long as they do not lead conversation astray and are not too time-consuming.

During the third phase the more informal approach should be followed, again allowing all involved to comment freely any aspect touched during interview.

Interviews with evaluators, persons responsible for certain subject areas and students should be more focused and effective interviews.

The most effective interviews are those started as a free conversation and then eventually turned into a structured question-and-answer session. The first, “soft” part helps to establish friendly relations. However, if conversation freely moves from topic to topic too long, the important aspects might be missed or too much time can be spent. Therefore, it is wise to switch, after a while, to a more structured conversation. The main topics in this part should be those subject areas where self-evaluation revealed

potential weaknesses requiring improvements. The main drawback of an overly formal style of conversation is unpleasant, and interrogative feelings could evolve. Such outcomes should be avoided at all costs because some important answers could be suppressed.

The interview with several members of key personnel at the same time is acceptable as long as peers are able to control the main course of conversation. Such interviews help to maintain friendly and relaxed relations among evaluators and those interviewed.

Interviews with evaluators and persons responsible for certain subject areas should concentrate on subject areas that earned below-average marks. After introduction into the subject the evaluators should be asked to explain why they assigned below average or significantly different marks to certain questions. The answers should be noted.

Interviews with persons who are directly responsible for the subject areas having below average or different marks need to start with a short explanation of the subject area. Then they have to be informed about the marks earned and asked about possible reasons for such marks. Finally, responsible persons may be asked to suggest possible measures to improve the present conditions as well as threats that could impede implementation of these measures. Administrative staff responsible for subject areas where no indications of weaknesses have been found need not be interviewed.

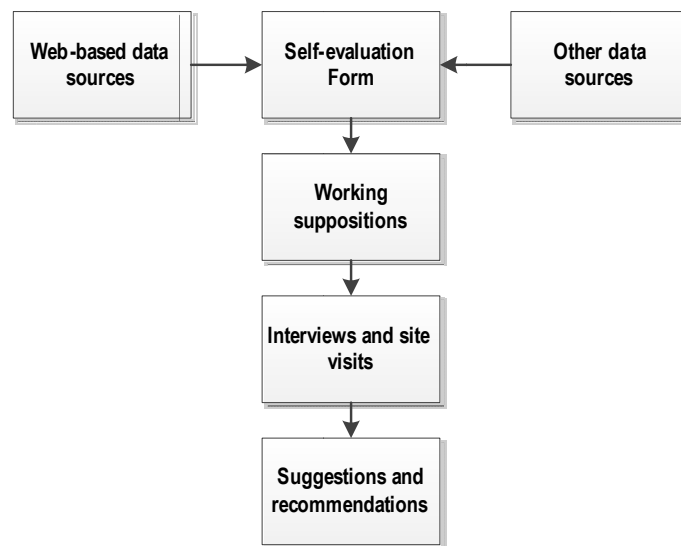


Figure 1 PAES workflow

Interviews with students should be concentrated on students' affairs. They should follow a more "soft" approach, leaving students to describe their views and opinions in their own language. These interviews may also be organized with more students at the same time.

Interviews with students usually quickly focus on issues considered important by the students. In that respect, interviews with students are a highly valuable part of the fact-finding process. However, statements and testimonies collected from the students should be carefully analysed due to fact that students usually do not take into account the whole education process. Consequently, the interviews with students who are close to graduation should be highly preferred.

5.2.3 Post-visit activities

After completing fact-finding activities, peers are expected to summarize findings in a Draft Action Plan. In fact, it is a list of measures proposed by the peers to the host institution management in order to improve certain aspects of overall efficiency of the institution.

It should be based on the:

- data and evidences collected,
- interviews with host institution staff,
- Self-evaluation Forms completed by evaluators,
- interviews with evaluators,
- interviews with heads of departments, quality system managers, etc.,
- interviews with students, and
- their own personal observations.

The Draft Action Plan has to contain, for each subject area:¹⁴

- short description of findings, and
- recommended goal(s) and measure(s) to be considered,

The Draft Action Plan should be handed over to the host institution management as soon as possible. It can be presented before the end of the initial site visit, during the subsequent visit(s) (if arranged) or can be sent by mail within few weeks after the visit. If necessary, the representative of the host institution can propose amendments, corrections or additions to be included in the draft Plan. After due considerations by the peers, the Action Plan has to be finalized.

Based on the agreed Action Plan (if it is so agreed) the measures that require further elaboration are selected. For these measures assigned host institution staff members, together with one or more peers, are expected to prepare the Implementation Plan.

The Implementation Plan should contain the steps to achieve the respective goal, actions required, resources needed, persons involved and responsible, timetables, etc. The extent of the tasks to be developed and task assignment process should follow the previous agreement between host institution management and peers.

5.3 VALIDATION

Validation is the final part of the PAES process. It is aimed to confirm the accomplishments of agreed measures, as planned in the Implementation Plan(s).

Validation takes place mostly during implementation of measures as well as after all the measures agreed and described in the respective Implementation Plan(s) are actually implemented.

During the validation phase it is assumed that largest part of the peers' engagement will be in a form of suggestions and guidance. The extensive site visits are not assumed. Communication between peers and responsible persons at the host institution during implementation are to be based on extensive use of e-mails and similar communication technologies.

In most cases, validation will be carried by one or more peers, depending on the complexity of the measures to be implemented. The number and duration of validation site visits, if any, will depend on

¹⁴ Both, the Action Plan and the Implementation Plans presumably follows the principles normally seen in strategic management documents. Therefore, principles and methods used in strategic management can be, with just minor adjustments, used when preparing these plans, too.

numerous factors (complexity of agreed measures, required resources and financial means, travel arrangements, etc.) and have to be agreed in each case separately.

5.4 REALIZATION AND OUTCOMES

In order to satisfy the principles enlisted in the Chapter 4 the PAES scheme has to allow several modes of implementation. Actually, there are three different levels of the scheme implementation, progressively increasing in complexity, required efforts, means, and achievements.

Abridged mode of implementation. The most simplified mode of implementation of the presented methodology is appropriate for institutions willing to investigate systematically the options for improvement but not willing to invest significant resources, time and efforts.

It consists of only the first step of the scheme, i.e. the institution management has to appoint a number of evaluators who have to complete the PAES Self-evaluation Form in a given time. After data sets are standardized the management has to decide on further steps which may be: to establish workgroups to further analyse certain subject areas or subareas, to appoint one or more development groups to propose further actions or to assign certain tasks directly to the persons already responsible for involved activities.

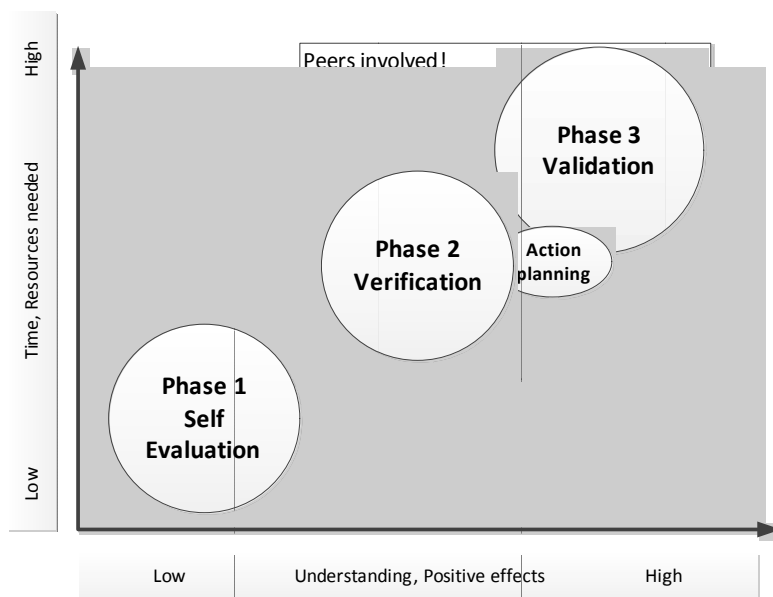


Figure 2 Modes of implementation

Nevertheless, a high impact of subjectivity and interpersonal relations on the results is the major drawback of this approach. Actually, it is a consequence of the absence of external peers. In this case, there are no independent experts who can ask questions and seek clarifications and who are not restricted by internal social influences. Credibility and integrity of results can be increased by involving more evaluators, thus increasing the “statistical power” of obtained results. However, this will involve more staff members with modest or no international and/or management experience, thus limiting the “transfer of competencies” effects.

The key advantages of this approach are the moderate resources needed, practically unlimited time to complete (although it may be the drawback as well), and minimal logistic efforts (there are no travel costs, no accommodations for peers, no interruptions of routine activities).

Standard mode of implementation. The preferred mode of implementation is the one that involves at least two, preferably three or more external peers.

It consists of first two steps of the described methodology: self-evaluation and verification. It may also include action planning, if it is so agreed.

The peers involved should be entirely independent from any host institution activities, should have recognized international experience in education as well as maritime background, should be familiar with the STCW Convention and recent IMO efforts and goals, fluent in English (or be able to communicate in the host institution working language), and should be impartial, systematic and broad-minded. It is the institution who will select the peers; however, the IAMU could help in this respect by maintaining the pool of experts who are willing to act as peers.

There are several issues that have to be considered when this mode of implementation is considered:

- it will create additional workload to be borne by institution management, selected evaluators, heads of departments and other staff members;
- it will inevitably cause certain interruptions of routine activities or their delays;¹⁵
- it will impose additional costs to be sustained by the home institution or to be secured somehow; they include travel expenses, lodging and other assigned or agreed costs connected with peers' visits.

On the other side, this mode of implementation probably offers the best cost-benefit ratio. The advantages, among others, include:

- peers bring a lot of international experience and could suggest a number of solutions for identified issues;
- discussions with peers would provoke a need to justify why certain activities are performed in a particular way; it can be very helpful, particularly in respect of activities that are carried out in particular manner just “because we do that so from the beginning”;
- the mere presence of the peers who are entitled by the institution management to ask questions and explanations will provoke a change in attitude, particularly among younger staff members and those who are keen to present itself as experts in their fields;
- peers are not bound by internal interpersonal relations; they can quite easily ask the right (unpleasant) questions and in that sense help the management to overcome related issues;
- peers, being independent experts, could help resolve internal disagreements, mostly those related to professional issues;
- by probing internal processes peers will inevitably raise interest and discussions about possible future developments and overall strategic goals; such discussion, if properly guided, will of itself promote the team spirit and cooperation.

This mode of implementation is concluded when peers finalize the Visit Report and Action Plan.

Extended mode of implementation. This mode of implementation is the extension of the standard mode of implementation and offers the most prominent results but requires significant efforts, both by the home institution staff and by peers.

¹⁵ It is assumed that site visit last for at least two-three working days, probably more.

