

Performance, Outcomes and Results
The MET Network with NGO Observer Status at IMO

GlobalMET NEWSLETTER



To promote, develop and support in the spirit of cooperation, the common interests of its members in all matters concerning the development and quality of maritime education and training.

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Editorial Board:

Richard Teo
Australia

Sriram Rajagopal
Hong Kong

From the Chairman



Dear Members,

The past two years have been tumultuous for the world as well as the maritime sector. Training centers have been affected by it, and many of us have been affected by it, both professionally as well as personally. Travel restrictions have also forced us all, as institutions and organizations involved in maritime training to rethink our strategies and delivery methods. Many organizations have adopted online training grudgingly, without the benefit of time, preparation or the financial backup to prepare for this transition. Others had already invested time, money and energy in it, yet there are few who can claim to have been fully prepared for it. Maritime training is vocational in nature, and training needs are often a combination of hands-on learning mixed with some element of theory. Some aspects can be done online, others need a person to handle equipment with their bare hands. If anything, the last two years have shown us both, the capabilities and limitations of online learning. These are the challenges that we will all have grapple with for some time. It is at times like these that we can realize the benefits of collaboration. As GlobalMET writes a new chapter, we hope we can be an umbrella body that fosters such inter-member collaborations.

Much has happened at GlobalMET as well. In order to be more centrally located and closer to our members as well as world centers of shipping and maritime training, your association has now shifted itself to Hong Kong while improving its online presence to be approachable worldwide. We are now a 'not-for-profit company' incorporated in Hong Kong. We welcome Mr. Jagmeet Makkar (Director) to our team. He will help us in Hong Kong, while our secretariat will continue to provide support from India. As of 8th October 2021, we had 50 members in 23 economies. We have added a tiered structure of memberships that allows different types of organizations to become a part of us. You can see an updated list of our members on the GlobalMET website (www.globalmet.org). We have improved the website and given it an entirely new look to make it easier for you to navigate. Members can post news from their institutions on dedicated pages for each of them. If you would like to avail of this, please send your news and photos to the secretariat.

Our Newsletter has been resumed and we intend it to be published regularly, as these newsletters are a useful

medium for us to stay in touch with each other, to keep you abreast of happenings and to discuss common issues and learnings. If you would like to send any original articles regarding training for publication, please send them to sriram.rajagopal@globalmet.org. We continue to be active at the IMO level and have a page dedicated on the GlobalMET website outlining our activities. This includes our recent participation at IMO MSC 101, ISWG MASS1 and HTW 7. A list of the model courses that GlobalMET contributed to, meetings it attended, presentations made and our biennial activity reports are available on the website. If you would like to commence or collaborate any projects or contribute to these activities, please send us an email using the website contact page or by writing directly to jagmeet.makkar@globalmet.org, secretariat@globalmet.org, execsec@globalmet.org and sriram.rajagopal@globalmet.org and we will get back in touch with you.

We have been supporting webinars all through the year. You can find details on these on the website's "Our activities", "GlobalMET news" and "News and Conferences" tabs. On 29th September 2021, your chairman presented a session at the ThaiMET webinar titled "Competencies and learning methodologies for the future". The focus of the presentation was to explore how maritime education and training can use new technologies to help improve seafarer competencies. Experiences of their use, and ways to address any challenges were discussed. The role that cross organizational collaborations can play in overcoming current issues was emphasized. The use of auto intelligent routine, just in time (JIT) arrivals, augmented reality, apps, interactive goggles with real imagery to help familiarize new recruits with parts of a ship and live machinery data were some topics that were explored. This was followed by a Q&A session. The webinar is available for your viewing on YouTube.

As we approach the end of this calendar year, we look forward to increased participation from all our members.

By

Capt. Pradeep Chawla

Managing Director – Group QHSE and Training, Anglo Eastern Ship Management, Hong Kong
Chairman, GlobalMET



Editorial

This year, 2021, in the hopefully last stages of COVID 19, our GlobalMET Newsletter is happy to announce our repositioning in Hong Kong. With the migration of GlobalMET from the Launceston campus of the University of Tasmania-Australian Maritime College (UTAS-AMC) to Hong Kong SAR, we also appear in refreshed livery for the Website and our Newsletter.

Our Chairman, Capt. Pradeep Chawla has graced this issue with a timely message to members and the readers at large, in the maritime education and training industry.

This issue presents us with new authors and some insights and very thought provoking topics;

- Sule SV (Capt.) introduces Problem Based Learning, a popular outcomes-based delivery methodology that provides the learner a refreshing change from boring lectures and onerous examinations. Evidence based assessments are embedded in the delivery of performance based outcomes (standards) in tertiary vocational education and training (VET). MET will no doubt follow suit.
- Jagmeet Makkar begins his series on Ship to Shore transportation, with Commercial Aspects of Shipping Part 1. Indeed much desired and valuable knowledge and skills for seafarers aspiring for shore appointments in shipping.
- C Maheshwar's article provides insight into overcoming language barriers, particularly in multi-national crewing environments. English Language Literacy and Numeracy (LLN) continues to be an issue with on board communications and work directions and are Work, Health, Safety & Environment (WHSE) considerations considerations in most industries employing multi nationals.
- Capt. S Rajagopal presents his paper on 5 ways of making teaching and learning interactive. This is a very important aspect of delivery for adults and performance based learning outcomes. Outcomes based and competency based delivery need interactive exchanges, are learner centred and risk-based (QA) for successful outcomes in the learning environments onsite and offsite.

- Capt. M A Farooq from the Maritime Training Institute (Pakistan) shares with us, details of his institute's suite of courses and learning.
- The modern AMOSUP - Maritime Academy of Asia and the Pacific training ship, Kapitan Gregorio Oca (KGO), carries training ship tradition to the 21st Century. Videos shared by courtesy VADM Eduardo Santos. Go to Link <https://fb.watch/99Jpj4nk45/> and page 16 for photos.

Evidence based assessments have been an STCW requirement since 1995 amendments. Yet, many institutions have been unable to provide real-time evidence assessments. Unavoidably many can't afford these ships. Will employer-based training return to our fold to alleviate this requirement? It's happening in some industries already, especially with 3rd Party assessments.

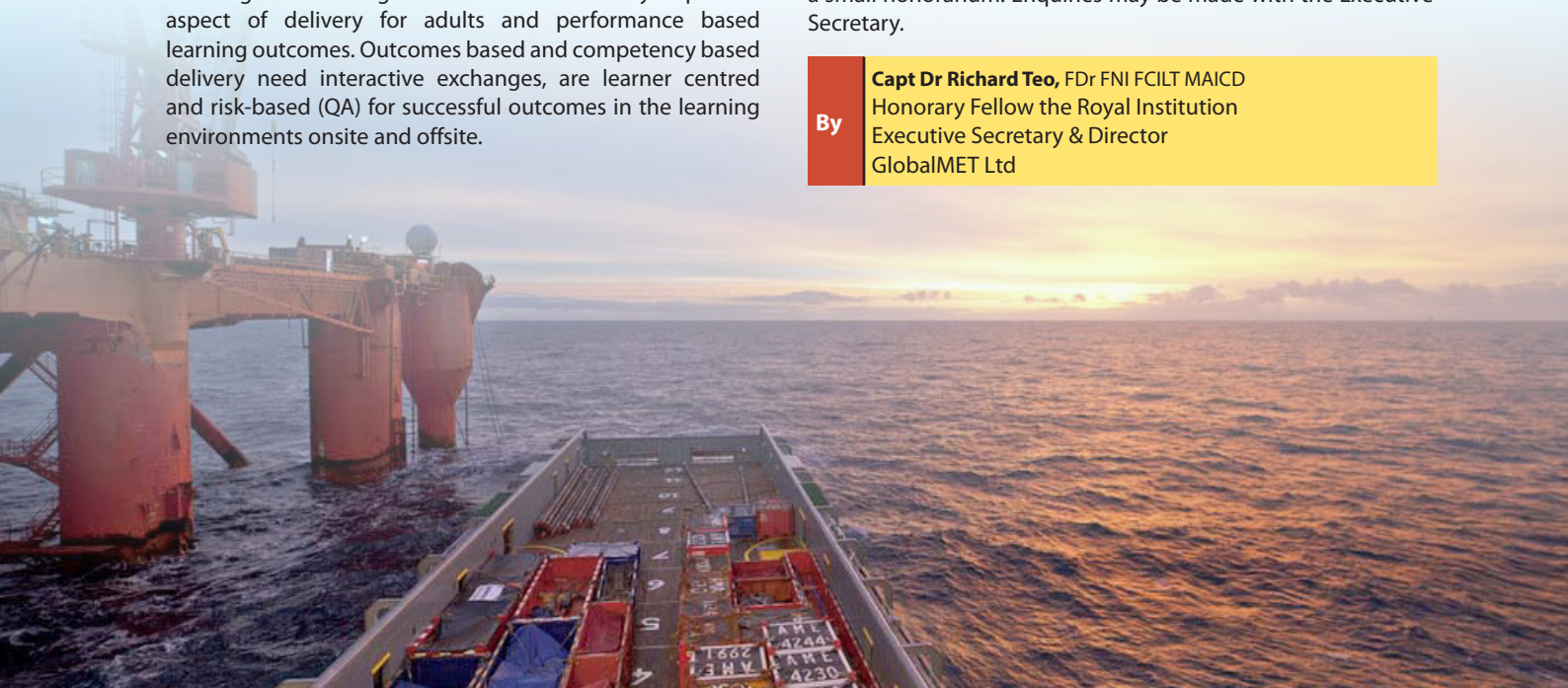
Capt. Sriram Rajagopal has kindly consented to chair the Editorial committee (EC) for our newsletter. He will no doubt be looking for at least another two authors/writers to join the committee. Articles and papers are most welcome and hopefully members will keep sending in their papers and annotations.

