10-1-1988

The education and training of senior maritime personnel at World Maritime University

Gunther Zade

Follow this and additional works at: http://commons.wmu.se/wmu_news

Recommended Citation

http://commons.wmu.se/wmu_news/317

This News Article is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.
The Education and Training of Senior Maritime Personnel at World Maritime University

By Günther Zade, Professor and Vice Rector

Introduction
World Maritime University (WMU) was established under the auspices of the International Maritime Organization (IMO) and inaugurated on 04 July 1983. 284 students have graduated from WMU’s two-year postgraduate courses during the first five years and have obtained a Master of Science degree in one of six specializations. The number of students has increased from 68 in the inaugural class to 102 each in the last two annual intakes. With 204 students premises and facilities of WMU at the former Merchant Marine Academy in Malmö, Sweden are now used to their maximum capacity.

Graduates and students come from 97 mainly developing countries. Another 11 countries are represented in the staff so that WMU can claim to be a global institution in which students and staff from 108 countries are involved. Adding countries of visiting professors, which are not contained in the 108, the number of countries would have to be increased to 113.

WMU was created with the main objective to train senior maritime personnel for maritime administrations, maritime training institutions and shipping companies in developing countries who would be capable of assisting in the implementation of IMO Conventions and hereby to the creation of common global maritime safety and pollution prevention standards. Whilst this original objective is still valid and pursued, WMU is now offering courses which satisfy not only the need for the training of such personnel but are more comprehensive and cover a broader range than necessary for the implementation of IMO Conventions. WMU today prepares maritime personnel for positions of high-level responsibility in maritime administrations, maritime safety administrations, maritime training institutions, port organizations, shipping companies and other maritime enterprises. The majority of graduates of WMU have already been promoted shortly after return to their home countries and have been entrusted with senior positions as e.g. heads of divisions or departments in the organizations and institutions mentioned above. Several graduates have reached positions of even higher responsibility as e.g. director of a national maritime safety administration, academic dean of a maritime academy and director general of shipping.

A growing number of graduates becomes visible also outside their countries. They take part in international meetings, above all at IMO. The last IMO Assembly saw 11 graduates participating in their national delegations of whom 3 acted as speakers for their country. One was even elected a Vice President of the Assembly. Recently the first graduate has been appointed representative of his country in the Board of Governors of his former alma mater. The Board consists of eminent personalities from shipping in 45 countries and 14 representatives of organizations which deal with maritime matters. Chairman of the Board is the Chancellor of WMU, H.E. C.P. Srivastava, Secretary-General of IMO.

WMU is the brain-child of the Secretary-General of IMO. It was also he who raised the support and created the prerequisites for the implementation of this ambitious project. WMU could, on the other hand, not have come into being without the support of numerous countries, organizations and personalities. The most important single financial contribution to the founding and continued existence of WMU was made and is being made by the government of Sweden. The hospitality and the generous support by the City of Malmö also play an important role in the establishing and successful operation of WMU as do the recurrent contributions from many other countries and organizations as e.g. the United Nations Development Programme (UNDP) and Norway.

Students
Students enter WMU with the average age of 35. They hold master...
mariner or chief engineer certificates of competency or the academic degree of a Bachelor or another equivalent degree. Most of the students have already gained professional experience in the organizations and institutions, for higher positions in which they are trained at WMU. Students are normally nominated by maritime administrations, maritime safety administrations or maritime academies, by shipping companies, port authorities or other maritime enterprises.

Age, careful selection and nomination are the main reasons for the students’ high motivation to work and to profit as much as possible from their two years of postgraduate studies at WMU. Matching these high expectations, syllabi and teaching style at WMU provide for education of adults who bring with them experience in the field of specialization they are trained in.

Students sacrifice two years of their lives, during which many of them are separated from their families for longer periods, to qualify for national positions of higher responsibility. They see themselves as representatives of their countries. Graduates normally return to their nominating organizations or institutions. It is obvious from these circumstances that students are afraid of the ignominy of failure and make greatest efforts to successfully conclude their studies.