It follows after activities outlined in the Standard mode of implementation section and consists of two distinctive phases:

- preparation and assessment of each Implementation Plan (plan prepared for agreed actions/measures enlisted in the Action Plan),
- validation of activities and follow-up in case of non-compliance with agreed plan.

The Action Plan is a part of standard mode of implementation. It contains recommendations on further activities aiming to improve the quality and efficiency of all institutional activities.

Implementation Plans are plans describing in details the measures that will be implemented in identified subject areas. The development of the draft Implementation Plans can be entrusted to one or more peers, or to workgroup appointed by the institution management; in later case peers would act as advisors and/or coordinators.

During implementation of agreed Implementation Plans peers should be required to provide support in the form of advice, or can assume preparation of supporting documentation. And, at the end, it is assumed that peers will actually pay a visit and confirm that plans are realized as agreed.

The main disadvantages to be expected in case of this mode of implementation are essentially the same as those experienced in case of Standard Mode of Implementation, the most important being costs caused by extended peers' activities.

The advantages are as follows:

- the processes to be improved have to be described and elaborated in much more details;
- more thorough action planning will result with much higher probability of success;
- the possibility of undue delays is minimal; more or less fixed timetable of peers' visits or due reports would additionally stimulate those involved to follow agreed Implementation Plans.

It is worth noting that the scope, duration and targets of the Extended Mode are highly dependent on actual circumstances and the targets defined by the home institution management. In this respect, a number of additional assignments may be added to the goal list, such as establishment of new departments or facilities, development of new programs or education of the academic staff, trainers and instructors.

Outcomes. During the implementation of the PAES scheme the number of reports will be developed. The most important are as follows:

- Self-evaluation Forms completed by evaluators,
- Report on Standardized marks (derived from PAES Self-evaluation Forms),
- Site visit reports (prepared by head of the peer team),
- Action Plan (draft and final; prepared by the head of the peer team, as a part of the respective site visit report),
- Implementation Plans (drafts and finals; developed by the head of the peer team),
- Final Report (prepared by the head of the peer team after all activities planned in the Action Plan are concluded).

It is assumed that all reports will be made public unless it is against the host institution policy.

5.5 SUBJECT AREAS

Subject areas, as a section of the self-evaluation form, cover nine distinctive groups of activities that can be found at any modern higher education MET institution. Each group contains several subsections with statements referring to the most important activities.

The subject areas and associated statements do not cover absolutely every aspect of the institution's life. The statements selected are those that most clearly indicate the level of attainment of institutional goals. In that respect any significant difference between marks assigned to a particular statement should indicate possible area for improvement.

It is assumed that in case of the standard mode of implementation of the Scheme peers will ask for supporting evidences. Evidence of any kind -- formal documents, published information (on internet, intranet or in paper) and/or informal practices used at the institution -- may be considered as relevant proof of particular activity.

5.5.1 Organisation and management

This section includes several subsections dealing with general information and information on overall legal status of the institution, institution policy, funding, and implemented quality management system. The main aim of this area is to identify the general structure of an institution and to evaluate organisational and management efficiency.

The General information Subsection aims to investigate the status and structure of the legal documents regulating the management structure and lines of responsibilities at the institutional level. In addition, it queries the availability of those documents as the main prerequisite for their proper implementation.

The Subsection on Institution Policy aims at strategic documents, developed action plans and policies for everyday activities at the institution (e.g. enrolment policy, Code of Ethics, development of academic and supporting personnel...). The existence and development of these documents as well as their availability are prerequisites for successful long-term management of the institution.

The Subsection on Funding seeks information on sources, types and suitability of the existing financial resources available. The main target of the subsection is to prove that stable and sound financial resources ensure long-term activities of an institution.

The Subsection on Quality Management System covers institutional quality system. The statements of this section describe the applicability of the institutional quality system, availability of quality management documentation and personnel, and appropriateness of the implemented procedures. It is assumed that during site visit a brief presentation of the quality management system will be shown.

5.5.2 Students

This section deals with students' activities at the institution. The objective of the section is to evaluate all student-related activities and procedures, from admission to graduation.

The Subsection on Admission aims to investigate requirements and procedures during student enrolment as well as implementation of additional evaluation criteria applicable only at MET institutions. In this part particular emphasize on data available to students are expected.

The Subsection on Student Body Structure investigates the overall student's numbers with emphasis on the appropriateness of the size and structure of students' cohort. The statements in this subsection requiring particular attention are those on drop-out rates and misbalance of students' numbers.

Statements collected under the Evaluation of Student Performance subsection aim to assess quality of the overall education process and assessment performance. The section covers wide range of topics directly related to the quality of the study process. It is assumed that during site-visit brief information on student's achievements will be presented. Also, statements on assessment procedures as well as overall assessment process, including methods of assessment, use of records and evaluation of the process can be found in this subsection. Particular emphasize has to be paid to the fact that assessment procedures are clearly defined in the STCW Convention and, as such, have to be implemented at MET institutions. In this respect, sample evidences of assessment of practical skills are expected to be demonstrated, as well as use of evaluation criteria prescribed by the STCW Convention in the study process.

The Subsection on Student Mobility examines active participation of the students in international (or national-level) activities and cooperation.

The Subsection on Graduation examines graduation process. It is assumed that requirements and procedure for the graduation will be presented as required for at least one STCW study programme.

Statements dealing with Critical Thinking emphasise the need to promote critical thinking and other creative and problem-solving techniques beyond requirements of the STCW Convention.

Students' Mentoring and Advising, being formal or informal, is important part of the modern education. Consequently, statements in this section examine the system implemented. It is assumed that efficiency of the mentoring system will be examined during interviews with students,

5.5.3 Program

Program area comprises a broad range of questions and statements covering topics on program objectives, structure, conformity, consistency as well as on program development. The objective of the program subject area is to evaluate the program as a whole, with particular attention paid to evaluation and conformity of the program with the requirements of the STCW Convention. However, the section is not restricted to the STCW-related subjects but covers also those areas of education common for all higher-education institutions.

The Subsection dealing with Curriculum Development examines development of curriculum as well as procedures used to amend or upgrade it. Section assumes that Curriculum Committee or similar body exists at the institution and that it is responsible for related processes.

The Subsection on Program Objectives contains statements outlining program goals and learning outcomes. It assumes that study program in question is competence-based program, thus learning outcomes are described as competences. In that respect it is expected that learning outcomes are clearly related to the STCW subjects, where it is appropriate.

The Subsection on Program Structure examines program structure as a whole, in particular student's workload and availability of program courses' descriptions.

The Subsection on Program Conformity inspects formal conformity of the study program with requirements contained in the STCW Convention. It is assumed that proofs of formal approvals by the national maritime administration will be presented.

The Subsection on Program Consistency highlights importance of the adequacy of the program contents. Areas examined are the ratio of front-end and practical training and other types of training/lectures, levels of study load, learning outcomes appropriateness, suitability of academic calendar and measures used in respect to underperforming students and those who are performing significantly above average.

The Subsection on Textbooks and Reference Materials contains statements on availability and appropriateness of the teaching materials, both in general-subject areas as well as in STCW-related subjects.

The Subsection on Communication Skills examines methods to improve communication capabilities of students, particularly the ability to speak and to comment professional subjects in English.

The Subsection on Understanding of Global, Economic, Cultural and Societal Issues examines presence, quality, and scope of subjects covering non-STCW subjects. The subjects in this group include those dealing with world or national economy, culture, communication and similar. It is assumed that students of the university-level study programs should, at least in certain areas, acquire wider understanding of underlying processes, beyond STCW requirements. If an institution offers only vocational training then statements contained in this subsection should be taken just as something to be considered.

The Subsection on Teamwork Skills aims to examine significance paid to management and teamwork related subjects in the program. Although these subjects are today part of the STCW Convention the importance they bear in all safety related activities on board ships justifies separate examinations.

5.5.4 Education process

The section dealing with Education Process covers activities related to delivering lectures, use of teaching modes and availability of training ship. Implicitly, it aims to evaluate academic staff competencies, their workload and performance and to provoke use of different modes of delivering, including use of up-to-date teaching modes and practical training on training ship(s).

The Subsection on Delivery examines appropriateness (competence, workload) of the academic staff as well as delivery modes. Few statements deal with record-keeping and maintenance.

The Subsection on Use of Various Types of Teaching Modes investigate use teaching modes, particularly emphasizing application of modern methods, such as e-learning or CBT. Also, possibility and availability of different teaching modes are examined, as well as opportunities to improve delivery.

The Subsection on Training Ships examines availability and use of training ships for practical training. Statements examine training practice, time on board, quality of accommodation and available equipment, type of assessment, if any.

5.5.5 Academic staff and support personnel

In this subject area detailed information (size, experience), assigned tasks and development of the academic staff and support personnel are examined. The familiarization, conditions of employment, promotion and professional development procedures and interaction with students are identified. The main objective of this subject area is to evaluate quality of activities carried out at the institution level from the standpoint of academic staff and supporting personnel.

The Subsection on Familiarization examines how good academic staff is informed on objectives of the program and what procedures are followed for recently joining staff as well as for visiting staff.

The Subsection on Task examines how participation of the academic staff in the improvement processes (revision of the program, peer review participation) is examined. Also, the availability of detailed information on staff and their workload is assumed.

The Subsection on Size evaluates the ratio between academic staff and students as well as suitability of the supporting personnel. The ratio of less than 1:20 is assumed (academic staff : students). The assumption is based on the fact that maritime education and training, particularly practical and

simulator trainings are time-consuming activities requiring more instructors than, for example, studies in Economy or similar areas.

The Subsection on Experience examines formal and informal working experience and educational background of the staff. Statements deal with pre-teaching experience, on-board experience to be gained while teaching as well as professional experience and English speaking performance of the academic staff.

The Subsection on Promotion examines promotional policy at the institution. It has to be emphasized that institutions that are part of the universities will have promotional policy given by the parent institutions. In that respect, independent institutions will have much more freedom to create their own promotional policy than those being a part of the larger institutions.

The Subsection on Selection covers institutional policy regarding academic staff employment. The most important aspects are those relating to importance of on-board experience and academic achievements. In addition, employment procedures are investigated.

The Subsection on Professional Development investigates staff members' professional development procedures. Important part requiring quite delicate approach during site-visit interviews are statements about underperforming teaching or underperforming performance of the supporting staff. It is assumed that these statements will be correlated with the students' feedback on teaching quality.

The Subsection on Scholar Activities deals with requirements and procedures dealing with research activities performed at the institution and their influence on academic staff promotion. Again, this part of the process highly depends on institutional policy on scientific research. Usually, research projects are important activity for institutions that are members of the university. For independent institutions, offering only vocational education, this subsection bears no significance.

The Subsection covering Interactions with Students covers educational and non-educational time and efforts academic staff spent with students, such as individual coaching, participation in students' voluntary activities, etc.

