

Possibilities for Providing of Professional Practices on the Training Vessel Dar Młodzieży

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ABSTRACT: The article presents possibility of performing trainings on board of the Gdynia Maritime Academy's training ships. It has been described main rules of curriculum of practices, also included requirements of the timeline of the practice which were defined in proper law acts as well as applying of those requirements in accomplishment of practices on board of the ships. Paper presents statistics of the numbers of students trained on board of "Dar Młodzieży" from the Gdynia Maritime University and from other Maritime Universities and schools. Based on the presented statistics data it has been analyzed possibility of the extension time of the trainings. Such analysis assay results from curriculum of the Maritime Academy in Gdynia and others maritime schools.

1 INTRODUCTION

1.1 *Marine apprenticeship*

Marine apprenticeship carried out on board the training ships of the Maritime University in Gdynia is necessary and confirmed by years of experience part of the educational process and maritime upbringing as well as acquisition of practical skills for the students.

Expectation of maritime labor market is being an officer of modern fleet, a graduate of the Maritime University - an officer of modern fleet - navigator, engineer or ships electrician. To be perfectly trained specialist, she/he needs, beside theoretical knowledge and training on simulators, undergo a comprehensive vocational practices on the training vessels "Dar Młodzieży", "Horyzont II" and on commercial vessels.

Practice on board ships is an important and integral part of maritime education, as required by

regulations - both international and national as well as by the ship owners, increasing attention therefore is paid to apprenticeship and it attracts more and more people willing to take part in vocational practice.

1.2 *Implementation of the apprenticeship program*

The vocational practice carried out on board "Dar Młodzieży" is based on traditional values, developed over the centuries in the realities of the world of sailing.

Apprenticeship is carried out on the basis of specific vocational practice programs, guidelines taken from the Universities' departments and schools, as well as based on the experience of the crew. An important element to be taken into account in the implementation are requirements for practical training of junior merchant ship officer determined by STCW Convention.

Requirements of the Convention are met by implementation appropriate, aforementioned programs of vocational practice and practice books respectively for the deck department and engine department.

Tough rules of sea service on a classic sailing ship, form interns with the qualities needed in a later service on bridges of modern merchant ships.

Apprenticeship on a training ship is usually the first contact with the sea, which allows to verify the idea of working at sea with its reality.

Vocational practice on the "Dar Młodzieży" allows the interns to explore the principles of "good seamanship", to develop their sailor's awareness, as well as physical and mental resilience.

As mentioned, it is extremely important to implant the principles of the formation and behavior of a future sailor on the basis of the so-called "good seamanship", which Professor Władysław Rymarz described as: "an ordinary way of behaving, reacting and proceeding under certain conditions and circumstances of an experienced, efficient and careful seaman". It is a way of behaviour established by the constant application, commonly known to seamen, it is reasonable, effective and proven in the prevention of accidents at sea. Principles of seamanship formed on the basis of the experience of many generations of sailors have become customs sanctioned by jurisprudence of law chambers and sea courts. Many of them eventually transform into laws of a sea route". (Rymarz, 1985).

"Good seamanship" are the customs and worked out recommendations that have been modified and have been adapted to the current needs and requirements. Over the years, these practices have been formalized and have been gradually implemented to ship regulations or recognized in legislation.

This has been reflected in the International Management Code for the Safe Operation of Ships and for Pollution Prevention - ISM CODE, which development and implementation consisted, among other things, of adoption of the code of behavior and operations sailors developed over the years within the framework of the so-called good seamanship. This is reflected in the form of appropriate procedures recorded in a system of safe ship management adapted for particular vessel.

Therefore "the training must also face the code for safe management of the ship, which should ensure that a crew, which is to cover certain functions on that ship, must pass adequate training related to safety and environmental protection" (Chauvel, 1997).

Apprenticeship on a sailing ship also teaches teamwork and responsibility. Students acquire these skills through joint hoisting the sails, often in difficult hydrometeorological conditions, working at heights / on masts, when the safety of each trainee often depends on companionate teamwork. Forming [education of] responsibility is also an element of practice acquired during the joint exercise of outboard [overboard] works, when a student secures a work of mate overboard from the deck. Distinct

changes can be observed barely after a month of practice in behavior of apprentices, who in such a short time are beginning to be aware of their responsibility for the safety of not only themselves, but also for other crew members.