This newsletter will also likely be my last editorial as retirement beckons. It leaves me to thank,

- The Chair and Board of Directors.
- All members, their staff, and the learning communities in their MET domains.
- Our secretariat and team(s) in Mumbai led by Mrs Shilpa Bugnait and Capt. Sanjay Bugnait, who continues to provide us with their superb multi-domains services.
- all volunteers who gave us much of their time and energy.

Expressions of interest for the position of Executive Secretary will be posted soon. This is a voluntary function and role with a small honorarium. Enquiries may be made with the Executive Secretary.

By **Capt Dr Richard Teo**, FDr FNI FCILT MAICD
Honorary Fellow the Royal Institution
Executive Secretary & Director
GlobalMET Ltd





Problem-based Learning Approach to Maritime Education and Training

“Some of the most brilliant, creative people I know did not do well at school. Many of them didn’t really discover what they could do—and who they really were—until they’d left school and recovered from their education.”

Sir Ken Robinson, eminent educationist, thinker.

It is no longer a surprise for maritime trainers to see their academically brilliant student coming back with mediocre reports from their superiors, while some average students earn a reputation of being trustworthy professionals. For a teacher, it gives a feeling of twofold failure: failing to train that bright student in the skills s/he would need at sea, and failing to see the makings of a professional in that unassuming student he often ignored. Is this the failure of the individual teacher/trainer or the roots of this paradox go deeper than that? To answer this question, a few more questions need to be asked and that will show us the way.

Did the teacher decide which topics should be taught in the classroom?	(No)
Did the teacher decide how the topic should be taught?	(No)
Did the teacher have adequate experience in the subject being taught?	(Yes)
Did the teacher undergo adequate training in teaching and assessment?	(No)
In an ideal world the answers to all these questions should have been.	(Yes)

A majority of maritime trainers have extensive sailing experience and hence have a good understanding of what knowledge and skills are needed at sea, and what is superfluous; however, their knowledge about the process of learning is limited. For example, in India where I have taught for nearly two decades, a typical maritime trainer receives two weeks of instructions by way of a “Trainer and Assessor” course, which is far from sufficient for making a sailor into a teacher. This paper examines the feasibility of application of ‘Problem-based Learning’ to maritime teaching/training; and the subsequent discussion is on maritime training and assessment.

The gap between classroom curricula and the real-life challenges facing marine professionals is ever widening. The major reason for this, is the evolution of the syllabi and teaching methodologies of maritime training are not able to keep pace with the rapid technological advancements and other challenges in the real world. There is urgent need to do some hard introspection, and to find if any changes in the existing curriculum-content as well as teaching and assessment methodologies will be helpful in addressing this situation. Curriculum designing must be a dynamic process undertaken jointly by senior marine professionals and educationists.

On investigation, ‘Problem-based Learning’ (PBL) approach, tried out successfully in the fields of medical education and management studies, appears suitable for the environment of maritime education. The author has experimented with this approach for over a decade and is keen to share own experiences. Further, the need for systematic orientation of senior seafarers to the field of maritime education, before

taking up the responsible position of a maritime teacher must be addressed.

Unfortunately, maritime education and training has a strong element of ‘regimental thinking’. The syllabi are often reactive, having been shaped by accidents, rather than being designed proactively by foreseeing the future. Further, those who design these syllabi are far removed in time and space from the trainees. Although their professional knowledge is beyond questioning, their understanding of matters related to education and the learning process leaves much to be desired.

Bloom and the levels of learning

Benjamin Bloom professed six levels of learning viz. knowledge, understanding, application, analysis, evaluation and creation. In that hierarchy, knowledge (read ‘remembering facts’) is at the lowest level. For a professional to perform effectively, s/he has to ascend at least two more rungs of this proverbial ladder and those are ‘Comprehension’ (understanding) and ‘Application’ (using). To achieve this, the teaching methodology as well as the assessment system has to undergo a sea-change (pun intended!).

Experiments in application of PBL to Maritime Education

What if the student begins learning at the highest level, namely to create? Here are some examples which I have used in my classrooms.

Example 1 Ship Construction

Problem: A ship suffered heavy-weather damage to the shell plating in the fore-peak region. What constructional features could have prevented this damage?

To solve the above problem, the team of learners will have to first find out about the structure of the ship’s fore part, what stresses it is exposed to and how to strengthen it. It is not necessary that every team will eventually rediscover the “only correct answer that is panting beams”. There is every possibility that each team will come up with some innovative ideas. Even if nine out of ten solutions may not be feasible, this process itself will take the students through the various levels of learning and help them build a robust base of underpinning knowledge. This discussion will pose the right opportunity for introducing the concept of ‘Section Modulus’ and how to enhance it by utilizing various design features.

As compared to the traditional method wherein a student learns the names of various strength members, learns to draw the midship section plan of a ship,, learns the various motions and stresses that a ship is exposed to in rough seas and finally reads case studies such as this one, in this case we begin with the case study, posing it as a problem which the students attempt to solve, discovering the above *en route*.

PBL thus holds within its delicate folds the ‘aha’ moment for the learners, not to mention the sense of discovery experienced by them, problem solving and naturally, a better understanding of the above. In a practical field like shipping, understanding and applying knowledge in real life situations is often far more important than being able to reproduce it in a test paper.

Why PBL?

A well designed PBL gives students the opportunity to develop the skills to...

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> • Improve self awareness | <ul style="list-style-type: none"> • Think critically | <ul style="list-style-type: none"> • Apply course content to real world examples |
| <ul style="list-style-type: none"> • Hold leadership roles | <ul style="list-style-type: none"> • Explain concepts | <ul style="list-style-type: none"> • Carry out independent research |
| <ul style="list-style-type: none"> • Problem-solve | <ul style="list-style-type: none"> • Practice self-directed learning | <ul style="list-style-type: none"> • Work in teams as well as independently |
| <ul style="list-style-type: none"> • Improve written and oral communication | | |

Example 2: Ship-handling (Simulator-based exercise)

Task: To maneuver the given ship to the designated anchoring position through vessels anchored in shallow water, in strong current.

Here, the students are required to study the maneuvering characteristic of the ship, to appreciate the set and drift of the prevailing current, influence of shallow water effect and anticipate the ship's response to it, rather than following a 'cast-in-stone' kind of procedure dictated by the trainer. The trainee is allowed to discuss and plan the task with team-mates, make mistakes, weigh pros and cons, understand the principles involved, and then come upon a safe and repeatable maneuver. This is Self-Directed Learning and makes the students rather than the trainer the focus. The trainer's role here becomes that of a guide.