5.5.6 Professional training and internships

Professional training and internships (as a subject area) comprises of subsection dealing with certification policy and with on-board training. In a way, the main objective of this subject area is to examine implementation of the requirements of the STCW Convention in respect of certification (CoC and CoP).

Subsection on Certification examines whether regular educational process lead students lead to STCW certificates.

The Subsection on On-board Training examines organization and management of on-board training (if institution is responsible for such training) as well as procedures in cases when minimal requirements are not satisfied.

5.5.7 Facilities and resources

In this subject area, the available use of facilities and resources in the educational process are examined. Subject area covers classrooms, training facilities used for practical training, simulators, libraries, and other supporting facilities, IT resources and personal safety as well as respective procedures and development policies. The main objective is to evaluate size, number, quality and appropriateness of each facility or resource as a whole, and in respect of STCW requirements.

The Subsection on Classrooms examines number, type, size, quality (e.g. built-in equipment) and, in addition, the overall appropriateness of the classrooms for up-to-date lectures delivery.

The Subsection on Training Facilities deals with facilities (e.g. specialized laboratories, lifeboat and/or life rafts, swimming pools,...) used in practical training in the STCW competencies. Procedures for using those facilities are described. This subsection requires comprehensive examination of facilities during site visit as well as careful interviews with instructors using these facilities.

The Subsection on Simulators examines the availability of simulators (including simulating capacities) as well as associated procedures in order to fulfil respective STCW requirements. Furthermore, it also demands evaluation of instructors experience and obtained certificates, as required.

The Subsection on Institutional Support and Resources explores support activities offered by administrative staff. Beside appropriateness it considers their maintenance, availability as well as planning and developing procedures.

The Subsection on Library deals with quality of library services offered to students and academic staff. It examines quality and availability of teaching materials (books, journals, databases...), availability of the database offered to students as well as overall support the library staff provide. It is important to emphasize that the most important criteria is whether services offered by the library are commensurate to the size and needs of the institution or not.

The Subsection on Students Support Facilities investigates availability and appropriateness of the services supporting students' life, especially those providing food and lodging, health, counselling, and related social services. It is worthwhile to note that statements in this section, particularly those describing social environment at an institution, must be comprehended taking into account common social tradition in the local community.

The Subsection on Information Technology examines institutional IT equipment and associated software, availability of adequate and experienced IT supporting personnel (for academic staff and students) as well as institutional supports in developing and maintaining web-based teaching materials and other e-based teaching modes.

The Subsection on Personal Safety aims to identify rules and requirements governing occupational health, in particular institutional safety policy, presence of emergency procedures and plans, frequency of evacuation trainings, availability of first aid means in different facilities and safety procedures during practical training. The statements in this section need to be verified particularly during students' interviews.

5.5.8 Program objectives and stakeholders involvement

The Program Objectives and Stakeholders Involvement section deals with major stakeholders and their involvement in the education process, with particular emphasize on program upgrade strategy, stakeholders' feedback and student employment information. The main objective is to confirm stakeholders' involvement in improvement processes. It is assumed that stakeholders usually involved include individuals (outside the institution) whose partnership is essential, the most important being shipping industry, alumni and the maritime authorities and administration.

The Subsection on Stakeholders aims to investigate the main stakeholders, as identified by the institution.

The Subsection on Stakeholders Involvement investigates modes of cooperation with major stakeholders, in particular the formal and informal influence they may have along with their participation in evaluation of the overall education process.

The Subsection on Program Upgrade Strategy investigates stakeholders influence on programs and their amendments.

The Subsection on Response to Stakeholders Feedback aims to detect the level of formal institutional response to stakeholders' initiatives.

The Subsection on Student Employment covers information on institutional efforts, engagement and support to students' employment.

5.5.9 Continuing education

The Subject area on Continuing Education examines possibilities for students' further education and professional training offered by the institution. It aims to evaluate education and training provided by the institution above and beyond the regular educational process.

The Subsection on Students Further Education deals with additional education offered to the graduated students, such as postgraduate studies and specialized courses not covered by the STCW Convention.

The Subsection on Further Professional Training focuses on continuous professional development courses, including courses leading to CoP, custom-designed courses for maritime administration and shipping industry, as well as information on institutional participation in collaborative research projects for industry and other stakeholders.

6 GUIDANCE FOR EXPERTS ACTING AS EXTERNAL PEERS

6.1 EXTERNAL PEER PANEL

The PAES evaluation is carried out by the experts appointed to act as members of the External Peer Team. The list of all experts (Panel of External Peer Experts) is supposed to be maintained by the IAMU Secretary Office.

Nomination. The IAMU member institutions nominate experienced professors, either active or retired, to the IAMU External Peer Panel (EPP). The nomination to the Panel should be considered an honour and a reward for teaching achievement.

The proposal for nomination should include:

- educational history,
- teaching experience,
- maritime background.

The External Peer Panel should consist of no more than 20 peers. Each nomination should be approved by the IAMU International Executive Board (IEB). When approving nominations the IEB should take into account the need to cover all IAMU regions.

Peer qualification. Nominees for the Peer Panel should have the following characteristics and skills:

- a genuine interest in improving maritime education worldwide,
- appropriate formal education and degree(s),
- substantial experience with program quality improvement activities,
- ability to work in a team-based environment.

In addition, the nominees should be:

- experienced in quality management system,
- experienced in accreditation activities and/or assessment of teaching institution, program,
- familiar with management of the MET institution,
- familiar with the IMO activities and regulations, implementation of the STCW Convention, etc.,
- fluent in English language.

Training. All nominees who are approved by IEB are required to study the PAES Manual and follow documents and procedures.

6.2 ON-SITE VISITING TEAM

Visit Initiation. Upon request of a member institution to the IAMU Secretary Office for an evaluation visit the Office will:

- appoint a team of peers from the External Peer Panel,
- assign the head of the team,
- schedule the visit and

- communicate the decision to the team members and host institution.

The size of the team depends on the number of programs delivered on the host institution.

Team Responsibilities and Expectations. The purpose of Peer Expert team is to assist in evaluation the extent to which a program and institutional organization complies with educational objectives and satisfies the relevant requirements and criteria. The visit agenda is based on the assignment and agreed with the member institution.

Team composition. Depending on the request from the host institution, the peer team might consist of any number of experts, starting with a single person up to a team that includes a team chair and one evaluator for each program being evaluated. Regardless of the number of peers, all reviews are a team effort, and the findings and recommendations from each review are team decisions.

Conflict of interest. No conflict of interest is anticipated in the peer assisted evaluation. However, any possible conflicting situations should be avoided while forming an evaluation team, and during the visit.

Considering specifics of the country and the institution. Peer experts must approach every institution and program's review with a thorough understanding of the educational and cultural environment within which it operates. Educational and cultural environments are different, of course, in different parts of the world. These differences need to be understood in order for a visit to be successful. The peers need, before visiting the institution, to acquire additional knowledge and understandings to be successful. Acquiring these knowledge and understandings will enhance their ability to apply the evaluation criteria accurately and recommend appropriate actions.

Cultural specifics. In order to feel comfortable while acting in other cultures one should focus on similarities rather than differences. The extent of individualism in a given culture correlates with that culture's value of time, i.e. local customs and practice of planning, scheduling, and punctuality.

Another important consideration is the fact that language reflects culture. Therefore, during interviews of students and academic staff in some cultures, confronting an issue directly may not elicit the information desired. The peers may need to alter the questioning to be more implicit and recognize the answer they might receive is non-responsive or a deflection of the issue. The ability to recognize these situations will benefit the review of the institution and program.

Customs and behaviour. Prior to the visit, team members are encouraged to learn about the host country and its customs. Customs and behaviour may vary or differ greatly from that in the peer's own country. Although uncomfortable, expecting the unusual can provide a feeling of preparedness. It is not possible to provide the customs and etiquette for all potential visits. Nevertheless, the following few examples will make peers aware of the need for pre-visit research and learning.

- Colours may have significance. For example, in some countries, the colour white is related to death while in some others it symbolise life.
- In some countries, showing the soles of your shoes when seated is considered an insult.
- In some countries, shaking hands while the left hand is touching the right forearm or wrist is a sign of respect to someone in higher station.

Diversity. The peer should be prepared for possible diversity within educational institution and its programs. While some may think that lack of diversity is a detriment to the educational process, the evaluator must set that thinking aside and evaluate, within the environment they reside, how the institution and programs attain compliance with the objectives. However, if a curriculum is offered in multiple settings or delivery modes, all paths to the degree must be reviewed

6.3 PREPARATION FOR A VISIT

Planning the visit. Proper planning can reduce a stressful situation to an enjoyable diversion. Peers are strongly encouraged to cooperate closely with host institution representatives regarding travel arrangements and accommodations. All arrangements should be completed far in advance in order to minimize the expenses.

Travel preparation. Peers should take care of their travel documents, contact information, medications, a set of clothes and other necessities in the carry-on luggage in the event of lost or delayed luggage.

Country Access and Visas. Along with a valid passport, visas may be required to enter and exit certain countries. The requirement and availability of visas and their costs can be obtained by contacting the country's consulate office in the country of the peer's residence. In this situation, the member institution should provide the necessary assistance in facilitating the peer's visa applications.

6.4 PEER RESPONSIBILITIES AND CONDUCT DURING A VISIT

Responsibilities. The role of a Peer Expert participating in an on-site evaluation visit is very significant and important to the institution, to IAMU and to the greater community of maritime education and training. As a team member, the Peer Expert is expected to provide knowledge concerning educational practice and continuous quality improvement. His commitment is critical to a successful visit, for the program and the overall team outcomes. A thorough visit involves careful pre-visit preparation, strong on-site observation, analysis and communication skills, sound judgment, and the ability to develop and communicate succinct conclusions.

Goals and Guiding Principles. A Peer Expert is expected to develop a qualitative and, where applicable, quantitative understanding of the educational objectives and the extent to which the institution and program(s) meets them and how different stakeholders are satisfied by the program. The guiding principle of the on-site evaluation visit is to stimulate the improvement of program and the educational process and to encourage new and innovative techniques in maritime education and training.

Code of Conduct. Team members represent IAMU. As such, each team member is expected to exhibit the highest standards of professionalism, honesty, and integrity, based on impartiality, fairness, and equity. All persons involved must perform under the highest standards of ethical behaviour. Team members are expected to interact with institutional personnel in a professional and collegial manner, and to be helpful as appropriate in assisting them in the program improvement.

Dress code. Casual attire is appropriate for travel to and from the evaluation site. However, business dress is suggested during the evaluation visit. Business suits or coats and ties for men and business suits or dresses for women are appropriate. Team members should also consider the climate at the visit site and remember to check the forecast weather for the site location when packing for the visit.