Students may occasionally be better qualified at completion of their studies than their previous superiors. Thus they would have to be prepared for such situation. Studies at WMU are therefore not only aiming at imparting up-to-date knowledge and providing corresponding practical experience but also at maintaining the modesty with which students normally join WMU. In addition, students would have to further develop their skills for successfully operating in an organization or institution from a social point of view. The meeting of this objective is a good prerequisite for a successful re-integration and for a graduate’s knowledge and experience to be put to optimum use after return to his/her home country.

It is in this context a highly educating experience for the students to have two years of close working and social contacts with their colleagues from all over the world who come from the same field of specialization or other sectors of shipping and who may have different educational and cultural backgrounds. Students respect each other and freely extend mutual assistance. There are numerous indications that such co-operation continues after graduation and that the alumni stay in close contact with each other, over national boundaries and those of responsibilities and operations which may rather separate than bind togetherness. There are numerous indications that such co-operation continues after graduation and that the alumni stay in close contact with each other, over national boundaries and those of responsibilities and operations which may rather separate than bind togetherness representatives from administrations, academies and companies. It is the perception of common objectives that unites the alumni despite the variations in interests which they may pursue in their organization or institution.

Courses
WMU offers now the following 7 two-year postgraduate courses:

* General Maritime Administration, GMA
* Ports and Shipping Administration, PSA
* Technical Management of Shipping Companies, TMS
* Maritime Safety Administration (Nautical), MSA(N)
* Maritime Safety Administration (Marine Engineering, MSA(E)
* Maritime Education and Training (Nautical), MET(N)
* Maritime Education and Training (Marine Engineering), MET(E)

The course PSA is for the first time offered under this title for students who will join WMU in 1989. It was run as a specialization within GMA since 1985. The test has been successful so that it was proposed by the faculty of professors, supported by the first academic review of WMU and decided by the Board of Governors to give the course its own identity also officially by a specific name and to separate it from GMA which is offered to maritime administrators for shipping ministries or maritime divisions of transport or communication ministries.

Responsible for each of the 6 courses is a course professor who is assisted by a lecturer. Only for the TMS course 2 professors are responsible. The courses GMA and PSA as well as MSA(N) and MSA(E) are assisted by a programme officer each who provide logistic support for field studies. Under the overall supervision by Rector and Academic Council, the academic programme is co-ordinated by the Vice Rector who acts as Academic Dean. He is also responsible for harmonizing — together with his professor colleagues and the lecturers — basic approaches to and standards between the courses.

All courses have specified entry requirements the meeting of which is supervised by the Admission Board. Candidates for GMA- and PSA-courses are normally accepted if they hold the academic degree of a Bachelor or another equivalent degree. Students for the TMS-course are eligible with an unlimited master mariner certificate and students for MSA(E)- and MET(E)-courses with an unlimited marine engineer certificate of competency. Students for the TMS-course are eligible with either of the latter two qualifications. Qualifications which are considered equivalent are also accepted since only a limited number of countries use the term Bachelor for the first academic degree. As certificates of competency normally bear the same title these qualifications may appear more harmonized than entrance qualifications which are related to academic degrees. This is only true for the basic professional contents of studies. Variations lie in the academic qualification of the students who hold certificates of competency.

Syllabi
It is therefore of considerable importance in the beginning of studies or even before that students are brought on a common level of knowledge both in the overall context of the academic programme and in their course speciality. As the teaching language of WMU is English, the first steps into this direction are the Intensive English Language Programmes which begin, depending on need, for certain students on 01 November, for others on 07 January. The 18-week and the 10-week programmes end in the middle of March when the two-year courses begin. Nearly or even exactly half of the students come from countries where English is not the one of the official languages.

