

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.

www.globalmet.org

Inside this Issue

Editorial	2
Welcome to the Cloud: An Introduction	3
Casualties are Caused by Lack of Problem Solving Skills at the Work Place – A Need for an Authentic Instrument	4
Amazon Web Services: Global Cloud Computing	5
Short Story: "Aluco"	6
The Future of Maritime Education in Australia	7
Going to Sea and Being Prepared for Life	9

Articles written on behalf of GlobalMET and by other outside contributors do not necessarily reflect the views or policies of GlobalMET

Editorial Board:

Iman Fiqrie
Malaysia

Chris Haughton
United Kingdom

Richard Teo
Australia

Rod Short
New Zealand



Editorial

This issue brings to conclusion Capt Ian Gray's discussion paper on "The future of Maritime education in Australia". He makes some very challenging observations, one of which is to the acquisition of skills off site – off the job instead of on site, on board ships. Has the decline in these opportunities resulted in the reduction of qualitative qualifying service? This is a global market issue with many institutions offering aspiring officers an academic qualification via traditional knowledge based learning rather than the Certificate of Competence from competency based learning education. Many providers cite the students' preference for an academic degree rather than a vocational based qualification directly related to the STCW Convention from the respective administrations. Is there now a disconnect in how each aspiring officer is prepared for the professional and performance based duties and responsibilities on board ship and other associated roles in the maritime industry? There is the ongoing rhetoric from operators who state that the officers may have the knowledge but lack the required skilful operational performance. Readers and members may wish to comment via letters to the Editorial Committee.

We are pleased to receive from Cheng Huang Leng his contribution on going to sea and being prepared for life. Perhaps when read in conjunction with Capt Gray's article, we could piece some of the present issues together and provide some solutions. We hope to hear more from Huang Leng, former Vice Principal and Head of Marine Engineering, Singapore Polytechnic-SMA.

Rod Short's short tale "Aluco", in this issue brings much nostalgia to how on-site, on the job experiential learning methodology led to performance based professional learning. This work based learning is now very much reduced in the pursuit of qualifying sea service, despite being one of the main learning activities in competency based learning - CBL, a much-confused approach by many MET practitioners.

Iman Fiqrie brings us back to the future with his narrative on Cloud Computing. Will merchant shipping spare some training dollars to provide this urgent innovation on board ships?

The entire industry is going through digital disruption in its efforts to be more competitive. Why not human resources development on site as practised in many other industries?

Richard Teo brings us back to earth with a short re-routing to the current spate of casualties, where well equipped modern merchant ships have collided with even better outfitted and equipped naval ships that reportedly had state of the art navigational equipment and very well-trained crews? Were the affected crews sufficiently well developed and trained to perform on the job under all the possible conditions 7/24? Does the maritime industry help develop officers and crew in problem solving and decision making during difficult and adverse conditions of operations? Do we have this learning and measuring instrument at all in the work place?

In ensuring we perform always at our best, consistently to the standards of competence expected of us in the STCW and beyond, we must address our state of literacy in the work place. How literate are we serving on ships? It's not just about reading, writing, and speaking the English lingua franca (ELF). Most people may only know of this literacy but it is insufficient to ensure that our best potential and employability is attained. There are multi-literacies presently in our industry. There are at least twenty types of literacies to master. I leave you with some thoughts on literacy and the skills associated with literacy.

Some key ones are:

Computer literacy, critical literacy, cultural literacy, ecological literacy, emotional literacy, financial literacy, information and media literacy. Are we trans-illiterate? Do we have skills to put all that together and cross boundaries effectively? How well placed and equipped are we to operate ships, the business and so on? More on this in the next issue(s).

By **Richard Teo FNI FCILT MAICD**
MM MSc MIM GDBus BTeach(Adult & Voc) DipQA TAE

For Editorial Committee

Members and their staff members are encouraged to submit their thoughts through authoring articles for publishing in our Newsletter. Articles should reach the Secretariat by the Friday of each month. Publication usually will be in the 3rd Friday of each month. GlobalMET reserves the right to reject any article that may be deemed inappropriate for the promotion and well-being of MET.