Behaviour. Each team member's actions reflect on IAMU. Therefore, it is essential that each team member act in a professional manner, showing appropriate professional respect for institutional personnel and students. During all on-site visits, team members are the face of IAMU. Professional courtesy are required and work well throughout the world. When faced with an unknown situation, watching and taking the lead from the host institution representatives can often reduce or eliminate a potential embarrassment. During the visit, the host institution representatives can be a valuable resource in addressing significant cultural issues that may arise.

Gifts. In some countries, it is customary for the host to offer gifts to team members. These situations must be handled with tact and without embarrassment or insult to the giver. During the visit, the head of

the team is the arbiter in these situations. The acceptance of token gifts during visits is not considered in violation of any policy prohibiting gifts. Examples of token gifts include pens, books by local authors or of local interest, jam, jelly, candy, boxes of tea, and bookmarks. Most of these token gifts had the college or university name, or seal on them or were made in the local region or country being visited.

Invitations to meals, social events, or sightseeing tours. The team might anticipate invitations to and pre-arrangements by the institution for receptions, meals, and social events. In some cases, it would be culturally insensitive to decline. Besides, it might help team members to build rapport and improve communication. However, accepting sightseeing tours held by a company/agency should be avoided: the team member should arrange, set up, and pay for any sightseeing tours directly without involvement of the institution.

Use of titles and names. In many countries, the use of a person's title is a sign of respect. Using it correctly is paramount to good relations. This requires pre-visit research. Usually, the host institution representatives (or a contact person) will be the best resource for titles and how to use them correctly. The exchanging of business cards might be a rather formal process. In some countries, presenting the business card with both hands, with the text up and facing the receiver for direct readability, is considered a sign of respect. Likewise, receiving the card with both hands is also considered a sign of respect.

Religion and politics. In many countries, there is a predominant religion that most practices. Understanding how that religion influences the institution's activities and delivery of the program can aid the peers understanding. There are also times when religion will factor directly into the visit. For instance, in some countries, the call to prayer will interrupt review activities, and team members must respect that interruption. In coordination with the host institution representative, daily schedule can easily accommodate those interruptions. Understanding the internal and external politics of the institution can help the peer team to understand underlying issues of the program. Additionally, it should be understood that any statement officially made might be used by the program, institution, or government in ways unexpected to the IAMU team. Therefore, team members must carefully consider the text chosen in the statement, relative to it being interpreted incorrectly or taken out of context.

6.5 POST VISIT ACTIVITIES

Post-visit clarifications and/or explanations. Upon a request from the head of the team, after the visit the peers are expected to provide clarifications and/or additional explanations on the findings and recommendations related to the on-site visit.

Confidentiality. Although details of findings should be discussed with faculty members, the team's deliberations are confidential, and all information about the institution and its programs that team members obtain, is confidential without time limit and should be discussed only with appropriate institutional representatives and within the team.

Findings and recommendations may be made public only after clear consent from the host institution, including permission regarding using the name of the institution.

7 CONCLUSIONS AND RECOMMENDATIONS

The Peer Assisted Evaluation Scheme aims to improve the organizational aspects of MET institutions as well as programs delivered. Its main features are:

- Appropriately implemented, the Scheme offers a systematic approach to identification of activities that may be improved, methods to decide on actions leading to the identified goals as well as verification processes.
- The Scheme encourages international transfer of knowledge and competencies, while taking into account local culture, tradition and social and economic environment.
- Being based on the “just culture” premise it promotes open minded discussions among management, staff members, students and peers on possible modes of improvements.

The Scheme is developed by having in mind IAMU member institutions, i.e. institutions offering university level education leading to the highest STCW Certificate of Competence. However, it may be adjusted and used by those institutions offering programs leading to other CoCs.

Authors sincerely express their gratitude to all members of the Advisory Board, in particular to Glenn Blackwood and Catherine Dutton, from Fisheries and Marine Institute of Memorial University of Newfoundland, Canada, Nil Guler from Istanbul Technical University, Turkey and Takeshi Nakazawa, Secretary of the International Association of Maritime Universities, on their support and willingness to help the project development.

Authors also express their gratitude to all staff members and students of the hosting institutions, particularly to those academic and supporting staff members as well as students who were directly involved in the evaluation process, for warm and friendly welcome and their willingness to help project team members.

[This page has been intentionally left blank]

8 ANNEXES

8.1 SELF-EVALUATION FORM

[See next page]

Full Name of Study Program: _____

Host institution representative _____ (Name and title)

Peer A _____ (Name and title)

Peer B _____ (Name and title)

Peer C _____ (Name and title)

Place _____

Date of assessment completion ____/____/____

Degrees of compliance (from low to high)

1 Organization and management

1.1 General information

1. Statute or similar document covering the most important institution regulations is appropriate and available¹⁶.0 1 2 3 4 5 6 7 8 9 10
2. An organizational structure (chart) revealing lines of responsibilities is available.0 1 2 3 4 5 6 7 8 9 10
3. Personal data on institution management in charge are available to general public.0 1 2 3 4 5 6 7 8 9 10
4. Responsibilities and privileges of administrative officers, academic staff and students are approved, appropriate and available.0 1 2 3 4 5 6 7 8 9 10
5. The process by which rules and regulations are approved is appropriate and available.0 1 2 3 4 5 6 7 8 9 10
6. Academic staff is duly informed on rules and regulations, as amended.0 1 2 3 4 5 6 7 8 9 10

¹⁶ The term *available* means in printed, at intranet or on the web.

1.2 Institution policy

1. Institution mission, vision and goals are adopted in the institutional strategy or in a similar strategic document.0 1 2 3 4 5 6 7 8 9 10
2. Institutional strategy or similar strategic document is appropriate and available.0 1 2 3 4 5 6 7 8 9 10
3. A person responsible for promotional activities is appointed.0 1 2 3 4 5 6 7 8 9 10
4. Mechanism to protect the educational mission from any revenue-generated pressures is clearly described.0 1 2 3 4 5 6 7 8 9 10
5. Institution adopted and implemented the Code of Ethics or similar document.¹⁷0 1 2 3 4 5 6 7 8 9 10
6. There is a clear guidance dealing with conflict of private interests of academic staff.0 1 2 3 4 5 6 7 8 9 10
7. The institution antidiscrimination policy clearly prohibits differential treatment of applicants, students or staff on the basis of age, religion, sex, national origin, race or sexual orientation.0 1 2 3 4 5 6 7 8 9 10
8. Institution identified and publicly proclaimed the professional attributes (attitudes and behaviours) it wishes to promote (i.e. standards of professionalism).0 1 2 3 4 5 6 7 8 9 10
9. There are mechanisms by which students, academic staff members, and/or staff, can report unprofessional behaviour.0 1 2 3 4 5 6 7 8 9 10
10. A formal description of the follow-up measures in case of unprofessional behaviour is available.0 1 2 3 4 5 6 7 8 9 10
11. There is a documented policy dealing with the academic staff-student relationship, including procedures that ensure fair and prompt handling of violations.0 1 2 3 4 5 6 7 8 9 10
12. Students' representatives take part in all disciplinary actions that may adversely affect the status of a student.0 1 2 3 4 5 6 7 8 9 10

1.3 Funding

1. Institutional funding is secured and information on financial accountability is available.0 1 2 3 4 5 6 7 8 9 10
2. Program budget is appropriate for defined goals and required resources.0 1 2 3 4 5 6 7 8 9 10
3. Institution management provides a comprehensive financial report at least once a year.0 1 2 3 4 5 6 7 8 9 10
4. Institution maintains thorough accounting service.0 1 2 3 4 5 6 7 8 9 10

¹⁷ Code of Ethics has to include duties and responsibilities of academic staff, support personnel and students. There may be two codes, for example for employees and for students.

1.4 Quality management structure

1. Quality management documentation is available.0 1 2 3 4 5 6 7 8 9 10
2. Quality management certificate is valid and available.0 1 2 3 4 5 6 7 8 9 10
3. Quality manager is properly trained and formally appointed.0 1 2 3 4 5 6 7 8 9 10
4. Independent evaluation of the implemented quality system is ensured.0 1 2 3 4 5 6 7 8 9 10
5. Quality assurance procedures include “feedback” mechanism, so that all identified nonconformities brought to the attention of those persons responsible for remedial actions.0 1 2 3 4 5 6 7 8 9 10
6. Documentation describing corrective actions for identified deficiencies is available.0 1 2 3 4 5 6 7 8 9 10
7. Annual reports containing key performance indicators are prepared and available.0 1 2 3 4 5 6 7 8 9 10
8. Audit reports are submitted to national maritime authorities on time.0 1 2 3 4 5 6 7 8 9 10

2 Students

2.1 Admission

1. Criteria and policies for the selection of students (admission requirements) are fair. Procedures are evidence-based and in accordance with published documents.0 1 2 3 4 5 6 7 8 9 10
2. The Student’s Guide (or similar documents) comprising admission requirements is appropriate and available.0 1 2 3 4 5 6 7 8 9 10
3. All decisions regarding the admission of students are made by the Admissions Committee (or similar body).0 1 2 3 4 5 6 7 8 9 10
4. Holding a valid STCW CoC is validated as a bonus in the student admission process.0 1 2 3 4 5 6 7 8 9 10
5. Students are obliged to undergo appropriate health examination in accordance with national maritime requirements, or be informed that such examination is prerequisite for shipboard career.0 1 2 3 4 5 6 7 8 9 10

2.2 Student body structure

1. Data on student body structure are available.0 1 2 3 4 5 6 7 8 9 10
2. Number of students following different semesters is balanced.0 1 2 3 4 5 6 7 8 9 10
3. Overall and yearly drop-out rates are acceptable.0 1 2 3 4 5 6 7 8 9 10

4. Percentage of students required to re-test or to re-entry a particular course is acceptable.0 1 2 3 4 5 6 7 8 9 10

2.3 Evaluation of student performance

1. Institutional assessment strategy is clearly defined for the whole educational process.0 1 2 3 4 5 6 7 8 9 10

2. Performance or assessment criteria are well defined for all subjects and published.0 1 2 3 4 5 6 7 8 9 10

3. Assessment procedures (approach to assessment and evidence gathering, the assessment process, methods and assessment tools) are clearly defined for each subject.0 1 2 3 4 5 6 7 8 9 10

4. Student achievements (i.e. knowledge, skills and competencies) for each course and the program as a whole are systematically assessed using a variety of appropriate methods.0 1 2 3 4 5 6 7 8 9 10

5. Student cheating during exams is effectively prevented. Marks represent actual competencies.0 1 2 3 4 5 6 7 8 9 10

6. Students are provided with compendia, questions corpuses and examination try-outs.0 1 2 3 4 5 6 7 8 9 10

7. Formative assessment (e.g. practice tests and/or study questions with feedback) is promoted and used as appropriate.0 1 2 3 4 5 6 7 8 9 10