The three resident English language lecturers of WMU are supported by up to 4 supernumeraries during the intensive programmes. Although insufficient language proficiency occasionally contributes to poor examination results in the very beginning of the studies, the language factor is normally eliminated in the second semester. The academic performance of the groups of native speakers and non-native speakers shows an equal distribution in grades obtained after two years of studies.

Similar arrangements as for English are e.g. made for students of the maritime lecturer courses MET(N) and MET(E) in mathematics although the upgrading is not preceding studies but is dealt with within the first year of studies after the students’ mathematics proficiency has been identified in the very beginning.

An upgrading and harmonization of knowledge in maritime affairs and methodological subjects for students of all courses takes place during the common first semester when introductions to utilization of the sea, maritime trade and transport economics, maritime law, naval architecture, management, word processors and computers, library use, the work of IMO and international maritime conventions, maritime safety and marine pollution prevention are given which, depending on specialization, are followed up by the various courses in the second, third and fourth semesters. The common first semester also provides for a communication between the representatives of different sectors in maritime affairs. Moreover, it has a considerable educational value. It helps create mutual recognition and tolerance between students and courses.

The second, third and fourth semesters contain programmes which are mostly course-specific. The programmes consist of lectures and related activities and of field studies. Lectures are given by resident and visiting staff. Field studies are divided in field training or on-the-job training and field trips or excursions. These differ from course to course not only in content but also in duration. WMU receives support for its field study programme from most European countries, from North America and Japan. Tuition or information at field study destinations is given free of charge. WMU normally pays travel, accommodation and living costs for the students with the exception of a few countries which even take over all or part of the student’s local costs.

Generous support is also given by visiting professors who are eminent experts in their field of specialization from all over the world. WMU pays for their travel, provides free accommodation at the stu-
and will become necessary with further changes in the maritime
consolidated. Nevertheless, further improvement is always possible
and courses had occasionally to be amended, the present syllabi are
courses and to a limited extent also the syllabi of the next two classes
at WMU were to meet needs which were not catered for at any
basis of a draft syllabus. There was no model to follow since all
innovation had to implement syllabi for the courses, for which a
review and approved by the Board of Governors reduces fluctuation
tension of the retirement age to 65 as recommended by the academic
...use for testing candidates for professorships before an eventual ap
WMU. At the same time this intermediate position may perhaps be
for testing candidates for professorships before an eventual ap
The academic personnel of WMU will consist on 15 September 1988
of course they are responsible for. They are professionals
who have held positions of high responsibility. On the other hand,
they need to have an appropriate academic qualification to meet also
the requirements in this very important aspect of their work at
WMU. The age of the present professors at WMU is between 46 and
64 with an average of 56-57. They have joined WMU from very senior
positions in the shipping industry and from academic institutions.

The age of the 7 lecturers is between 33 and 43 with an average of
37-38. They differ from the professors mainly in professional experi-
ence but have in general obtained similar academic credentials.
The first academic review of WMU has supported the proposal of
the Academic Council to introduce a rank between professor and lec-
turer so that lecturers could be given some career perspective within
WMU. At the same time this intermediate position may perhaps be
used for testing candidates for professorships before an eventual ap-

Resulting from a retirement age of 60, WMU has had some diffi-
culties in keeping staff for a sufficiently long period. The recent ex-
tension of the retirement age to 65 as recommended by the academic
review and approved by the Board of Governors reduces fluctuation
and contributes to continuity in staff.

Professors and later lecturers of whom most joined a few years af-
fter inauguration had to implement syllabi for the courses, for which a
need was identified in a preparatory phase between 1980 and 1982, on
the basis of a draft syllabus. There was no model to follow since all
courses at WMU were to meet needs which were not catered for at any
other institution. Whilst above all the syllabi for the first class and
courses and to a limited extent also the syllabi of the next two classes
and courses had occasionally to be amended, the present syllabi are
completed. Nevertheless, further improvement is always possible and
will be necessary with further changes in the maritime
industry and environment. A faculty of professors and lecturers
with some members who can look back at years of experience at
WMU and others who are relatively new is well suited to attend to
the continued improvement of syllabi. Similar benefit from ex-
tended service applies to the development of the library and other
learning resources as well as to the Intensive English Language Pro-
grame. WMU has not only been lucky with students but also with
the majority of staff that has been recruited for academic work. The
students' motivation is reflected in that of the staff and vice versa.