Welcome to the Cloud: An Introduction



Welcome to the Cloud: Cloud Computing Has Arrived

The title may be a bit misleading as Cloud Computing (CC) has been around for at least 10 years or more. Services like Amazon Web Services (AWS) e.g., have been doing it at least that long. However, for many of us, CC may be new. The use case for CC is simple; it will reduce/eliminate capital expenditures (CAPEX) for very expensive ICT infrastructure and personnel, shift these expenses to operational expenditures (OPEX), allow highly scalable and flexible ICT scenarios, provide highly secure ICT scenarios and allow a business to see the future in ways not possible before.

According to an article by Beauvais (2015) and TECHVERA,

- The average small company (less than \$50 million in revenue) spends 6.9% of their revenue on IT
- Mid-sized (between \$50 million – \$2 billion) spend 4.1%
- Larger companies (over \$2 billion) spend a relatively tiny 3.2%.

That's a lot of investment on ICT and hardware that also has an ever-increasing replacement cost, maintenance cost and associated risks.

With CC, there is lots of savings, redundancy and also the ability to use Cloud Templates to create exact infrastructure duplicates, reliable and predictable virtual infrastructures in literally minutes at the click of a few buttons!

So, in this short article, I wanted to give one a glimpse into CC and how it can literally be an enabler for an improved business and sustainable model.

Cloud Computing is a technology that can significantly impact CAPEX, OPEX and the Business

When people talk about Cloud Computing (CC), it means different things to different people—depending on their stake in the organization—from not much at all to pretty much major; many tend to cringe and run quickly upon hearing the words “Cloud Computing,” don't run, keep reading please. Imagine how exciting and motivating it might be to think outside of the box on this issue? CC can make that possible because you can create scenarios, templates and such prior to deployment in the cloud. This was one huge CAPEX barrier, you can experiment without purchasing very expensive ICT equipment and personnel! This is also why CC has been called the democratization of ICT technology; it's now affordable to the masses as many organizations like Amazon, Google and Microsoft have created venues where one can experiment for a whole year for free with “micro-instances” or mini-servers. The monopoly of many of the vendors and businesses involved in this industry and their secrets are now exposed—it's not as hard as they make it out to be, especially with saved templates. One CC expert jokingly commented that the best template one has is one you “borrowed” from someone else.

Cloud Computing and Virtualization as Potential Game Changers

CC, at least for me, now is like Star Trek's mission to seek out “bold new worlds”. The cloud just means all the servers, stacks, racks, personnel and routers are not physically with you, i.e., they are virtual for you; and covers applications, platforms and infrastructure across organizational functions, processes and personnel. This involves CAPEX intensive scenarios where the virtualization of CAPEX into OPEX has very large potential to be game changers! Now that's exciting? And by virtualization, I mean it's virtual machine assets that not only acts like the real thing, it is essentially the real thing and better.

There's scalability and fast provisioning, see Figure 1; traditionally businesses and ICT must forecast business demand out into the strategic future, say 3-5 years or more, and may over or under provision ICT capacity which means spending more or less than they have to based on actual versus projected demand, thus having potentially grave consequences for the business. The cloud enables ubiquitous, on demand and instant fast scalability and provisioning—just throw reasonable forecast OPEX money at the problem with what you need—usually in minutes!