Conclusion

Having observed the shortcomings of the present-day system of maritime education and assessment, it is evident that some major changes are necessary not only to the system but also to the teachers and trainers who are involved in its implementation. The current training imparted to the maritime trainers about education is grossly inadequate. A systematic regime for the maritime trainers is absolutely necessary and the most appropriate method may be problem-based, self-driven learning under expert tutelage.

We, the maritime training community, need to closely examine our curricula and teaching methodologies to ensure maximum relevance to the challenges of the seafaring profession. A systematic study needs to be jointly undertaken by experts in the fields of shipping and pedagogy, for this purpose. Case studies of

nationalities other than the Commonwealth seafaring countries, implementing very different systems of maritime education will be helpful in understanding the bigger picture and changing our system for better. This process will be meaningful only when the maritime trainers get involved in the process of continuous introspection and upgradation of their pedagogic skills.

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About the author

Capt. Suneel V Sule has sailed extensively for twenty-five years. He stepped ashore in 2003 and after his Extra Masters, has taught competency as well as value added courses at LBS College of Advanced Maritime Studies and Research and Anglo Eastern Maritime Training Center, Mumbai. He is now the Principal at Anglo Eastern Maritime Academy, Karjat, India.

The views being expressed in this article are of the author and may not necessarily reflect those of his/her employer.

Editor's note: What do you think about the points made in this article? What has your experience been? Do send us your comments on (rajagopals@angloeastern.com).

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Ship to shore transition series Part A: Commercial Aspects of Shipping – Part 1: Shipping Markets



Skills+



UNDERSTANDING BASICS OF SHIPPING MARKET SUPPLY & DEMAND MODEL

Why Ships?

The demand for ships is derived from the demand for the goods that they carry; that is why economists refer to merchant shipping as a derived demand. The customer, who is usually but not always, in a different country from the producer of the goods, wants those goods to be delivered to him safely and at minimum cost. Note that the word 'quickly' was not included with the other two requirements i.e. safely and at minimum cost. Speed is certainly important for some commodities and for these there are other forms of transport such as air freight which is ideal for small but highly valuable items of cargo. But air freight is very costly so that it would be ridiculously expensive to transport, say, coal or iron ore by air even if it were possible.

Sea transport may be considered a relatively slow but inexpensive form of transport and because modern ships are capable of carrying hundreds of thousands of tonnes, the cost per tonne/kilometre adds only a small amount to the cost of the commodity being carried. This enables bulk materials to be moved half way around the world and still arrive at an economic price. That is why by far the greatest volume of goods involved in international trade is carried by sea.

An Introduction to the Theory of Trade

The movement of cargo by sea comes about as a result of one party - the exporter - selling a commodity to another party - the importer - this sale from one to another is, of course, referred to as trade. You will often hear the exporter referred to as the consignor or shipper. The importer may also be referred to as the consignee or as the receiver.

The first obvious question is why should "A" buy goods from "B"? The immediate and equally obvious answer is that "A" needs or wants what "B" produces. This comes about due to the uneven distribution of resources throughout the world. Note that the reference was to distribution of resources not simply the distribution of commodities. For example, Great Britain, once a major exporter of coal still has substantial reserves but only a very small annual production because extraction is uneconomic. Australia also has coal and although the two countries are more than 10,000 nautical miles apart, Australia is able to sell coal to Britain.

Before dealing with this apparent paradox, let us concentrate first upon the implications of 'resources', there are two more expressions commonly used by economists that need to be mastered when considering the theory of trade. The first is absolute advantage, which refers to a commodity that one country has in exportable quantities but which another country has none. Examples could be bananas or coffee, these cannot be produced in Northern Europe whilst they are in abundance in the West Indies and Brazil. Such an absolute advantage is the result of climate. Absolute advantage may also come about through geology and a good example is copper that is mined in several parts of Southern Africa whereas many countries that need it to produce goods have no such mineral deposits of their own.

Thus, in the case of absolute advantage, the resource is simply the physical availability of the commodity. Other factors are, however, involved which lead to comparative advantage. In simplistic terms this means where one country produces a commodity more cheaply or in a more desirable form than another.

In addition to climate and geology there are other factors of production that create a comparative advantage. These factors tend to fall into four categories namely Land, Labour, Capital and Enterprise. No two countries have exactly the same resources and few, if any, countries can be considered as being self-sufficient. For example, even with the wide-ranging natural resources that are present in a country like South Africa, the lack of appreciable quantities of oil prevents the country being self-sufficient.

Over a period of time, countries have specialized in those products where they have a comparative advantage. This specialization is reflected in the trend in international trade.

In recent years, growth in demand has been strongly supported by a substantial shift in global production capacity to Asia, in particular China. Consequently, China today, with its voracious appetite for iron ore to fuel its steel production, is the single most important factor that is driving the freight markets to heights never seen before¹.

Economic Models of Trade Flows

There are two 'traditional explanations' of trade flows, both concentrating on the supply side of the economy. They essentially argue that trade flows are driven by relative costs only. The models try to explain why one country exports certain commodities and imports other, different commodities in exchange. It implies that one country has a cost advantage relative to the other country, for one industry. Thus Saudi Arabia is abundant in oil, which can be extracted cheaply because its fields are on land, easily drilled and extracted, and moved to the coast for export. It has a cost advantage in oil production. On the other hand, Japan has a cost advantage in car production, so both can trade. Note that this is Inter-industry trade, not intra-industry trade.

Absolute Advantage

This is sometimes called Ricardian Trade, after David Ricardo, the first economist to develop the theory. The theory basically argues that a country will export those commodities which it produces more cheaply than any other country, and in exchange, import those products which it produces less cheaply than elsewhere. The obvious examples of 'absolute advantage' would be a country's natural endowments of raw materials and natural resources. In Saudi Arabia's case, as mentioned above, an absolute advantage exists in oil production, as it does in other Middle East economies which are similarly blessed. Brazil and Australia are endowed with iron ore, Japan has none. A natural trade is for Japan to import these essential manufacturing raw materials as it has no such materials itself.

One question that arises in this theory is this. Suppose an economy say economy A, was absolutely more efficient in production in all goods, compared to another economy (B).

If Ricardo's doctrine is correct, it would appear that economy A should never trade with B, since it is capable of producing both products more cheaply than B. Since, in real life, it is often argued that Japan, say, or the US, is capable of producing all goods more cheaply than the UK say, then why should these two economies trade?

It turns out that Ricardo's theory is flawed. Absolute advantage is not required to generate trading opportunities. The major traditional theory of international trade is known as the theory of comparative advantage, which is discussed in detail below.

Comparative Advantage

The doctrine of comparative advantage is the most widely known theory of trade flows. The idea behind it is best understood with the aid of an example. Suppose that you are a computer whiz, and also good at decorating and painting. In fact, you are better at these two activities than your neighbour, Fred. Fred is not too good at computing, but very good at decorating and painting, though not as good as you.

Initially, both you and Fred spend equal amounts of time in both activities. But if you trade, both can gain. This is because Fred is comparatively good at painting and decorating; if he concentrates on that activity, while you concentrate on computing, you can trade the service to each other and both would be better off. This gain arises from the fact that resources have been reallocated towards their most efficient uses; as a result, more total output (computer services and paint/ decorating) is produced, to be reallocated between the two people. In reality, comparative advantage is nothing more than the extension of Adam Smith's principle of the division of labour to trade between countries. Each country will tend to specialise in producing those products which it is relatively good at producing, and trade some of the increased output from the expanded sector for imports which replace the output lost from the shrinking, less productive sector.

Trade Growth and the Demand for Shipping Services

"Over the years, the world seaborne trade and the supply of the ships have grown to cater for the increased movement of the finished, unfinished products and raw materials across the globe. In very simple terms, this increased trade is based on the comparative advantage theory. Going by the cause-and-effect relationship, an increase in trade, which increases at a faster rate than the GDP, helps a country's GDP to increase. The direct impact is then on the seaborne trade that accounts for two thirds of this total trade.

The focus on the core competencies by the businesses and procurement of raw materials cost effectively from all over the world, cause the movement of goods. Reduction in trade barriers, thanks to the role of the WTO, has further helped. Global supply chains have evolved through fading away of the geographical and ideological barriers. In the economic context, if the differential between the prices of merchandise in two countries is larger than the total transaction cost, trade will take place.