"An important part of the apprenticeship training is acquisition the principles of behavior of the future officer in accordance with applicable ceremonial [etiquette] in merchant marine. This ceremonial is very specific and includes many elements from the Navy." (Koczorowski E, 1996)

On the "Dar Młodzieży" are implemented vocational practices at different levels: the vocational practice of a sailor (basic), during which a trainee learns maritime customs, get familiar with the ship, with the sea, learns teamwork, conducts sailor's maintenance works, learns to serve on lookout, to steer a ship, learns the basic elements of navigation.

Next and more advanced vocational practice is intended for students of the Faculty of Navigation, there is the collision of theory with practice after the second year of theoretical education. Students on modernly equipped bridge learn to work with maps, navigation, to operate modern navigation equipment, to study weather forecasts, get familiar with elements of ship construction, to operate and useing of devices. Operating sail ship continues training in principles of teamwork, leadership, responsibility for colleagues who are members of a team often performing dangerous work.

While serving vocational practices, as specified in Maritime Education and Training, students of Faculty of Navigation undergo: e.g. training on a bridge, on a deck, instructional training, training during maneuvers in and out of a harbour (De Simone 1997; Koczorowski, 1996).

Advanced apprenticeship for students of the Faculty of Mechanical and Electrical Engineering involves assisting engineer officer during the watch in an engine room, reading and applying technical documentation, diagrams and instructions, as well as assisting a crew in small repairs and maintenance of electrical equipment and in an engine room.

1.3 Apprenticeship duration

To obtain a degree of the watch officer, an engineer officer or an electrotechnical officer, in accordance with the Regulation of the Minister of Transport, Construction and Maritime Economy dated 7th August 2013 (Journal of Laws, item 937) on the training and qualifications crew's members of seagoing vessels, students must complete 12 months of vocational practice. The part of it, in accordance with the curriculum of study and field of study, is carried out on the Maritime University training ships, and the remaining part is completed with apprenticeship with shipowners of merchant ships.

Students of the Navigation Faculty hold 7 or 10-day candidate vocational practice, then after completing the first year of study, they hold a monthly sailor's practice, the next advanced two-month apprenticeship takes place after completing two years of studies, and then during the third year

of study a two-weeks practice of maneuvering & radar using is held on the ship "Horyzont II."

Students of Electrical Engineering Faculty and of Maritime Engineering Faculty, after completing the second year of study are being trained: for one month by electricians, for two months by engineers on the decks of "Dar Młodzieży" or "Horyzont II."

The deck of "Dar Młodzieży" holds also the possibility of an apprenticeship for students of other universities, as well as students of maritime schools. "Dar Młodzieży" has been implementing program of vocational practices for several years for:

- students of Maritime University of Gdynia;
- students of Maritime University of Szczecin;
- students of Maritime University of Antwerp;
- secondary maritime schools' pupils of Gdańsk, Świnoujście and Szczecin.

If time allows, then training cruises are involving sailors and other people doing their individual practices.

Vocational practice on a training sailing vessel is unique, since it is carried out under strict supervision of instructors, based on detailed apprenticeship programs.

The training ship is adapted for such vocational practices by providing adequate equipment and devices, and also has staff experienced in supervising apprentices [interns]. This makes the practice at "Dar Młodzieży" very special and it cannot be compared with practice held on a merchant ship. This is why the demand for training ships practices increases, as shown in the following tables and based on which graphs were drawn.

The demand for such vocational practices may be evidenced by their implementations, taking into account elements of "good seamanship", probably due to the extensive experience of the Maritime University in this regard. As Karol Olgierd Borchart wrote: "Universities with rich traditions breath with them. Teachers and alumniees are involuntarily trying to adjust to paradigms proven through years of practice" (Borchart, 2010), which imprints a long-lasting impression on behavior of a future officer.

2 DIVISION OF VOCATIONAL PRACTICES BASED ON THE NUMBER OF TRAINED APPRENTICES

2.1 Trained apprentices

The following table contains the number of students of the Maritime University in Gdynia and trainees from outside the university trained on the "Dar Młodzieży" in 2008-2015, with a forecast for 2015.