Outlook
WMU is still a young and developing institution. The modesty of
the celebration of its 5th anniversary during the last meeting of the Board
of Governors at the end of June this year was an indication of how
well Chancellor, Board of Governors, Rector, Vice Rector, pro-
fessors and other WMU staff are aware of this fact. WMU has still
some way to go to fully meet the ambitious objectives of its governing
body, Chancellor, faculty and staff.

The first academic review of the WMU that was undertaken in early
spring 1988 by a team of maritime experts with global re-
known under the chairmanship of its member Pierre Bauchet, Pro-
fessor of Economics and Law at the University of Paris, former
president of this University, Deputy Chairman of the French Conseil
Supérieur de la Marine Marchande and Director of the Centre Trans-
port et Dévelopement C.N.R.S. concluded that no major changes in
the operation and academic offer of WMU would be necessary now
but that a survey of maritime training needs in countries where stu-
dents of WMU come from should be undertaken in order to be able to
amend the present offer when it may become necessary for meeting
emerging new needs.

The Academic Review Team did however make numerous, mainly
minor recommendations for the further improvement of standards
which when implemented in their totality will enhance the value from
studies at WMU and will at the same time make the study programme
even more demanding for carefully selected students to whom entry
requirements are stringently applied.

With a view on future staff fluctuation WMU would also have to
continue to develop its syllabi in a way that would reduce the depen-
dence of a certain course on a certain professor. This total identifi-
cation of the pioneer professors with their courses was necessary in the
build-up phase. It provided for maximum motivation and has led to
excellent results without affecting the co-ordination between all
courses.

The routines which have by now been established at WMU in the
implementation of the study programmes should allow the WMU
faculty to spend part of their time on research, on attending interna-
tional maritime meetings more frequently than before and on using

SOURCES OF FINANCING

**DIRECT CONTRIBUTIONS TO THE BUDGET**

- Government of Sweden 31%
- Government of Norway 13%
- Government of Finland 3%
- United Nations Development Programme 16%
- Fellowship support from donors 24%

**FELLOWSHIP INCOME**

- Fellowships provided by United Nations Development Programme
- Fellowships provided by sponsoring governments, companies and national organizations 7%
- Interest and miscellaneous income 2%

*Based on announced contributions in 1988*

The current annual running costs for the University are about US $6.5 million.
Haverier på fartygsdieslar, huvudmotorer

Av inspektör Nils Erik Wolff, Assursföreningen

Under de senaste åren har vi på Assursföreningen ägnat en del tid och möda åt att analysera haverier på fartygens huvudmotorer och då speciellt uppdelat på medelvarvsmotorer och långslagiga tvärstycks motorer. Anledningen till detta var, att vi kunde konstatera att kostnaderna för skador på huvudmotorer ökade, både i reella tal och som procent av den totala haverikostnaden.

En analys av kostnaderna för perioden 1981-1986 visade att medelvarvs motorer svarade för ca 70% av skadekostnaden, långslagsmotorerna för ca 15% och turbinanlaggningar för ca 15% av kostnaderna. När vi sedan tittade på antalet anlaggningar av de olika typerna visade det sig att antalet medelvarvs motorer var 25-30% av totala antalet, långslagsmotorerna 65-70% och turbinerna ca 5% av totala antalet. Man kan alltså grovt säga att 1/3 av antalet motorer (medelvarvs motorerna) svarade för drygt 2/3 av kostnaderna för skadorna.