References

¹ Globalisation and the shipping business – a shipowner's perspective (BIMCO REVIEW 2004) – By Sham Chellaram, Chairman KC Maritime Ltd.

Text adapted from the Tutorship Material with kind permission from Director General, ICS, UK for Marine Engineer's Review (India)

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Obituary to Capt. Richard Teo

Dear Members,

It is with complete shock and disbelief that we received the news of the sudden demise of the Executive Secretary (GlobalMET), Captain Richard Teo (Dr Hon), on 13th November 2021.

Richard was associated with GlobalMET for most of the organisation's life and undertook various activities for its members. He spoke very highly of GlobalMET and was proud to be Board Member. He will be greatly missed both here and internationally within the maritime and political spheres.

We will be publishing In Memoriam messages from members reflecting on their experiences with Capt Teo in the December newsletter.

Please send your condolence messages for publishing in the December Newsletter to sriram.rajagopal@globalmet.org, copied to secretariat@globalmet.org and rajagopals@angloeastern.com with the subject "In Memoriam" followed by your name.

- GlobalMET Secretariat



Overcoming Language Barriers

Language, whether spoken or written is a means of communication. However, lack of understanding and incorrect interpretation of language could become a barrier to communication and can result in the desired outcome not being achieved.

Language barriers are a common challenge in the shipping environment with multinational, multilingual and multicultural crew. What native speakers¹ often don't realize is that their own way of speaking the language 'correctly' can be as big a barrier as the listener's limited comprehension of the language, thus creating one of the greatest barriers to effective communication. Putting up an individual's personal roadblocks can lead to ineffective communication leading to accidents and loss of life and property. On the other hand, using simple words such that the listener understands what you are saying, even if it is not 'correct English' may not yield you high marks in the IELTS test, but will prevent many a accident at sea.

On 7 Nov 2007, when COSCO BUSAN collided with the Delta tower of Golden Gate Bridge at San Francisco, it spilled 53,500 gallons of fuel oil into the sea, contaminated 26 miles of coastal shoreline, killed more than 2500 birds of about 50 species, delayed crab-fishing season. The monetary loss was US\$2.1 million for the ship, US\$1.5 million for the bridge and US\$70 million for the environmental clean-up. One of the causes was miscommunication, misunderstanding and misinterpretation due to the language barrier between the American pilot and the Chinese Master. The audio transcript in the investigation report suggests that there was confusion between the centre of the dredge and centre of the channel, exacerbated by language and communication gaps, unfamiliarity with the ECDIS in use, radar clutter and dense fog.



In 1991, the *Stanyslaw Kulcinsky* allided with the Kattwyk bridge on Elbe river.

The STANYSLAW KULCINSKY allided with the Kattwyk bridge on the Elbe river in 1991. The allision occurred when German pilots using shore based radar assistance in fog were speaking with each other in German only, a language naturally unknown to Polish Master. Every deck officer has faced a similar when he wondered what the pilot, tug Master and port authority were talking to each other in their native language. Since these local language communications take place continuously, and the pilot's own command of a common language with the bridge team may be limited, one wonders how this obstacle can be overcome. A common myth is that English is the common working language in the maritime sector. In reality, pilots, stevedores and port authorities in most Francophone countries including thirty one African countries normally speak French, those in Central and South America speak either Spanish or Portuguese. English language skills as well as communication skills vary dramatically across the world and even within the same pilotage district. The most over-used phrase in this context remains "no problem". Pilots in Japan on the other hand have mastered the art of clear efficient communication, using a combination of unmistakable actions, standard operating

procedures, ready cards with written words, figures and images, irrespective of their own or the crew's personal English language skills.

Cultural differences too have a role to play. In 1996, the WEALTHY RIVER, a ship manned with Chinese seafarers was under pilotage in a dredged channel outside the entrance jetty of Charleston Harbour, South Carolina, and approaching the Pilots disembarkation position. The American pilot indicated, as a matter of courtesy that the pilot boat was alongside to port. The Chinese captain, who spoke limited English, misinterpreted this as a command to turn to hard to port, and ordered the helmsman to do so. The vessel, which had been in the centre of the channel, swung to port and proceeded towards the north edge of the channel. Before the situation could be corrected the ship had left the dredged channel and grounded almost immediately. The passage had been taking place in the dark. The Pilot had been unable to see the helmsman turn the wheel to port and had been unable to understand the conversation between master and helmsman.

However, communication gaps can even exist between seafarers of the same nationality. The collision between SAMCO EUROPE and MSC PRESTIGE in December 2007 occurred due to a misunderstanding between officers of the same nationality, both with reasonably good English language skills. Misunderstandings commonly occur between pilots and tug Masters who not only speak the same language, but also know each other personally.



Communication gaps contributed to the collision between *Sea Daniel* and *Testbank*.

On 22nd July 1980, the bulk carrier, the SEADANIEL, was inward bound in the Mississippi River Gulf Outlet (MRGO), while the containership TESTBANK was outward bound, both vessels with Pilots on board. The channel was narrow and required them to pass quite close together. The bridge of SEADANIEL was manned by one British and three Chinese nationals. The bridge of TESTBANK was manned by mostly Germans. The passage of the SEADANIEL was without incident until the two vessels approached each other. As the ships were approaching, the orders given by the pilot on the SEADANIEL were not followed as accurately as he would have liked. This created a situation that resulted in the pilot raising his voice and the Chinese helmsman becoming nervous and failing to understand the instruction given. As the vessels approached each other, the SEADANIEL took an unexpected turn to port due to an erroneous rudder response to the pilot's starboard rudder order. This resulted in a collision with the TESTBANK, raking her down the port side. The probable cause of the incorrect manoeuvre was the application of port rudder by the helmsman of the SEADANIEL when the pilot had ordered starboard rudder.

In 1996, a miscommunication between the Pilot and the Master of the BRIGHTFIELD may also have precipitated an allision between the vessel and a quayside shopping center on the New Orleans Riverwalk. When the Pilot first boarded the

¹ In the case of English language, the term 'native speaker' is normally used to describe people from the United Kingdom, Canada, United States, Australia and New Zealand

vessel it appeared that the Master could understand him fully. Everything continued normally until a problem occurred with the mechanics of the vessel and when the Pilot queried the Master as to what the problem was he received no reply. As they approached the quay the order for full astern prior to the impact occurring, was not carried out, however with the little control that remained the Pilot managed to avoid a number of docked vessels. The initial investigation into the accident focused on a number of issues including that of whether language barriers between the American River Pilot and the Chinese crew affected responses. The Pilot suggested that the Chinese master spoke only a 'kind of broken English' and that he had not received any response to his commands to put the engine full astern, away from the riverbank. But then, as any seafarer will testify, it is broken English, peppered with local words that allows them to communicate with people across the world efficiently. One of our colleagues attempted to use the IMO Standard Marine Communication Phrases with the VTIS in one of his voyages as attest case. They could not understand what he spoke most of the time, and he had to revert to commonly used marine phrases to get his message across.



Brightfield allision 1996, New Orleans Riverwalk.

Between 1975 to 1996, there were at least 24 incidents in Canadian pilotage waters in which problems with language and communication led directly to occurrence of an incident.

Solutions to overcoming language barriers

Kate Berardo has highlighted 10 Strategies for Overcoming Language Barriers.

1. **Speak slowly and clearly.** Focus on clearly enunciating and slowing down your speech. Even if you're pressured for time, don't rush through your communication. Doing so often takes more time, as miscommunication and misunderstanding can result and you'll ultimately have to invest additional time in clearing up the confusion.
2. **Ask for clarification.** If you are not 100% sure you've understood what others say, politely ask for clarification. Avoid assuming you've understood what's been said.
3. **Frequently check for understanding.** Check both that you've understood what's been said and that others have fully understood you. Practice reflective listening to check your own understanding (e.g. 'So what I hear you saying is...') and use open-ended questions to check other people's understanding. Ask, 'what's your understanding of this process?' instead of 'is that clear?'
4. **Avoid idioms.** Business language is often contextual, and therefore culture specific. For example, in the US, baseball terms are used extensively: 'Straight off the Bat,' 'Ballpark figures,' 'Out in left field,' 'Touch base,' 'Strike a deal'. As a good general rule, if the phrase requires knowledge of other information— be it a game or metaphor—recognize that this may make your communication more difficult to be understood. Even the maritime words port, starboard, rudder ("left rudder" anyone?), boat (we all know authorities and

pilots who refer to large VLCCs, massive container ships and small mooring boat as just 'boats'), easy, steady as she goes - can mean different things to different people depending on their own understanding, experience and framing.