While analyzing Table 1 it can be noticed that over the eight researched years and while taking into account the forecasts for year 2015, the number of apprentices as compared to the base year 2008, has gradually increased from 89 trainees in 2009, to 551 trained in 2013. Presented data show that the number of apprentices has doubled in 2013 as compared to 2008.

Table 1. Number of trainees from the Maritime University and from outside the university trained on the ship "Dar Młodzieży" in 2008-2014, with a forecast for 2015. (Own study)

Years	Students of GMU	Other Students	A total of apprentices trained on the ship
2008	272	232	504
2009	253	340	593
2010	300	331	631
2011	371	390	761
2012	421	364	785
2013	487	568	1055
2014	309	445	754
2015	381	524	905

Figure 1 shows a graph to illustrate data presented in Table 1.

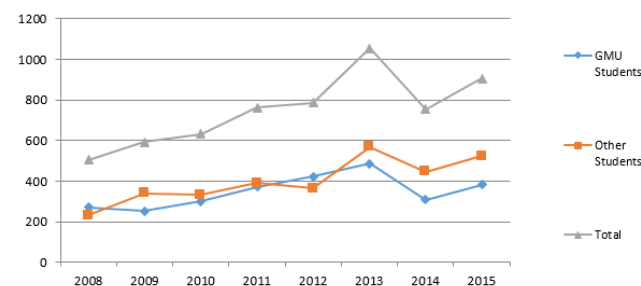


Figure 1. The number of apprentices from the Maritime University and from outside the university trained on the ship "Dar Młodzieży" in 2008-2014 with a forecast for 2015, in a form of a graph (Own study).

Forecasts for year 2015, under the signed agreements and plans of individual Faculties, assume the training of more than 900 apprentices.

The average percentage of growth of the number of apprentices is 5.14% per annum for the timeframe from 2008 to 2015. The Year 2013 was the record one, when there was trained 1,055 apprentices on the "Dar Młodzieży", the number representing 52.22% increase as compared to year 2008.

Table 2 shows the number of students of Gdynia Maritime University, who held vocational practice on the ship "Dar Młodzieży", together with a forecast for 2015 year, divided into individual Faculties.

Figure 2 shows the data from Table 2 in terms of graphic design.

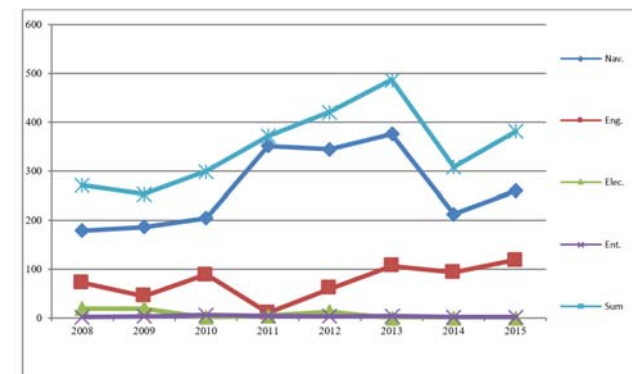


Figure 2. Number of students of Gdynia Maritime University trained on the ship "Dar Młodzieży" in years 2008-2014 with a forecast for 2015 in a form of a graph. (Own study).

Table 2. The number of students of Gdynia Maritime University, who held vocational practice on the ship "Dar", together with a forecast for 2015, divided into individual Faculties. (Own study).

Years	Faculty of Navigation	Faculty of Marine Engineering	Faculty of Marine Electrical Engineering	Faculty of Entrepreneurship and Quality Science	Sum
2008	179	72	19	2	272
2009	186	45	19	3	253
2010	204	89	1	6	300
2011	351	11	5	4	371
2012	345	60	13	3	421
2013	376	107	0	4	487
2014	213	94	0	2	309
2015	260	119	0	2	381

From data presented in the table and the graph it follows that the number of students engaged in practices during the researched period increased on average by 16 students per year, namely, an increase of nearly 6%. In a period of seven years, it gives an increase of 112 students. The largest growth of Gdynia Maritime University's students in the number of trained on the "Dar Młodzieży" took place in year 2013, when about 215 students more were trained than in 2008, which gives increase of 44%.