Efter detta konstaterande fann vi det angeläget att försöka analysera skadorna mera i detalj. Vi startade ett samarbete med CTH, som gick ut på att plocka igenom samtliga maskinhaverier under 1986 för att systematisera materialet och se om man kan upptäcka något mönster eller någon speciell trend. Alltihopa naturligtvis med baktanke att det skulle bli möjligt att i framtiden förhindra vissa skador. För CTH:s del låg en del intresse i att skaffa fram intressanta tyffall, som skulle kunna användas i undervisningen.


For 1986 ser statistiken ut enligt nedan

<table>
<thead>
<tr>
<th>TYP AV MASKIN</th>
<th>kostnad i % av totala</th>
<th>Ant maskiner i % av totala</th>
<th>Kostnad per skada SEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medelvarvsmaskiner</td>
<td>78.2</td>
<td>31.1</td>
<td>750000:-</td>
</tr>
<tr>
<td>Långslagsmaskiner</td>
<td>21.8</td>
<td>68.9</td>
<td>350000:-</td>
</tr>
</tbody>
</table>

For 1987 ser statistiken ut enligt nedan

<table>
<thead>
<tr>
<th>TYP AV MASKIN</th>
<th>Kostnad i % av totala</th>
<th>Ant maskiner i % av totala</th>
<th>Kostnad per skada SEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medelvarvsmaskiner</td>
<td>80.2</td>
<td>31.3</td>
<td>1000000:-</td>
</tr>
<tr>
<td>Långslagsmaskiner</td>
<td>19.8</td>
<td>68.7</td>
<td>350000:-</td>
</tr>
</tbody>
</table>

De procentuella kostnaderna för medelvarvsmotorerna har för år 1986 redovisats på två sätt. Siffran innehåller fördelningen när de skador som omfattar flera rubriker (01) har delats upp i grupperningar som innebär ett haven på dessa delar att även vevstakar, vevlager, vevaxlar och vevsläp är en kritisk konstruktion på medelvarvsmotorerna. Ofta innebär ett haveri på dessa delar att även vevaxeln får förnyas. På de långsamt monteringsmotorerna är spolluftsystemet inklusive överladdningsaggregaten en svag punkt men även på medelvarvsmotorerna kommer denna rubrik högt.

The Danish Projekt Skib .... Continued from page 17

Such a system integrate navigation, alarm systems, communication, administration etc. So that all functions can be done from one work station.

A Danish Navy-project has solved a similar problem in newly developed Navy ships. Therefore a group of specialists partly from the Navy were assembled to write a specification for soft- and hardware to such a system. It was emphasized that standard components, standard interfaces should be used and that software should be general (easy adaptable to the ships) and flexible for future expansion.

The system would be based on a EDP network with main stations on the bridge, in the engine room and in the ships office. All interfaces to the system should be of standard type, in order to enable suppliers of various components, to be connected without problem.

After negotiations with interested companies the Danish company Søren T. Lyngso A/S was awarded a contract to develop the specification for the ISC system. It was emphasized that standard components, standard interfaces should be used and that software should be general (easy adaptable to the ships) and flexible for future expansion.

The Ministry of Industry will assist by supporting owners, who wish to increase the confidence of owners, is the Danish International Register. The ISM-code, which may be the actual trigger to the first contract.

Did we achieve our goals? This remains to be seen in some areas. We did design not one but four ships. We did put up solutions to the problems we have found essential. We did not, however, finish until the end of 1987. But we foresee at present that all outstanding problems will be solved, and could be approved within a few months. We have kept expenses within the budget, so that total costs will not exceed 2.5 mio pounds. Will there be built any such vessels? This we will know within the coming six months. There is a lot of interest and many problems will be solved, and could be approved within a few months. We have kept expenses within the budget, so that total costs will not exceed 2.5 mio pounds. Will there be built any such vessels? This we will know within the coming six months.