5. **Be careful of jargon.** Watch the use of TLAs (Three Letter Abbreviations) and other organizational language that may not be understood by others. If you use them, provide in parentheses a description of what these are so others can learn to use the same language you do.
6. **Define the basics of business.** In international business contexts terms such as: 'success,' 'doneness,' 'meetings,' 'punctuality,' etc. may mean different things to different people. Spend time early in your communication defining what these mean to you and others. Invest in building a shared vocabulary.
7. **Be specific.** Spell out your expectations and deadlines clearly. Instead of, 'Please get back to me shortly,' say 'Please email the completed report by 5 pm Eastern Standard time on Wednesday, February 21.'
8. **Choose your medium of communication effectively.** Carefully choose your form of communication (phone or video conference, email, instant message, etc.). Be mindful not to 'overuse' email. While useful, there are times when the medium is likely to be ineffective. When a message is complex and complicated or there is tension or conflict that needs to be resolved, switch to another medium.
9. **Provide information via multiple channels.** Follow phone calls with emails that summarize what's been said. When possible, provide presentations, agendas, etc. in advance so those working in their non-native language can get familiar with materials.
10. **Be patient.** Cross-cultural communication takes more time. If not at all times, certainly initially you cannot expect your communication to occur with the same speed and ease as when you are communicating with someone from your own culture.

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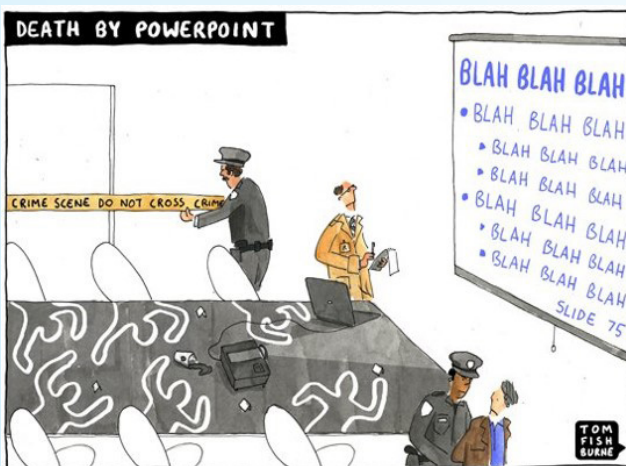


5 Ways of Making Teaching and Learning Interactive

Teaching is a joy. The first few classes of a maritime teacher¹ are fun. You are highly motivated, interested in your topic, and the experience is novel. Then, a few months later, tedium sets in. Sometimes you discover that your students are not always as excited about the topic as you are. Sometimes, you find yourself losing steam and excitement, for teaching the same topic, day in and day out, for months or even years on end is tough and can get repetitive.



Teaching is a lot like performing, and we teachers perform each day in front of their class. We are, in many ways like stage actors. We gradually learn the 'moves', learn to avoid the 'sticky feet' syndrome, figure out what to do with our hands (how much should we wave them around?), learn how to make sense of GLOs



¹ Though there are differences between the terms, we have used the terms 'teacher' and 'trainer' in this article interchangeable to mean anyone who teaches and/or trains.

and SLOs², and with experience, we learn ways to evince interest and reaction from our students. That is the life of a teacher. For this article, I use the terms teacher and trainer interchangeably, though there are some differences between them and in maritime education, we are often required to play both roles. But teaching still remains a satisfying occupation.

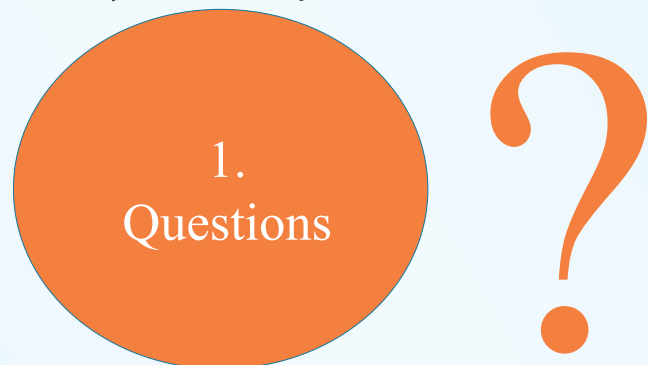
In this article, we present some methods can make it even more satisfying for both, the teacher and the students. They come from experiences of myself and my colleagues as trainers in maritime education and training (MET) institutes, classrooms and universities.

Differences between teaching in the maritime sector

There is good reason for this article, for we need to bridge the gap between what we are taught as trainers and the real world we face in the classroom. The techniques described in the two week 'train the trainer' course (IMO model course 6.09) and from other settings may not always work in the maritime sector. Three large differences exist between maritime training and general education and training. In the maritime sector, our students tend to range in age from 18 to 65 and it is common to find young 23 year old third officers and 55 year old Masters in the same class. Secondly, maritime students often have far more real world experience than university students. Thirdly, our students look for what they can use practically in their next ship, rather than theoretical concepts. These can pose challenges to the teacher. However, these differences can also be used to make teaching and learning more interesting, effective and useful for both, the teacher and student.

Here are five such ways that you can use to make your teaching even more interesting, effective and enjoyable. If you like them, the bouquets go to my colleagues who taught me these techniques and my students how forced me to learn them quickly:

1. Start your class with a question



Questions are excellent triggers. They grab the students' attention, set the mood and make them think. In fact, don't stop there. Every time you want to evince interest from students, ask them questions. Sometimes, you may wait for their answer. Sometimes, you can give them clues. And sometimes, the question can be rhetorical, with the teacher giving the answer. You can ask questions directly from particular students, without embarrassing them or you can ask them in general to the entire class. This especially works

² GLO: General Learning Objectives; SLO: Specific Learning Objectives.

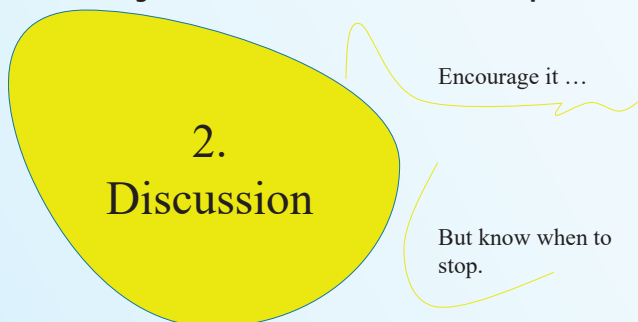
well in topics like cargo work where diverse practices exist worldwide depending on the cargo and port.

One of my colleagues who worked on a few bulk carriers as an officer, but never as a chief officer, was asked to teach bulk carrier courses. He employed this method. He asked students to describe challenging situations they had faced in various ports. He was as interested as other students in these experiences, which became a major learning for all the attendees, for port related bulk carrier practices vary across the world. He peppered them with questions till he had nearly lived through the experience. He then read more about these ports and cargoes from P&I club bulletins, and now refers to the examples and these bulletins in his courses, making them amazingly informative. If by chance a student asks a question which he does not know the answer to, he simply admits to them that he does not know, and that he had sailed on bulk carriers as a third officer, but never had the opportunity to sail on them as a chief officer or Master. This never ceases to amaze his students, who wonder how he knows so much! He also promises to find the answer and let them know.

This 'technique' works equally well in comparatively static topics like navigation. If you want to commence discussion, keep your questions open ended (Begin your question with the words "Who, What, Where, Why, When"). It helps if you have some idea of the answer. As you practice this technique, you will get better at it. A colleague of mine who uses this technique told me that he often thinks up relevant questions for each day's topics during his daily commute to the training center. That makes his questions unique every day, and ensures his as well as his students' interest in the class. Every class becomes a new learning experience for all of them.

Questions come in various flavors. Some questions can be rhetorical. Others might have a clear yes or no answer. It depends. But one thing they all do is make the listener think. They can often be a wakeup call - Literally, especially in those comfy otherwise sleepy afternoon classes!