8. Summative assessment of students' knowledge and skills is required for all courses requiring knowledge or understanding as learning outcomes.0 1 2 3 4 5 6 7 8 9 10

9. Written examinations are the most preferred mode of assessment of subjects dependent on theoretical knowledge.0 1 2 3 4 5 6 7 8 9 10

10. Students' problem solving skills are formally assessed.0 1 2 3 4 5 6 7 8 9 10

11. Methods for demonstrating competencies conform to those defined in respective section of the STCW Convention, as appropriate.0 1 2 3 4 5 6 7 8 9 10

12. Evaluation criteria, as defined in the STCW Convention, are used in assessment of STCW-related subjects.0 1 2 3 4 5 6 7 8 9 10

13. Practical skills are assessed wherever such assessment is required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10

14. Overall students' performance is analysed at least once a year. Records of assessments are documented and available.0 1 2 3 4 5 6 7 8 9 10

15. External examiners are involved in the assessment process.0 1 2 3 4 5 6 7 8 9 10

16. Students can review and challenge the results of examinations / assessments of their performance if they consider information inaccurate, misleading or inappropriate.0 1 2 3 4 5 6 7 8 9 10

2.4 Student mobility

1. Institution has appointed person(s) responsible for international cooperation.0 1 2 3 4 5 6 7 8 9 10
2. Students' mobility¹⁸ is encouraged, providing all competencies required by the STCW Convention are properly delivered at hosting institution.0 1 2 3 4 5 6 7 8 9 10
3. Records of students involved in mobility programs are available.0 1 2 3 4 5 6 7 8 9 10
4. Details of articulation and/or credit transfer arrangements are available (inter-institutional agreements).0 1 2 3 4 5 6 7 8 9 10

2.5 Graduation

1. Graduation requirements are clearly defined and appropriate.0 1 2 3 4 5 6 7 8 9 10
2. Graduation audit procedure (examination of student's academic record) is defined and in place.0 1 2 3 4 5 6 7 8 9 10
3. Graduation theses are available to the public audience, at least for the limited period.0 1 2 3 4 5 6 7 8 9 10

2.6 Critical thinking

1. The program has scheduled sessions where students learn to solve real-life problems.0 1 2 3 4 5 6 7 8 9 10
2. Teaching resources, materials and methods (e.g. written or oral examination questions, research paper assignments, and problem-based learning cases) are designed to assess students' skills in problem solving, reasoning and communication.0 1 2 3 4 5 6 7 8 9 10

2.7 Student mentoring and advising

1. The mentoring system is in place and documented.0 1 2 3 4 5 6 7 8 9 10
2. List of mentors and assigned students is available.0 1 2 3 4 5 6 7 8 9 10
3. Students have access to academic, career, personal and financial counselling services.0 1 2 3 4 5 6 7 8 9 10
4. There is a formal mechanism by which students experiencing academic difficulties are identified and directed to appropriate counselling and remediation.0 1 2 3 4 5 6 7 8 9 10

¹⁸ Students' mobility is defined as a period of time that students pursue a part of the program at other (hosting) institution; the learning outcomes achieved at other institution are formally agreed and recognized by the home institution.

5. Students are encouraged to access assistance through the Office of Student Affairs (or similar body) in order to solve issues that may interfere with the student's ability to perform optimally.0 1 2 3 4 5 6 7 8 9 10
6. Students' advisors & mentors have no influence on assessment or promotion decisions.0 1 2 3 4 5 6 7 8 9 10

3 Program

3.1 Curriculum development

1. The procedure for reviewing the program, evaluating content areas and amending program (if needed) is prescribed and carried out at least once every two years.0 1 2 3 4 5 6 7 8 9 10
2. The Curriculum Committee (or similar body) has the authority over and responsibility for design, management and evaluation of the program and assessment.0 1 2 3 4 5 6 7 8 9 10
3. Membership of the Curriculum Committee includes academic staff and students, and may include administrative staff, other stakeholders and government representatives. Membership by names is available.0 1 2 3 4 5 6 7 8 9 10
4. The Curriculum Committee meets regularly (not less than once per month). Minutes of the decisions and/or recommendations of the Committee are available.0 1 2 3 4 5 6 7 8 9 10
5. The Curriculum Committee (or similar body) conducts reviews of the program in disciplines or content areas on which students do not perform as expected on internal or external examinations.0 1 2 3 4 5 6 7 8 9 10
6. Student feedback is used by the Curriculum Committee in program improvement procedures.0 1 2 3 4 5 6 7 8 9 10
7. The objectives, content and teaching methods of all courses of the program are reviewed systematically.0 1 2 3 4 5 6 7 8 9 10
8. Records of amendments to the program are available.0 1 2 3 4 5 6 7 8 9 10
9. The implementation timeline for program amendments is feasible.0 1 2 3 4 5 6 7 8 9 10

3.2 Program objectives

1. Program goals are clearly identified and related to STCW competencies.0 1 2 3 4 5 6 7 8 9 10
2. Learning outcomes and objectives for each subject are clearly identified and framed in competency-based terms that state what students are expected to know and be able to do.0 1 2 3 4 5 6 7 8 9 10
3. The objectives of the program are explained and published at the institution's web site.0 1 2 3 4 5 6 7 8 9 10

3.3 Program structure

1. Structured program description of each course is available.0 1 2 3 4 5 6 7 8 9 10
2. Students' week load is in accordance with national and international educational administration standards.....0 1 2 3 4 5 6 7 8 9 10
3. Workload assigned to general subjects is at least 20% of total students' workload.¹⁹0 1 2 3 4 5 6 7 8 9 10
4. There are electives available (voluntary and mandatory, as required) in the program.0 1 2 3 4 5 6 7 8 9 10

3.4 Program conformity

1. Course contents are in line with STCW Convention, as amended.0 1 2 3 4 5 6 7 8 9 10
2. Associated level of responsibility (management, operational, support, as defined in the STCW Convention) is clearly stated for each course.0 1 2 3 4 5 6 7 8 9 10
3. Program is approved by the national maritime administration.0 1 2 3 4 5 6 7 8 9 10
4. Program is approved by the national education authorities or accreditation board (if required by national laws).0 1 2 3 4 5 6 7 8 9 10
5. Approval and accreditation certificates of the program are available.0 1 2 3 4 5 6 7 8 9 10

3.5 Program consistency

1. Ratio between front-ended lectures and practical training is appropriate for target skills, as required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10
2. The program study load and learning outcomes are measureable and well balanced.0 1 2 3 4 5 6 7 8 9 10
3. The students' achievements are documented, including performance measures of knowledge, skills and competencies at appropriate stages of each course.0 1 2 3 4 5 6 7 8 9 10
4. Key competencies are clearly defined for each subject, including competencies required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10
5. Underperforming students are provided with additional instructions
6. Academic calendar for the next academic period is available and published (printed and online).0 1 2 3 4 5 6 7 8 9 10
7. Academic calendar takes into account on-board time.0 1 2 3 4 5 6 7 8 9 10

¹⁹ The requirement is applicable only to institutions granting BSc degree.

- 8. Guidance on sequencing, pre-requisites and nominal hours of teaching are present and available.0 1 2 3 4 5 6 7 8 9 10
- 9. Person(s) responsible for day-to-day course coordination is/are clearly identified.0 1 2 3 4 5 6 7 8 9 10
- 10. Knowledge, skills and competencies are up-to-date with requirements of the STCW Convention and recent amendments of the most important maritime conventions.0 1 2 3 4 5 6 7 8 9 10
- 11. Students performing significantly above the average are formally praised.0 1 2 3 4 5 6 7 8 9 10

3.6 Textbooks and reference materials

- 1. Textbooks and reference materials are appropriate, up-to date and available, either printed or in electronic form.0 1 2 3 4 5 6 7 8 9 10
- 2. Most important textbooks are provided as e-books.0 1 2 3 4 5 6 7 8 9 10
- 3. Textbooks and reference materials cover all subjects required by the STCW Convention, as amended.0 1 2 3 4 5 6 7 8 9 10
- 4. The STCW Convention and relevant IMO Model courses are available.0 1 2 3 4 5 6 7 8 9 10

3.7 Communication skills

- 1. Students are required to demonstrate formal (academic) communication skills.0 1 2 3 4 5 6 7 8 9 10
- 2. Part of the program is delivered in English (apart from English language lessons).0 1 2 3 4 5 6 7 8 9 10
- 3. Students are required to demonstrate their ability to comment professional subjects in English.0 1 2 3 4 5 6 7 8 9 10
- 4. Students are able to speak English and meet at least Level B2 (CEFR for Languages)0 1 2 3 4 5 6 7 8 9 10

3.8 Understanding of global, economic, cultural and societal issues

- 1. Program includes instructions on global economy.0 1 2 3 4 5 6 7 8 9 10
- 2. Program includes subjects dealing with shipping and related industries (beside those prescribed in STCW Convention).0 1 2 3 4 5 6 7 8 9 10
- 3. Program includes instruction on cultural awareness, intercultural communication and understanding.0 1 2 3 4 5 6 7 8 9 10
- 4. Program includes instruction on different social skills and art.0 1 2 3 4 5 6 7 8 9 10

3.9 Teamwork skills

1. Teamwork skills (knowledge and ability to apply appropriate decision-making techniques and manage teams) are part of regular training.0 1 2 3 4 5 6 7 8 9 10
2. Guidance on resource management is delivered.0 1 2 3 4 5 6 7 8 9 10

4 Education process

4.1 Delivery

1. Staff competencies are identified and satisfied.0 1 2 3 4 5 6 7 8 9 10
2. Monitoring of students' participation in all courses that contain practical skills is carried out. Appropriate evidence is available.....0 1 2 3 4 5 6 7 8 9 10
3. The academic staff workload is manageable and balanced and provides sufficient time for other duties.0 1 2 3 4 5 6 7 8 9 10
4. Accurate record is kept of all activities related to the education process.0 1 2 3 4 5 6 7 8 9 10
5. Use of resources and facilities is according to the plan and provides sufficient spare time for unforeseen activities and tutoring.....0 1 2 3 4 5 6 7 8 9 10
6. Student records (physical files or electronic records) are stored securely, kept confidential and available only to those members of the academic staff and administration who actually need to know.0 1 2 3 4 5 6 7 8 9 10

4.2 Use of modern teaching modes

1. Details and justification for used delivery modes are available.0 1 2 3 4 5 6 7 8 9 10
2. Appropriate range of dedicated video resources is available.0 1 2 3 4 5 6 7 8 9 10
3. Dedicated e-learning and CBT support is provided and available.0 1 2 3 4 5 6 7 8 9 10
4. Hand-outs are used in most lectures involving numerical exercises.0 1 2 3 4 5 6 7 8 9 10
5. Academic staff is encouraged to improve teaching modes.0 1 2 3 4 5 6 7 8 9 10
6. Academic staff is formally praised for effective use of modern teaching modes.0 1 2 3 4 5 6 7 8 9 10
7. Workshops on new teaching modes and/or to enhance academic staff skills in the assessment of student knowledge, understanding and skills are offered on at least a yearly basis.0 1 2 3 4 5 6 7 8 9 10