Growth trends can be observed in specific Faculties, which is associated with the growing number of students in individual years, as well as the requirements of the maritime administration to prolong the required time of internships for students of the Faculty of Engineering and the Faculty of Electrical Engineering.

Students of the Faculty of Electrical Engineering are directed to the curriculum internships on board of "Horyzont II." Not many trainees from this Faculty undergo vocational practice on the ship "Dar Młodzieży", which is illustrated by Table 2.

At the Faculty of Navigation we observe a constant increase in the number of students undergoing practice on the "Dar Młodzieży" in the timeframe from 2008 to 2013 year. The reduction in the number of students presented in Table 2 is misleading because due to the lack of places on "Dar Młodzieży" students underwent their internships on board of "Horyzont II."

The figures above do not give a complete picture because they do not present the days that students spend on practices on the ship "Dar Młodzieży" – they only present the number of trained persons.

This is due primarily to the period that individual Faculties have planned for students to practice. As it was previously mentioned, basic practices are held within monthly or bimonthly periods, so in the case of bimonthly practices the number of students does not increase, but instead there increases their residence time on the practice, namely, there is an increase in the number of man-days which is directly linked to operating costs which shall be borne by the Shipowner Faculty for the vessel maintenance. In the case of bimonthly internships the number of students remains at the same level, whereas the costs of such internships increase twice, in proportion to the practice duration.

2.2 Division of internship due to a number of man-days of trained apprentices

There are presented below, vocational practices on the ship "Dar Młodzieży" according to the number of man-days of trainees.

Similarly, they applied the same division as above, namely, the number of man-days of all the apprentices and students of the Maritime University and the number of man-days trained as per faculty.

Table 3. Number of man-days of trainees from the Maritime University in Gdynia and outside the university, trained on the ship "Dar Młodzieży" in years 2008-2014, with the forecast for 2015. (Own study).

Years	number of man-days of GMU apprentices	number of man-days of apprentices from outside the GMU	total number of an-days trained on the ship
2008	9 922	6 860	16 782
2009	10 718	9 784	20 502
2010	11 516	9 377	20 893
2011	9 646	11 173	20 819
2012	12 328	10 672	23 000
2013	13 977	12 864	26 841
2014	13 376	10 607	23 983
2015	16 072	13 282	29 354

Figure 3 shows the data contained in Table 3

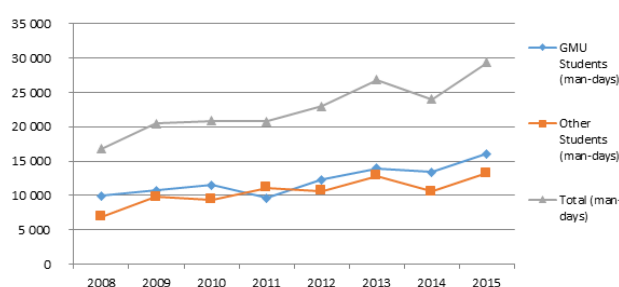


Figure 3. The number of man-days of trainees from the Maritime University in Gdynia and outside the university trained on the ship "Dar Młodzieży" in years 2008-2014, with a forecast for 2015. (Own study).

The presented compilation of the number of man-days of people trained on the ship also indicates an upward trend and confirms the previous analysis concerning the increasing number of apprentices trained on the ship "Dar Młodzieży."

Table 4. The number of man-days of GMU students trained on the ship "Dar Młodzieży" in years 2008-2014, with a forecast for 2015. (Own study).

Years	Faculty of Navigation	Faculty of Marine Engineering	Faculty of Marine Electrical Engineering	Faculty of Entrepreneurship and Quality Science	Sum
2008	8147	1725	50	0	9922
2009	8928	1144	646	0	10718
2010	8948	2548	20	0	11516
2011	9088	363	187	8	9646
2012	9794	2016	434	84	12328
2013	11319	2600	0	58	13977
2014	7206	5546	532	92	13376
2015	8970	7021	0	81	16072

In the comparison of the number of man-days of students of Gdynia Maritime University and trainees from outside the university we notice a significant increase, which translates into a total number of man-days of apprentices trained on the "Dar Młodzieży."