2. Encourage discussion – but know when to stop



Many seafarers look for opportunities to share their experiences with fellow seafarers. Encourage them to describe their perspectives with respect to the topic being taught. You do not have to have answers to every question, but should have an idea of where you want the class to go. This also helps the teacher in improving his real world knowledge, since most of us stop sailing to teach, yet we want to stay abreast with the latest practices used on ships to day. Unlike university classes and cadet training where most learning occurs one way from the teacher to the student, competency courses and value added courses tend to have students with anywhere from three to thirty years of real world sea going experience. In the latter, learning happens

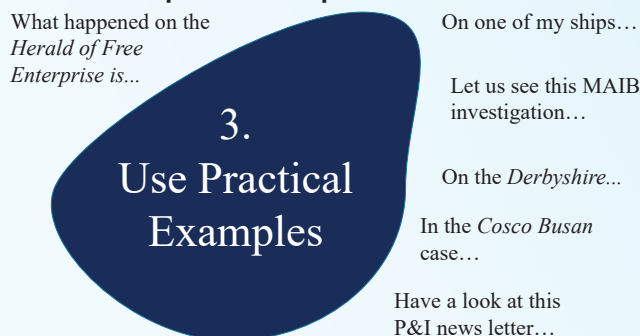
both, form the teacher as well as between students. In other words, discussions improve the quality of learning.

A note of caution – if you find the discussion wavering to other topics, getting excessively heated or preventing you from proceeding with your planned topics, don't hesitate to call time. You are the referee of the class. A colleague of mine, whose classes are always alive with discussion usually wears a wristwatch (to remind *him* of the time). When he wants to proceed with the topics he had planned for that session, he stands, makes eye contact with the class, makes a "T" shape with his palms and once they have quietened down (it takes just 20 seconds), summarizes the learning from the discussion, and says "let us now continue with the topic – this was a great discussion, but we have some more topics to cover – let us continue with them. We can of course continue this discussion after the class is over". He tells me it always works, and sometimes, the students continue the discussion over coffee or lunch. He loves the latter, for it shows that his class really got them thinking.

Also, while students like relevant experience sharing, they find the teacher who only weaves pointless 'sea stories' shallow and irrelevant.

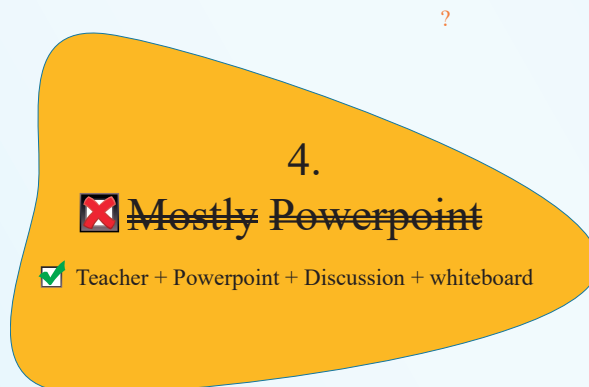
Avoid the dreaded phrases "In my times..." and "When I was a" unless absolutely necessary. The key here is to narrate an incident that is *relevant* to the topic.

3. Use lots of practical examples



Teaching navigation and the international regulations for the prevention of collisions at sea is far more interesting when you describe a real life accident that took place due to noncompliance. Photos help bring up the gravity of these accidents to the classroom and can be easily found online, especially from well written official investigation reports. We learn best when told stories, but stories without a message can just taper off. Make sure you clearly state the message and learning from the real life story that you are telling – and repeat it a few times. Don't confuse your students. They may not always agree with you, that is ok. In the maritime sector, there are some situations where there is no one right answer.

4. Don't get married to Power point



Don't get me wrong on this. Power point is good, especially to show photos, bullet points, definitions and details. However, it is just a tool – it is the *teacher* who is the main conduit who facilitates learning. Don't make power point the teacher! Use it to remember what you want to teach, and to keep the class in focus. Use it for facts, photos and diagrams. Don't read off everything from your slide – students can do that easily without you. Instead, build up on your slide. Keep your slides sparse – about 4-5 short bullet points per slide (else students sitting in the last line will not be able to read it). Avoid animations, bells and whistles. Avoid long paragraphs and sentences.

Use the blackboard or whiteboard. It is one of the best friends of a teacher. In fact, the Derek Bok Center at Harvard arranges special training for teachers on how to use the blackboard effectively. You can use it to write the most important concepts that you want your students to take home. One of my colleagues who teaches competency as well as value added courses has a habit of writing the 10 most important concepts on a corner of the blackboard or whiteboard. It acts as a reminder for him, and enables students to thereafter make notes/take a photo of it with their cellphones and dwell on them.

5. Be free to use props. Be free to use games. Joke. But stick to your strengths



Props are not just for the television program “Whose line is it anyway”. They can be used in the classroom in too. A teacher of mine used the walls and ceiling of our second mates classroom to teach us the framing used on a ship by making us imagine that we were sitting in a tank. For those who had never been inside a tank (there were a few such lucky students), he showed a few photos that he obtained from a colleague who was a ship superintendent and had just visited a ship. I still remember that class, twenty five years later. Today, we have even more tools available, Try to obtain and use live working models – especially to teach difficult machinery and processes that are difficult to visualize. This includes learning how to use the self-container breathing apparatus (SCBA), emergency escape breathing device (EEBD), the use, testing and calibration of gas detectors, opening and closing of hatch covers, hydraulic machinery, valves and pipes.

Topics like the overhaul of oily water separator can be best learnt with real equipment – try to obtain working models – or make your own non-working model. One of the training centers that I visited created a ballast tank out of concrete in the campus and used it to teach students enclosed space entry safety. Another bought mooring winches, mooring leads and mooring ropes from a scrapyard (for a steal!), installed them in the campus, and voila! They were able to created a working replica of working forecastle with mooring winches, dead man rollers, and trained students on

mooring safety using it. Teaching the topic would have been boring and irrelevant in a 40 minute classroom session. Teaching this on the ‘campus forecastle’ on the other hand was so interesting that students stayed on at the ‘foc’sle’ after their 40 minute class was over! Use your imagination to devise your own props. A friend of mine enlivens his classes using amateur paper and cardboard models made by him for specific topics. Sometimes the students make them. If anyone makes fun of them, he simply asks them how they can be improved. He says his best ideas have come from his harshest critics.

Every teacher has his or her own unique strengths and weaknesses. Be aware of your strengths and use them in the class. Be aware of your weaknesses and while you can try to improve them, resist the temptation to employ them. A colleague of mine has a great sense of humour – he uses it in the class, quietly covering every topic that he is required to cover and his classes are rarely quiet. Another colleague of mine has a terrible sense of humour, but he has the ability to simplify complex topics. He chooses to do so, using the blackboard a lot. Students enjoy both classes. As Polonius famously said in *Hamlet*, “To thine own self be true”.

In our next article in this series, we will look at how we can use these lessons for “on-board training” with some real life examples, despite the limitations that exist on board.

Till then, feel free to experiment.
Most important – enjoy your teaching experiences.

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Capt. Sriram Rajagopal has worked in the maritime sector for more than 30 years. He sailed for 17 years and thereafter worked ashore as a trainer, internal auditor, shipyard HSE supervisor, and accident investigator. He has an M.A. from the University of Greenwich (London) and taught for a brief period at the Southampton Solent University. He is currently Senior QHSE and Training Superintendent at Anglo Eastern Ship Management and has co-authored four chapters in the Nautical Institute's recent book “A guide to bulk carrier operations”.

The views being expressed in this article are of the author and may not necessarily reflect those of his/her employer.

Editor's note: Do you have any teaching or learning related experiences that you would like to share? Do send us your comments on (rajagopals@angloeastern.com).

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By **Capt. Sriram Rajagopal**
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The Role of Maritime Training Institutes in Seafarer’s Development - Sharing Our Experiences at MTI Pakistan

Human capital is the core asset of any industry. Sustainable development and progress in the shipping industry requires safe, effective and efficient operations. This is based on several factors, one of the most integral of which is the quality and competence of seafarers. This has led to continuously upgrading maritime regulations and STCW on one side and the improvement of maritime training centers and educational institutions on the other.