8. Academic staff are encouraged to attend IMO or other courses for professional promotion purposes and for improving their academic performance0 1 2 3 4 5 6 7 8 9 10

4.3 Training ship

1. Seamanship training is provided on a training ship.0 1 2 3 4 5 6 7 8 9 10
2. The training ship provides appropriate accommodation for assumed number of students and staff on board.0 1 2 3 4 5 6 7 8 9 10
3. The training ship is equipped as required by the SOLAS Convention.0 1 2 3 4 5 6 7 8 9 10
4. Yearly sailing time is sufficient for students to acquire necessary on-board experience.0 1 2 3 4 5 6 7 8 9 10
5. All students are required to complete watch-keeping training.0 1 2 3 4 5 6 7 8 9 10
6. All students are subject to on-board assessment of competency.0 1 2 3 4 5 6 7 8 9 10
7. Additional seamanship training is provided using mock-up facilities.0 1 2 3 4 5 6 7 8 9 10

5 Academic staff and support personnel

5.1 Familiarization

1. The objectives of the educational program are known by academic staff, supporting staff and others who assume any responsibility for student education.0 1 2 3 4 5 6 7 8 9 10
2. Visiting staff are properly guided before delivering. A documented procedure describing visiting lecturers' appointment and performance supervision is available.0 1 2 3 4 5 6 7 8 9 10

5.2 Tasks

1. Academic staff freely selects teaching and assessment methods.0 1 2 3 4 5 6 7 8 9 10
2. Academic staff participates in on-going review and revision of the program.0 1 2 3 4 5 6 7 8 9 10
3. Academic staff participates in the evaluation of teaching (peer evaluation).0 1 2 3 4 5 6 7 8 9 10
4. The individuals responsible for management and coordinating activities are provided with sufficient time assigned to these duties.0 1 2 3 4 5 6 7 8 9 10

- 5. Data on annual staff workload²⁰ is available.0 1 2 3 4 5 6 7 8 9 10
- 6. Staff portfolio²¹ is available.0 1 2 3 4 5 6 7 8 9 10

5.3 Size

- 1. Ratio between academic staff and students is less than 1:20.²²0 1 2 3 4 5 6 7 8 9 10
- 2. Support personnel are appropriate in number and qualifications.0 1 2 3 4 5 6 7 8 9 10

5.4 Experience

- 1. Staff delivering subjects or training leading to the Certificates of Competency or Certificates of Proficiency are legitimate holders of the respective certificate(s).0 1 2 3 4 5 6 7 8 9 10
- 2. Staff delivering subjects leading to the Certificates of Competency is properly educated in teaching techniques and modes of delivery.0 1 2 3 4 5 6 7 8 9 10
- 3. Academic staff speaks fluent English.0 1 2 3 4 5 6 7 8 9 10
- 4. Academic staff is encouraged to embark on refresh voyages on merchant ships.0 1 2 3 4 5 6 7 8 9 10
- 5. Academic staff is encouraged to participate in collaborative projects with industry or to act as external experts.0 1 2 3 4 5 6 7 8 9 10
- 6. Academic staff is encouraged to assume voluntary duties in professional associations.0 1 2 3 4 5 6 7 8 9 10
- 7. Supporting staff are encouraged to participate in professional development training programs.0 1 2 3 4 5 6 7 8 9 10

5.5 Promotion

- 1. Personnel policies (i.e. policies regarding appointments, renewals of appointment, promotions, and dismissals) are disseminated to academic staff.0 1 2 3 4 5 6 7 8 9 10
- 2. Personnel policies and procedures are documented and known by the academic staff.0 1 2 3 4 5 6 7 8 9 10

²⁰ Staff workload is defined as a sum of all measurable assignments in teaching (in hours) allocated to a particular staff member during academic year.

²¹ Staff portfolio is defined as a list (file) of all appointments, intramural assignments, activities and academic and other achievements of each staff member.

²² Full-time equivalent for academic staff (professors) and students is assumed.

- 3. Academic staff regularly receives feedback on their academic performance and progress toward promotion.0 1 2 3 4 5 6 7 8 9 10
- 4. Personnel policies are followed by department heads, academic dean and dean.0 1 2 3 4 5 6 7 8 9 10
- 5. Requirements for appointment are objective and based on demonstrated achievements appropriate to the academic rank.0 1 2 3 4 5 6 7 8 9 10
- 6. Application of personnel policies across departments is equal or at least close enough.0 1 2 3 4 5 6 7 8 9 10

5.6 Selection

- 1. Personnel policies take into account the required on-board experience.0 1 2 3 4 5 6 7 8 9 10
- 2. Personnel policies take into account academic achievements.0 1 2 3 4 5 6 7 8 9 10
- 3. Personnel policies prefer minimum on-board experience over academic achievements.0 1 2 3 4 5 6 7 8 9 10
- 4. Academic staff members receive written information about their terms and conditions of employment, benefits and compensation.0 1 2 3 4 5 6 7 8 9 10
- 5. Academic staff members are informed/updated on their responsibilities in teaching, research (if appropriate) and related activities.0 1 2 3 4 5 6 7 8 9 10

5.7 Professional development

- 1. Student feedback on all courses is systematically collected and kept for at least one academic year.0 1 2 3 4 5 6 7 8 9 10
- 2. Data collected to assess individual teaching efforts are communicated to the staff member in a timely and supportive manner to allow personal as well as program improvement.0 1 2 3 4 5 6 7 8 9 10
- 3. Underperforming teaching (criteria) is clearly identified.0 1 2 3 4 5 6 7 8 9 10
- 4. Underperforming staff is informed and requested to respond accordingly.0 1 2 3 4 5 6 7 8 9 10

5.8 Scholar activities

- 1. Research activities are highly welcomed, supported and encouraged.0 1 2 3 4 5 6 7 8 9 10
- 2. There are mentoring programs supporting junior academic staff members in their research activities.0 1 2 3 4 5 6 7 8 9 10
- 3. There is a formal requirement (policy of institutional expectations or similar document) regarding measurable research productivity.0 1 2 3 4 5 6 7 8 9 10
- 4. Measurable research activities are formally required for promotion or for appointment as full-time staff members.0 1 2 3 4 5 6 7 8 9 10

5.9 Interactions with students

1. Academic staff members are required to allocate specified amount of time for individual tutoring.0 1 2 3 4 5 6 7 8 9 10
2. Time allocated for individual tutoring is published (electronically or by other means) at least before commencement of academic term.0 1 2 3 4 5 6 7 8 9 10
3. Academic staff is encouraged to participate in students' non-curricular and voluntary activities (sport, art, dance, etc.).0 1 2 3 4 5 6 7 8 9 10

6 Professional training and internships

6.1 Certification

1. Students obtain certificates (CoC or CoP) as a part of regular education process.0 1 2 3 4 5 6 7 8 9 10
2. Register of all certificates issued to students is available.0 1 2 3 4 5 6 7 8 9 10

6.2 On-board training²³

1. Institution organizes on-board training as required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10
2. Institution monitors professional development during on-board training.0 1 2 3 4 5 6 7 8 9 10
3. Institution receives feedback on on-board training effectiveness.0 1 2 3 4 5 6 7 8 9 10
4. Institution has defined follow-up procedures in case of inadequate or insufficient on-board training.0 1 2 3 4 5 6 7 8 9 10

7 Facilities and resources

7.1 Classrooms

1. Classrooms and other teaching facilities are adequate and appropriate for the methods of instruction used in the educational program.....0 1 2 3 4 5 6 7 8 9 10
2. The number of workplaces is at least equal to number of students attending courses in one turn.0 1 2 3 4 5 6 7 8 9 10
3. There are appropriate and sufficient areas for individual study.0 1 2 3 4 5 6 7 8 9 10

²³ On-board training excludes short periods on board training or other ships (less than two weeks) not recognized by the national maritime authorities.

- 4. There are adequate areas for large group presentations/lectures.0 1 2 3 4 5 6 7 8 9 10
- 5. All classrooms are equipped with standard equipment (tables and seats, blackboards, whiteboards, projectors, speakers, access to the internet, etc.).0 1 2 3 4 5 6 7 8 9 10
- 6. All classrooms have windows providing proper daylight and proper ventilation.0 1 2 3 4 5 6 7 8 9 10
- 7. All classrooms are air-conditioned (properly heated and/or cooled, as appropriate).0 1 2 3 4 5 6 7 8 9 10

7.2 Training facilities

- 1. Swimming pool (or similar arrangements) is available and appropriate.0 1 2 3 4 5 6 7 8 9 10
- 2. All students are required to prove their life-saving competencies as required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10
- 3. Lifeboat training facility is available and appropriate.0 1 2 3 4 5 6 7 8 9 10
- 4. All students are required to prove the ability to manage life-saving craft as required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10
- 5. Firefighting training facility is available and appropriate.0 1 2 3 4 5 6 7 8 9 10
- 6. All students are required to prove the ability to perform fire-fighting operations as required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10
- 7. Workshops for practical training are appropriately equipped, spacious and sufficient for the number of students and scope of training required by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10
- 8. Specialized laboratories (e.g. for electronic or chemical testing and experimenting) are available and appropriate.0 1 2 3 4 5 6 7 8 9 10

7.3 Simulators

- 1. Simulators (Deck/Engine/Cargo) are available as required by the STVW Convention.0 1 2 3 4 5 6 7 8 9 10
- 2. Simulators capabilities conform to general and additional performance standards for simulators used in training and are appropriate for the task.0 1 2 3 4 5 6 7 8 9 10
- 3. Simulators used in training leading to Certificates of Competency are approved and conform to the STCW, SOLAS and MARPOL requirements (as appropriate).0 1 2 3 4 5 6 7 8 9 10
- 4. Student manuals and guidelines for all installed simulators are available.0 1 2 3 4 5 6 7 8 9 10
- 5. Student exercises are prepared.0 1 2 3 4 5 6 7 8 9 10
- 6. Instructor manuals and guidelines for installed simulators are available.0 1 2 3 4 5 6 7 8 9 10

- 7. Simulating capacities are sufficient for planned number of students and time required.0 1 2 3 4 5 6 7 8 9 10
- 8. Instructors have received appropriate guidance in instructional techniques involving the use of simulators.0 1 2 3 4 5 6 7 8 9 10
- 9. Instructors have gained practical operational experience on the particular type of simulator being used.0 1 2 3 4 5 6 7 8 9 10