The total number of man-days of the trainees increases on average annually by 7%, from 16782 to reach, in accordance with the forecasts, the number of 29354 in 2015. The largest growth is planned for 2015, which, as compared to 2008, will amount to 43%, namely approximately 12572 man-days. These results confirm that the demand for vocational internships grows from year to year.

This trend is also shown in a summary in Table 4 presenting the number of man-days of the Maritime University students, broken down by Faculties.

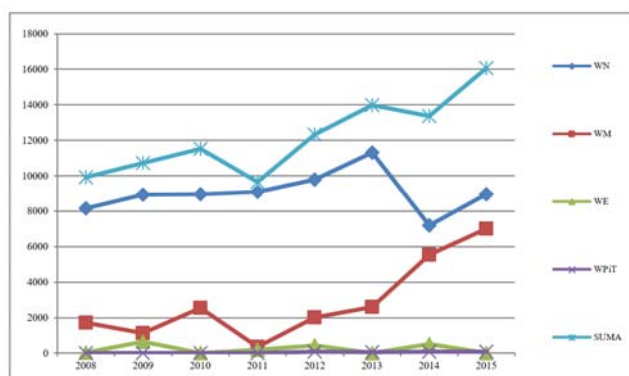


Figure 4. The number of man-days of GMU students trained on the ship "Dar Młodzieży" in years 2008-2014, with a forecast for 2015. (Own study).

In terms of division into individual Faculties the number of man-days of trained students is shaped variously.

The number of man-days, at the Navigation Faculty, over the researched years is similar.

On the other hand, the number of man-days at the Faculty of Engineering is different, where in 2008 the number of man-days was in 1725, to reach according to forecasts the level of 7021 man-days in 2015. The difference across that timeframe amounts to as many as 5296 man-days. It is an over fourfold increase in the number of man-days as compared to the base year.

The share of the number of man-days of the Faculty of Electrical Engineering is small in a summary comparison, as well as variable due to the fact that most students of the Faculty of Electrical

Engineering undergo their curriculum vocational practice on the ship "Horyzont II."

Trainees of the Faculties of Entrepreneurship and Quality Science undergo vocational practices occasionally, they are single students who assisted the Hotel Department while on board of the sailing ship.

3 CONCLUSIONS

While analyzing the presented statistics it can be seen that the number of people trained on the "Dar Młodzieży" increased. This demonstrates the ever growing demand for the implementation of such internships. The increase results from the need to satisfy the legal requirements for applicants for an officer diploma, but primarily it is caused by such internships efficiency and quality, which allows a short time to shape desirable traits in people trained. The increase in the number of trained students of Gdynia Maritime University is due to the extension of the practice by the Faculty of Engineering (the requirements of the "Regulation of the Minister of Transport, Construction and Maritime Economy dated 7 August 2013, on training and qualifications of members of the crews of seagoing vessels'), as well as due to the increase in the number of students admitted by the faculties.

In recent years there has been still increasing interest in training at the "Dar Młodzieży" among not only Polish maritime schools, but also foreign universities. Since 2007 there have been successfully implemented internships for the maritime school of Antwerp. In the next year, the "Dar Młodzieży" is scheduled to provide training for a crew of one of the African countries.

Providing an internship at the "Dar Młodzieży" to all interested parties becomes increasingly difficult despite the extension of the training season, which currently runs from February to October.

To meet this challenge, one should consider the possibility of employing the ship in winter.

The internships in the Baltic Sea in winter are associated with inclement weather, wind and frost, which does not allow as a whole using of advantages of vocational practice on a sailing ship. It is nearly impossible to swim under sails, or to carry out the sailors' work on a deck.

To ensure the proper vocational practice of students, one should consider the deployment of a ship into warmer areas, which in turn is associated with generating additional costs and limiting the opportunities for carrying out equipment maintenance, repairs and audits to renew certificates. For operational reasons it is necessary to provide the monthly stay at the home port, which with the current practice intensification shall extend the internship period by two months.

Extending the season only with such period will allow to train about 260 students more, which in terms of man-days will result in an increase by 7800 units.

In summary, there is a possibility of extending the sailing season to ensure proper internships, and simultaneously of increasing the number of apprentices trained on the ship "Dar Młodzieży," while taking into account the above factors.

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