Survival at sea training at MTI

However challenges continue to exist on how best one can achieve the above. A multi-pronged approach consisting of high quality faculty, out of the box thinking and collaborations amongst various stakeholders is necessary. These include international regulatory bodies, administrations, international shipping forums and associations as well as maritime training and education institutions. Organizations like GlobalMET help provide a platform for this, however we all need to work together and collaborate to address these issues. In this article, we discuss some ways in which this can be done and our own experiences at MTI Pakistan in attempting these, in the view that this might be of help to other members and maritime education and training institutions across the world.

The role of the maritime training institute

Shipping requires well trained, skilled, qualified professionals. The former and some aspects of the latter are addressed by institutions that carry out training and education. Often referred to as MET providers, these institutions, be they training institutes, cadet academies or full-fledged colleges and universities are thus a fundamental part of maritime industry. IMO conventions, model courses, guidelines and recommendations do help by setting out training and certification requirements. However, it takes time to understand and implement them. In such cases, it is always useful to ask other institutions about their experiences. While it is natural for us to compete with each other, we can also help each other in small ways.

At Maritime Training Institute (MTI) Pakistan, this training is done through two broad categories: (a) Ship staff/Seafarers training and (b) Shore based training.

When MTI was set up in 1998, we chose to focus on both - personnel working on ships as well as those in the maritime industry ashore. Training the former includes short modular, STCW and value added courses as well as longer courses aimed at seafarers. The latter on the other hand focusses on training people who work predominantly ashore. This could be vocational jobs like welding, container crane simulator training for shore based gantry workers as well as diploma based courses of transportation and logistics. This dual pronged approach helps broaden the scope of the training provider, and prevents it from having to depend purely on seafarers as clientele. It has helped us thrive for the past two decades. It also helps broaden our own horizons, helps us understand all aspects of the industry and enables multiple approaches for us to do well in future.

For all training providers, being approved by the local administration is important in order to garner the trust of seafarers as well as ship owners. We did this by getting approved by the Government of Pakistan, a process that took some time, but was well worth the effort. Over the years, as we added courses developed primarily by third parties, but conducted by us, we obtained their approval too. A case in point are our seafarer courses approved by the UK Maritime and Coastguard Agency (MCA) and shore based courses accredited by the Chartered Institute of Logistics and Transport (CILT) as well as the Institute of Chartered Shipbrokers (ICS). This tends to be expensive due to licensing fees, but is an investment well worth it.

1) Ship-Staff (Seafarers) Training

A challenge that the maritime community faced initially was compliance with the 2010 amendments to STCW 95 (Manila amendments). We too had this challenge, and decided that the best way was to study them and implement them as soon as possible. This was an exercise well worth the midnight oil spent on it, as we ended up being among the first institutions in Pakistan to implement them. I would suggest that every maritime training provider keep an eye out for any changes to STCW and start implementing them as soon as possible. The early bird in this case does catch the worm! This helped us expand our STCW course training to three levels – basic, ancillary and advanced.

In addition, we added to our course offerings mandatory as well as non-mandatory courses including ECDIS (Electronic Chart Display and Information system) and HELM (Human Element, Leadership and Management) course –approved by MCA, PSCRB (Proficiency in Survival Craft and Rescue Boat), High Voltage Course, Electro Technical Course, Security training required by the ISPS code and the Able Bodied Seaman (Deck and Engine) course. We were guided by IMO model courses and made sure that we complied with the latest STCW requirements.



Maritime Training Institute (MTI)					
SHIP-STAFF (SEAFARERS) TRAINING			SHORE BASED TRAINING		
IMO – STCW COURSES	COGC-UK (OUT REACH CAMPUS)	ABLE-BODIED SEAMAN COURSE	INSTITUTE OF CHARTERED SHIPBROKERS (ICS)	CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT (CILT)	CRANE OPERATOR SIMULATOR TRAINING
STATE OF ART SIMULATORS	ADVANCED SQA DIPLOMA NAUTICAL SCIENCE & MARINE ENGINEERING	APPROVED BY LOCAL ADMINISTRATION	INTERNATIONAL TRAINING CENTRE (ITC)	ACCREDITED FOR CERTIFICATE, DIPLOMA AND ADVANCED DIPLOMA	AFFILIATED WITH MAERSK AND NORTH AMERICAN CRANE BUREAU

Course offering at MTI

Simulators

Simulators have become the *de facto* mode of training for many maritime courses. On the one hand, they instill confidence in ship owners and are a requirement for some courses. From a participant's point of view, simulators do enable them to experience shipboard conditions better than in a purely classroom based environment. On the other hand, especially from an institutional point of view, simulators can be extremely expensive to obtain and operate. They need specialized faculty and require continuous upgrades to the software. We decided to obtain simulators and, a decade down the line, this appears to have been a worthwhile decision. Our current inventory of similar based courses includes Ship Handling Simulators (SHS), Liquid and Gas handling Simulators (LICOS), Oil, Gas and Chemical tanker, Engine Room Simulators (ERS), Global Maritime Distress & Safety System (GMDSS) Simulator and Electronic Chart Display and Information System (ECDIS) Simulator and simulators for the Programmable Logic Controller (PLC) bench. Recently, we installed two new simulators for Vessel Traffic System (VTS) training and a High Voltage Simulator.

It does appear that simulators will remain a part of maritime training for the next 10-20 years and it would be useful for MET providers to keep this in mind, with full time faculty to teach these courses and to operate the simulators and dedicated in-house staff to maintain and operate them. While there are agencies that do this, our experience has been that it is far better to have full time dedicated in-house staff employed by the MET for this. Our experience has also been that simulators tend to have a high amount of workload related to them during the simulation, and it is almost always necessary to employ far more faculty for this task as compared to the minimum required by IMO, STCW and national regulations. In other words, simulators are not a one-time expense. They are a continuous expense (or investment, depending on your perspective) and will always require far more than you had originally budgeted.

Collaborations and outreach programs

The number of Pakistani students aiming to join shipping has increased over the past few years. Hence, since 2001, we decided to partner with City of Glasgow College UK as an "outreach campus" for their Advanced Diploma in 'Nautical Science' and 'Marine Engineering' programs. The course comprises of two years. Students attend their first year studies at MTI, Karachi. This is accepted as equivalent to first year studies in UK by the Scottish qualifications authority (SQA). Students then fly to Glasgow and complete their second year studies at City of Glasgow College, UK. On successful completion of second year, they are awarded Higher National Diploma (HND) by SCA.

The six month Able Seamen Training program similarly helps people wanting to join the merchant navy as deck crew. It is based on the STCW guidelines and is aimed as support level staff. We found that it was better to provide courses to all levels of officers and crew, existing professionals as well as new entrants and aspirants, rather than focus on one set of personnel alone. In financial jargon, such a 'diversified' approach seems to work better.

2) Shore Based Training

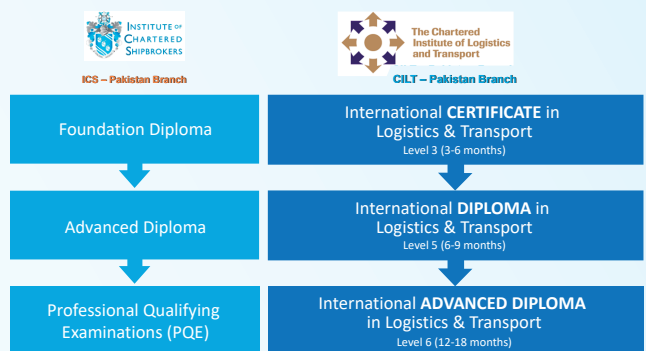
Training personnel working in the maritime sector ashore is equally important to accomplish the final objective of safe shipping and quality operations. In terms of capacity, our seafarer training infrastructure is larger than our shore staff training facilities. However, the latter fills a gap that we felt existed in the ports sector of Pakistan. It was with this in mind that we added to our capacity in a three pronged approach:

- Institute of Chartered Shipbrokers (ICS) Pakistan branch
- Chartered Institute of Logistics and Transport (CILT) accreditation
- Container gantry crane operator simulator training

We have housed the Pakistan branch of the Institute of Chartered Shipbrokers as well as an Institute Teaching Centre (ITC) in our

premises since 1990. This approach has two advantages for a MET provider. Firstly, since the latter conducts courses on regular basis through local Tutors, approved by the ICS Tutorship distance learning program, thus enabling local students to prepare themselves for the Institute's professional examinations at affordable rates. Secondly, it gives us visibility amongst a set of potential future industry leaders, vessel managers and ship owners who may not otherwise have been aware of our facilities. For MET providers who wish to pursue this path, I suggest getting in touch with ICS London.