7.4 Institutional support and resources

- 1. There is sufficient office space to accommodate the current and anticipated size of the academic, administrative and support staff.0 1 2 3 4 5 6 7 8 9 10
- 2. All facilities and work areas are clean, sound, and well maintained.0 1 2 3 4 5 6 7 8 9 10
- 3. Heating, ventilation, air conditioning, plumbing, and electrical systems are regularly inspected and maintained.0 1 2 3 4 5 6 7 8 9 10
- 4. Ships, boats, and operational shipboard equipment is inspected and certified by recognized organization attesting the conformance with relevant maritime conventions.0 1 2 3 4 5 6 7 8 9 10
- 5. The facilities are regularly upgraded.0 1 2 3 4 5 6 7 8 9 10
- 6. There are adequate security systems at each site.0 1 2 3 4 5 6 7 8 9 10
- 7. Student records are stored and/or backed-up in a location that is protected from natural or other emergencies.0 1 2 3 4 5 6 7 8 9 10

7.5 Library

- 1. Students staff, and others associated with the institution have physical or electronic access to the current and prior volumes of relevant periodicals, instructional materials and other information resources required to support the institution's missions.0 1 2 3 4 5 6 7 8 9 10
- 2. Books, journals and databases, either physical or electronic, are sufficient and adequate to meet the requirements of the program and other institution's missions.0 1 2 3 4 5 6 7 8 9 10
- 3. Library staff includes an adequate number of individuals with appropriate professional training and skills necessary to meet the needs of the students, staff and others dependent on their services.0 1 2 3 4 5 6 7 8 9 10
- 4. Library staff collaborates effectively to improve student and academic staff access to library resources.0 1 2 3 4 5 6 7 8 9 10
- 5. The library's databases and bibliographic search, computer, and audio-visual capabilities meet the needs of the program.0 1 2 3 4 5 6 7 8 9 10
- 6. Total user seating is sufficient to meet the needs of students, staff and others within the institution.0 1 2 3 4 5 6 7 8 9 10
- 7. Study and small-group conference spaces within the library are sufficient to meet the needs of on-going activities requiring access to library resources.0 1 2 3 4 5 6 7 8 9 10

8. The number of computers in the library is sufficient to meet the needs of the students.0 1 2 3 4 5 6 7 8 9 10

7.6 Student support facilities

1. Institution provides housing and food for students.0 1 2 3 4 5 6 7 8 9 10

2. Institution provides support to underprivileged students.0 1 2 3 4 5 6 7 8 9 10

3. There is a system of personal counselling aiming to protect students' well-being.0 1 2 3 4 5 6 7 8 9 10

4. The personal counselling system is accessible to all students, and ensures confidentiality.0 1 2 3 4 5 6 7 8 9 10

5. Students are informed about where and how to access health services at all locations where education and training occurs.0 1 2 3 4 5 6 7 8 9 10

6. Students are informed of the cost (if any) of these health services.0 1 2 3 4 5 6 7 8 9 10

7. There is a policy that permits students to be excused from classes to obtain needed care.0 1 2 3 4 5 6 7 8 9 10

8. The institution has appropriate sport facilities.0 1 2 3 4 5 6 7 8 9 10

9. Sport activities are a part of regular education process.0 1 2 3 4 5 6 7 8 9 10

7.7 Information technology

1. The number of computer classrooms and the number of computers or workstations in these classrooms are sufficient to meet the needs of the program.0 1 2 3 4 5 6 7 8 9 10

2. Students have access to the Internet (wired or wireless) in classrooms, study areas, library and at other locations.0 1 2 3 4 5 6 7 8 9 10

3. There are a sufficient number of electrical outlets in educational spaces to permit unrestricted computer use.0 1 2 3 4 5 6 7 8 9 10

4. Students and staff have network access to educational resources (databases, hand-outs, video resources, library resources).0 1 2 3 4 5 6 7 8 9 10

5. Appropriate software is used to manage and monitor education and administrative processes.0 1 2 3 4 5 6 7 8 9 10

6. There is an Information Technology Services Unit (IT) that supports the educational and other missions of the institution.0 1 2 3 4 5 6 7 8 9 10

7. The information technology (IT) staff includes adequate number of qualified and educated professionals necessary to meet the needs of the students, staff and others dependent on their services.0 1 2 3 4 5 6 7 8 9 10

8. Appropriate hardware and software is available and accessible to academic staff for in-house development of educational resources.0 1 2 3 4 5 6 7 8 9 10

- 9. Academic staff members are supported in developing or maintaining web-based teaching materials and the use of computer-assisted learning and audio-visual aids.0 1 2 3 4 5 6 7 8 9 10

7.8 Personal safety

- 1. Occupational health, safety policy and related requirements are defined, formally approved and published.0 1 2 3 4 5 6 7 8 9 10
- 2. Safety warnings are posted in all spaces commonly visited by students or staff.0 1 2 3 4 5 6 7 8 9 10
- 3. Emergency procedures are developed, documented and well-known to students and staff.....0 1 2 3 4 5 6 7 8 9 10
- 4. Evacuation routes are unobstructed.0 1 2 3 4 5 6 7 8 9 10
- 5. Evacuation trainings are carried out at least once a year.0 1 2 3 4 5 6 7 8 9 10
- 6. Personnel responsible to provide medical assistance in case of medical emergency are nominated and properly trained.0 1 2 3 4 5 6 7 8 9 10
- 7. Means for elementary first aid are available at all training facilities.0 1 2 3 4 5 6 7 8 9 10
- 8. Students are appropriately supervised during practical training to ensure student safety at all times. Arrangements are documented.0 1 2 3 4 5 6 7 8 9 10
- 9. Secure rooms and lockers, and/or other secure space for storing personal belongings, are sufficient to meet the needs of the students.0 1 2 3 4 5 6 7 8 9 10
- 10. There are plans for natural and other emergencies likely to occur in the area where the program is carried out, including mandatory training for students and staff.0 1 2 3 4 5 6 7 8 9 10

8 Program objectives and stakeholders involvement

8.1 Stakeholders²⁴

- 1. Stakeholders are clearly identified.0 1 2 3 4 5 6 7 8 9 10
- 2. Stakeholders support institution’s mission, vision and goals.0 1 2 3 4 5 6 7 8 9 10
- 3. Stakeholders’ involvement is formalized.0 1 2 3 4 5 6 7 8 9 10

²⁴ Stakeholders normally include individuals outside the academic staff whose partnership is essential, e.g., recognized community members, representatives of professional associations, shipping industry, other universities or institutions, alumni, and the education and maritime authorities.

4. Stakeholders' representatives in formal bodies are selected in fair and public process.0 1 2 3 4 5 6 7 8 9 10

8.2 Stakeholders involvement

1. Stakeholders' representatives are regularly contacted and correspondence is available.0 1 2 3 4 5 6 7 8 9 10

2. Key stakeholders participate in shaping the vision, mission, goals, management and identification of measurable outcomes.0 1 2 3 4 5 6 7 8 9 10

3. Stakeholders from the industry participate in the education process (as guest lecturers, donators or providing other services used in education or training).0 1 2 3 4 5 6 7 8 9 10

4. Institution keeps records of alumni and their professional promotion and development.0 1 2 3 4 5 6 7 8 9 10

5. Institution formally supports alumni.0 1 2 3 4 5 6 7 8 9 10

6. Institution engages outstanding alumni in the design and conduct of specialised courses.....0 1 2 3 4 5 6 7 8 9 10

7. Institution regularly informs alumni on recent developments (institution journal, magazine, dedicated web-site or similar).0 1 2 3 4 5 6 7 8 9 10

8. Institution maintains formal links with professional associations.0 1 2 3 4 5 6 7 8 9 10

9. Professional associations are involved in program development.0 1 2 3 4 5 6 7 8 9 10

8.3 Program upgrade strategy

1. Program is amended following stakeholder's advice.0 1 2 3 4 5 6 7 8 9 10

2. Training process has been adjusted according to stakeholder's proposals.0 1 2 3 4 5 6 7 8 9 10

3. Alumni participate in program development.0 1 2 3 4 5 6 7 8 9 10

8.4 Response to stakeholder feedback

1. Institution appointed person(s) responsible to coordinate activities with key stakeholders.0 1 2 3 4 5 6 7 8 9 10

2. Institution appointed person(s) responsible to maintain links with shipping companies.0 1 2 3 4 5 6 7 8 9 10

3. Institution formally responds to stakeholders' initiatives.0 1 2 3 4 5 6 7 8 9 10

8.5 Student employment

1. Students' employment record is maintained (at least for last 3 years).0 1 2 3 4 5 6 7 8 9 10
2. Institution engages person responsible for employment counselling.0 1 2 3 4 5 6 7 8 9 10
3. Institution maintains and support contacts between students and employers.0 1 2 3 4 5 6 7 8 9 10

9 Continuing education

9.1 Students further education

1. Institution offers Master Courses (MSc).0 1 2 3 4 5 6 7 8 9 10
2. Institution offers Doctoral Courses (Ph.D.).0 1 2 3 4 5 6 7 8 9 10
3. Institution offers courses on highly specialized subjects dealing with maritime issues not covered by the STCW Convention.0 1 2 3 4 5 6 7 8 9 10

9.2 Further professional training

1. Institution provides Continuous Professional Development courses (or similar) to former students and seafarers, appropriate for those looking for employment in offshore industry or on the shore.0 1 2 3 4 5 6 7 8 9 10
2. Institution offers short courses (leading to CoP) to seafarers.0 1 2 3 4 5 6 7 8 9 10
3. Institution delivers custom-designed courses for the shipping industry.0 1 2 3 4 5 6 7 8 9 10
4. Institution delivers custom-designed courses for the maritime administration.0 1 2 3 4 5 6 7 8 9 10
5. Institution significantly participates in collaborative research projects with shipping industry.0 1 2 3 4 5 6 7 8 9 10

8.2 MODEL SITE-VISIT REPORT

Report on the site visit to XXXXXX MARITIME FACULTY

An IAMU Peer-Assisted Evaluation Scheme - "IAMU PAES" project

Institution visited: **Maritime Faculty (XXXXXX),**

Dates of visit: **DD-DD MM YYYY**

Peers: **Damir Zec (DZ)**, Professor, University of Rijeka, FMS

Vlado Frančić (VF), Assistant Professor, University of Rijeka, FMS

Boris Butman (BB), Professor Emeritus, US Merchant Marine Academy (ret.),
New York, USA

Advisors for visit assessment:

Boris Pritchard (BP), Professor, University of Rijeka, Faculty of Maritime Studies,
Croatia

Self-assessment host institution team:

XXXXXXXX, Professor, Dean of XXXXXX

XXXXXXXX, Associated Professor, QMS Manager of XXXXXX

XXXXXXXX, Professor, XXXXXX of XXXXXX

1. GENERAL OVERVIEW

The Peer-Assisted Evaluation Scheme (PAES) project is a project supported by the IAMU; it aims to develop a methodology that will enable IAMU member universities to improve the curricula and make STCW-related education more effective.

The visit has been carried out as a part of the evaluation process of the Peer-Assisted Evaluation Scheme project.

In order to validate the Scheme and underlying methodology, the project assumes validating visits to the IAMU member institutions at two different stages of the project development. During the project development, it was decided that at least 2 different institutions should be visited in order to validate peer-assisted self-assessment scheme. In order to ensure plausible conclusions selected institutions should be characterized by different background, tradition, culture and academic programme. It was anticipated that these preconditions could be satisfied if institutions on different continents, but bearing comparable significance to local maritime community and tradition should be selected. Consequently, XXXXXX and the XXXXXX were invited to accept validating visit. The visit proposals were accepted by both institutions.

In order to maintain expenses within approved budget it was decided that first institution to be visited is XXXXXX and it was agreed that visit should take place in first half of the June 2014, immediately after spring semester closing in order to minimise negative impact on the education process.

The primary goal of the peer's visit was

- to evaluate and test the PAES Self-evaluation Form (previously developed by the team as a backbone of the core process), and
- to collect data that may help peers to estimate degree of compliance with assumed educational standard imprinted into the Self-evaluation Form.

2. THE VISIT'S AGENDA

The preliminary review and assessment of the prepared Self-evaluation Form, as a kind of pre-test, were done by the host institution staff during the period 7-16 June 2014. In that respect, the Self-evaluation Form was sent to the staff one week before the planned visit.

The program schedule of visit was proposed by the host institution representatives and it followed the main topics enlisted in the Self-evaluation Form. The schedule was adopted by the peers with no changes.

It included meetings and interviews with the heads of the institution and departments, academic staff responsible for different subjects enlisted in Self-evaluation Form and with students. It also included evaluation of the documentary evidence presented and visits to the institution facilities and resources.

The following program schedule was proposed by the host institution, accepted by the peers and followed with minimal delays.

PAES Program Schedule

Date	Time	Activity	Participants from host institution
16 th June 2014 Monday	09:00-09:25	Kick-off meeting	Prof XXXXXX Assoc. Prof XXXXXX
	09:30-09:55	Short briefing about host institution	Prof XXXXXX Assoc. Prof XXXXXX
	10:00-11:55	Evaluation of Quality Management System	Assoc. Prof XXXXXX Branch Manager XXXXXX
	12:00-12:55	Lunchtime	-
	13:00-13:55	Evaluation of host institution Departments	Prof XXXXXX Assoc. Prof XXXXXX
	14:00-14:45	Evaluation of educational activities	Prof XXXXXX
	14.50/15.25	Evaluation of administrative activities and infrastructures	Prof XXXXXX
	15.30/15.55	Evaluation of Graduate Programs (MSc, PhD, MBA)	Prof XXXXXX Assoc. Prof XXXXXX
	16.00/17.25	Evaluation of laboratories (Campus Tour)	Prof XXXXXX Assoc. Prof XXXXXX Laboratory directors
	17.30	Completion of studies in the first day.	-
17 th June 2014 Tuesday	09.00/09.20	Interviews with students	Students
	09.20/09.45	Evaluation of Simulator Centres	Prof XXXXXX Assoc. Prof XXXXXX
	09.50/10.25	Evaluation of Continuous Education Centre	Prof XXXXXX Assoc. Prof XXXXXX
	10.30/10.55	Review of gathered data and evidences	-
	11.00/11.55	Analysis with PAES Model	-
	12.00/12.55	Lunchtime	-
	13.00/13.55	Review of results and audit reporting	Prof XXXXXX Assoc. Prof XXXXXX
	14.00/14.25	Final Evaluation and Closing Meeting	Prof XXXXXX Assoc. Prof XXXXXX Volunteer Participants
	14.30	Completion of studies in the second day.	-

3. FINDINGS AND RECOMMENDATIONS

The results of the visit are summarized by the peers. The most important findings were discussed with the institution Administration at the closing meeting.

The following is the discussion of the findings and recommendations as per items of the Self-Evaluation Form.

Findings

The XXXXXX is well-structured and well-organized institution. Management responsibilities are clearly defined. The mission, vision and strategy of the institution are clearly defined and followed. The institution funding is appropriate for the activities carried out. The Quality management system is properly set up and perfectly matches the needs of the institution.

The admission procedure is documented and easily achievable. The ratio of academic staff to student is well balanced. Student's workload is balanced and reasonable. Overall and yearly drop-out rate is very low. Although disciplinary violations are rare, the student involvement in their resolution is insufficient or simply inexistent. Student mobility is low although students would like to participate in mobility programs. No formal mentoring system is available, however, there is Help centre, providing assistance to the students when required. Student union is not recognised by the students.

Program is well structured, clearly presented with properly defined objectives. Program advancement system is in place. No elective subjects are offered in the Diploma program (3 year study leading to CoC). Although the textbooks are incorporated in the program, other resources, such as video or CBT are not included, but used regularly in the education process. General subjects are prevailing in the first year and normally do not exceed 20% of the students total workload. The program does not include humanities or similar non-STCW subjects.

The education process is delivered by a sufficient number of instructors (academic staff) and supporting personnel. The instructors are competent. They use different teaching modes, facilities and resources in accordance with the STCW Convention requirements. The dedicated e-learning and CBT support is provided and is in use considerably. The academic staff is not formally encouraged to improve teaching methods and forms; however, they are well educated in teaching modes and methods. The institution offers different STCW and other special courses to the industry, and academic staff actively participates in teaching. A small training ship is available; it is used for day trips only. The students are getting the on-board training during sea-phases (2 months after 1st year and 10 months after 2nd year).

The academic staff is properly qualified and well familiarised with the program. The number of academic staff and supporting personnel is adequate and appropriate for the number of students. Ratio between academic staff and students is less than 1:30. The major part of academic staff activities is focused on lessons delivery. Involvement of visiting academic staff is minimal. There is a clear policy regulating academic promotion and the faculty is well informed on their academic performance. There are no objective criteria defining underperforming teaching.

Research activities are carried out in collaboration with the industry although there are no formal requirements or clearly defined policy. Interactions of academic staff with students are left to the individual and regulated through personal contacts.

The certification process is regulated and controlled by the national maritime administration. On-board training completely satisfies the STCW requirements.

The classrooms, other teaching facilities and resources at the institution are appropriate for the size and activities provided by the institution. The equipment (including the simulators) represents state-of-the-art devices. They fully comply with respective STCW requirements and in several areas go far beyond

those requirements. They are regularly maintained and upgraded. The training facilities and workshops are available and appropriate. Availability of information support for students and academic staff is appropriate. The institution does not provide housing for students or support for underprivileged students. The athletic facilities are satisfactory; however, students are not required to participate in sport activities during education.

The stakeholder involvement is present but not always formally recognised. There are weak connections with the Alumni. The stakeholder's involvement in program upgrading is limited and training process generally does not follow the stakeholders' proposal. Student employment is encouraged and the records of employment are maintained.

The institution offers Continuous Development Courses, short courses leading to CoPs and custom-designed courses mainly for offshore industry. The institution participates in collaborative research projects for maritime industry. Further education is limited to MSc programs, although there are plans for the PhD program implementation.

Recommendations

Recommendations are provided based on the interviews with the staff and students, evaluation of the results of the PAES Self-evaluation Form and peers experience. The recommendations collected could be summarized as follows:

- to consider more consistent continuation of the BSc program;
- to consider sequencing between basic (Diploma program) and BSc program;
- to consider alternative modes of textbooks distribution (e.g. as e-publications) in order to make currently very expensive books more affordable to students;
- to consider implementation of additional measures to help underperforming students;
- to consider more formal research policy (especially promoting students participation in research);
- to develop more responsive model of course improvement and course upgrading activities,
- to consider implementation of the mentoring system;
- to initiate continuous analysis of the program contents in order to identify recurring and/or unnecessary topics in order to free-up student's time (e.g. several topics in naval engineering may be considered in engineering program);
- to consider introducing electives to broaden understanding of subjects not so closely related to the maritime industries (e.g. global economies or humanities);
- to consider further promotion of Master Programs, for example through scheduled in-class visits by experienced teachers;
- to consider development of the students on-board performance monitoring modes during sea-phases, particularly during 2nd phase;
- to consider additional space for after class studying, for instance in the library;
- to consider more formal stakeholder's and Alumni involvement in educational process, mostly in program upgrading, in topics providing an enhanced knowledge and understanding beyond the STCW requirements;
- to consider involvement of senior students in recruitment process;
- to consider possible student mobility programs (within the University and beyond).

4. CONCLUSION

The site visit was undertaken with intent to validate the amended version of the PAES Self-evaluation Form and associated procedure. It is designed to revalidate the findings and results of the first site visit and to improve the overall process. It gave the sense of the time required, workload generated as well as possible drawbacks not previously identified. In addition, it gave the host institution an opportunity to comment and suggest the process, the most important being those dealing with education process improvements and position of the institution as a whole.

The most important findings made during site visit and highly valuable for the further PAES project development are as follows:

- The information provided in advance from the well-designed institution web page could considerably reduce time spent during the on-site visit. Peers should collect all available information before the completed PAES Self-evaluation Forms are received or analysed.
- Analysis of the available data from all resources should help to identify “*points of interest*” for the interviews during the site visit.
- Although the number of questions was reduced, combined and adjusted following the first site visit findings, there is more room for squeezing the PAES Self-evaluation Form. Additional explanations and brief statements for each evaluated item should be added.
- More elaborated explanation of the PAES procedure has to be prepared and made available to the host institution. The willingness of the host institution to participate and to improve its processes is of the utmost importance
- An additional column for explanations and remarks has to be made available to evaluators completing the PAES Self-evaluation Form. It could give very important insights to peers

This site visit fully satisfied the goals. It shows that even well organised and developed institutions may benefit from such a process. At the same time, the project developers had an opportunity to improve the process and make it more user-friendly for future users.

The project developers once again sincerely express their gratitude to Professors XXXXXX, XXXXXX and XXXXXX and all other staff members and students for their warm welcome, enthusiasm, and willingness to help with the project development.

Drafted by BB, DZ and VF

Prepared in XXXXXX, DD MM YYYY

8.3 REFERENCES

- 1) Harvey L. and Knight P. T., Transforming higher education, Open University Press, 1996
- 2) A Feasibility Study on the Establishment of an IAMU Accreditation Scheme: Phase I and II (ACCREDIMET-II) Theme 3 - Current MET Issues in IAMU Member Institutions, projects supported by the IAMU (Nippon Foundation), 2010/11
- 3) DNV Standards for Certification No. 3.403 Maritime training providers, 2012