Keeping this in mind, we began to offer customized courses of the Chartered Institute of Logistics and Transport (CILT). We currently offer an International Certificate, Diploma and Advanced diploma in Logistics & Transport, all accredited by CILT. We added BIMCO certified courses to this list as we developed expertise. The main work and expenses involved in such collaborations are time, effort, specialized skilled faculty, classroom space, advertising, paperwork and negotiations regarding these collaborations and expenses related to accreditation. Since the latter are normally measured in pounds and US dollars, their amounts can be appreciable depending on exchange rates.



Container gantry simulator course

The Container crane simulator training courses were developed to train and certify the crane operators, primarily for Maersk and the training is affiliated with the 'North American Crane Bureau'. We are currently able to train personnel for various types of cranes including:

- Gantry Crane Course – Quay crane, Rubber-tyred gantry, Rail mount gantry
- Telescopic Boom Crane simulator – Building and Highway Bridge construction
- Tower Crane simulator – Construction yard , building with anchored tower optional
- Overhead Bridge Crane simulator – Factory scenes , Multiple ware Houses
- Lattice Boom Crane simulator – Building construction site, Power-line area

Our learning

We learnt that shore based training is a highly diverse sector with numerous specializations. They need volumes to be sustainable, and the first mover has an advantage in the field. In our case, the presence of a large container handling terminal Karachi was our biggest strength. If you are a MET provider located near a port with an upcoming container terminal or terminal upgrades, this is an avenue worth pursuing, provided you are the first ones in the region to offer this training.

Training Pakistan navy personnel

We began to offer customized courses to personnel of Pakistan's navy as well as non-Pakistani foreigners in 2006. These include 'Pilotage and ship-handling simulator training' which is an integral part of the 'Long ND course'. To this were added various customized courses on navigational safety, marine engineering, safety and tanker safety aspects.

Training Karachi Port Trust (KPT) personnel

Since most navigation simulators allow users to customize programs, we were able to customize our simulator to provide training to pilots for Karachi harbor, as well as their enhancement training. One advice we would give to other METs is to obtain electronic charts as well as simulation objects for the ports where they expect such future training. Charts with simulated objects like buoys, beacons and the shore line for a port simulator are very much different from Electronic navigation charts (ENCs). The latter are easy to obtain, the former on the other hand take months to develop and are very expensive. It is best to include these in your initial purchase from the simulator vendor. If you have a port in your country, chances are that the local authorities would want to train their pilots and you have an opportunity right there, provided that you have the required simulation for them. Do remember that many simulations do not have new berths, and editing the sources code for these files is highly complicated requiring 3-D computer programmers.

The lesson for MET providers here is – if there is a port in your vicinity, contact the port authorities. There is every chance that they want to train their personnel, often in large numbers. Make a visit to the port, invite port personnel to your campus, show them your training and facilities, and ask them if they would like to consider an initial batch for training. Our experience suggest that once they see the first batch of training for themselves, they are able to see value in the exercise.

ISPS (Security) Compliance training

ISPS is here to stay. This is both, for seafarers as well as shore based personnel. The requirements for this training tends to be highly customized and local, while following the guidelines given in STCW code. We have since training personnel belonging to Pakistan International Bulk terminal (PIBT), Pakistan International Container terminal (PICT), Karachi International Container terminal (KICT), South Asia Pakistan terminal (SAPT), Fauji Akber Portia marine terminal (FAPT) and Port Qasim Authority (PQA). We also developed the Port Facility Security assessment (PFSA) and Port facility security plan (PFSP) of some of these terminals for ISPS compliant certification.

Some Other Considerations

1. **Upgradation of Simulators** – Simulators are rarely a one-time cost. They tend to require regular maintenance and upgrades. Do factor this into your budgets. We recently upgraded all our simulators with the latest available version of Wartsila. Such upgrades are essential if a MET provider wishes to maintain its competitive edge.
2. **Maritime Resource Management (MRM) Course** – We decided to become the licensed training provider for The Swedish Club Academy, now renamed ALL academy (ALL: Advanced learning for life). MRM is yet to become a STCW mandatory course, but many shipping companies require it. This course requires dedicated computers, hence it is more expensive to run than pure classroom based courses.
3. **Psychometric tests designed for maritime professionals** – Psychometric tests aim to provide measurable, objective data that can provide a better all-round view of a candidate's suitability. Some organizations favor psychometric testing as a way of screening (and subsequently eliminating) large amounts of candidates at the start of a recruitment drive, especially in their cadet selection. We developed a psychometric test for maritime professionals in consultation with internationally recognized organizations. These tests can be used during interviews for new entrants to the profession, new recruits as well as for assessing existing staff. We will keep members posted on this.

4. **SOLAP/SELAP/JOLAP/JELAP Course** – SOLAP (senior officer leadership assessment program) and SELAP (senior engineer leadership assessment program) are in-house developed courses aimed at assisting companies in assessing the suitability of their officers for assuming senior management positions. These courses and assessments can be an important tool to assess leadership competencies deemed to be important for effective performance in management positions. This includes decision-making, management, culture-building and emotional stability. JOLAP (junior officer leadership assessment program) and JELAP (junior engineer leadership assessment program) cover the same attributes with respect to operational level personnel. We developed these courses in such a way that they did two tasks simultaneously. They assessed candidates and assisted them in developing leadership and management skills.
5. **The Nautical Institute (NI) MIIA Course** – We were able to recently announce offering of various courses offered by The Nautical Institute including MIIA (Marine Incident Investigation and Analysis). Long association with the Nautical Institute enables us to have access to new opportunities. It is worth engaging with them and if you are an MET interested in this, do contact the Nautical Institute.
6. **Foundation Diploma (3 Months) for shore management** – This course is primarily aimed at personnel joining shipping companies in shore based positions.
7. **Affiliation with Guangzhou maritime university (GMU) China** – In September 2018, we signed a “MoU for co-operation and coordination to uplift the maritime education” with GMU. Such MoUs can prove beneficial for both the organizations, as each learns from the other's strengths.
8. **Out of box thinking** – If you run an MET, one thing is sure. You will always face new challenges to which no set answers exist. You will have to experiment. You have to think out of the box at times and within the maritime framework at others. Having good sensible personnel and faculty within the organization is essential. We tend to be in continuous dialogue with shipping companies. This helps us sense new needs as soon as they arise, develop courses to address them and offer them to shipping companies. This is how we developed customized courses for firefighting, rescue operation, safety, risk assessment and first aid. They have now been delivered to a number of shipping as well as shore based companies.

E-learning is a field where we expect much to happen and it will most probably be the next challenge for METs. It might compete with brick and mortar METs. METs on the other hand can help develop e-learning courses, especially if they already have skilled experienced faculty. What actually happens will be interesting to see.

I hope this article has helped you learn from our experience. Its aim was mainly to share our learnings *en route*. If you have any questions about any of the experiences described above, please feel free to contact us.

About the author

Capt. Muhammad Adeel Farooq is a maritime professional with 15 years seagoing experience. He is currently the Principal of Maritime Training Institute, Karachi, Pakistan and holds a B.Sc (Maritime studies) and MBA (Maritime). He can be contacted on www.mti.edu.pk. MTI has four campuses in Karachi, Lahore and Islamabad.

By **Capt. Muhammad Adeel Farooq** (MICS),
Principal, Maritime Training Institute (MTI), Karachi.

Features:

AMOSUP-MAAP (Maritime Academy of the Philippines and Pacific) Training Ship

MV KAPITAN GREGORIO S OCA

(Photos by courtesy VADM E Santos, President MAAP & Vice Chairman GlobalMET Ltd)

Name: Kapitan Gregorio S Oca

Commissioned January 2019

GT: 2098

LOA: 78.6 m

Beam: 12 m

Draft: 5 m

Capacity 108 cadets with 23 crew and instructors

Engine Single Daihatsu 1471 KW @ 750 rpm for 11.5 kts

Training Equipment include 2 x ECDIS simulators

Built by Miho Shipyard, Japan modeled after a Fishery Training ship.





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