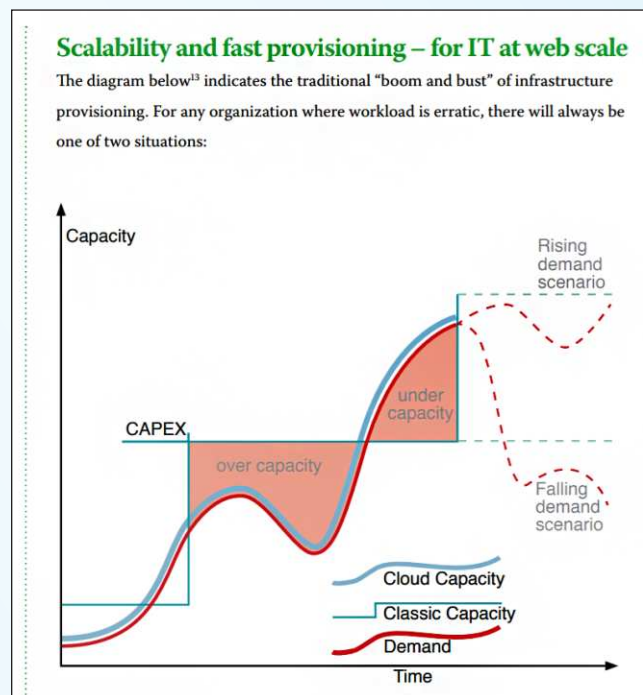


Figure 1- Scalability and Fast Provisioning – for IT at web scale2

1. Beauvais, Lauren. “How Much Should a Company Spend on IT? | Business Guide.” Techvera, 5 Feb. 2015, techvera.com/company-it-spend/. Accessed 4 Sept. 2017.

By **Iman Fiqrie@ William E Hamilton**
CPLP, MBA, B.S., A.A., ACB, CL
Lecturer

Casualties are Caused by Lack of Problem Solving Skills at the Work Place – A Need for an Authentic Instrument



Executive Summary

In recent times, we have had fatal casualties that included loss of an entire ship and crew due to heavy weather and collisions between two well found ships with several fatalities and serious injuries.

Surely in such modernity and sophisticated tools these casualties should never have occurred in the first instance and avoidable at the second instance. I will not venture into a third instance as two is already a critical number. Is there a need to have a third? Surely not.

Maritime Education and Training (MET) despite the ever important STCW convention continues to show gaping holes in the praxis of delivering courses of training and the assessment of performance outcomes in accordance with the standards. This is a very serious statement, that is ignored by many practitioners of MET. Are practitioners ignoring the requirement of delivering education and training in accordance with competency based education, training and assessments (CBETA) and outcomes based education (OBE)? It appears so if casualties of this nature continue to occur. CBETA and OBE are performance based and supported by evidence of attainment or accomplishment. Are we doing it?



Source: National Foundation Skills for Adults

Foundation Skills

The foundation skills are defined as follows:

- English language, literacy and numeracy (LLN) – listening, speaking, reading, writing, digital literacy and use of mathematical ideas; and
- employability skills, such as collaboration, problem solving, self-management, team work, initiative and enterprise, planning and organising, innovative disruptions and new technologies, learning and information and communication technology (ICT) skills required for participation in modern workplaces and contemporary life.

Fundamentally, in a modern society, foundation skills development includes both skills acquisition and the critical application of these skills in multiple environments for multiple purposes. Foundation skills are fundamental to participation in the workplace, the community and in adult education and training. These skills are critical in the Maritime industry as we operate in a high-risk environment in all-weather day and night.

Source: National Foundation Skills Strategy for Adults 2012

For this short article, I will discuss briefly the need to be professionally skilled in problem solving. For this purpose, I will deal with the development of the problem-solving instrument.

Development of the Problem-solving Instrument

The performance levels for solving problems are:

Level 1: Solves the problem by following established procedure

Tasks at this level typically require the respondent to make simple inferences, based on limited information stemming from a familiar context. Tasks in this level are rather concrete with a limited scope of reasoning. They require the respondent to make simple connections, without having to systematically check any constraints. The respondent has to draw direct consequences, based on the information given and on his/her previous knowledge about a familiar context.

Level 2: Solves the problem by selecting from several alternative established procedures

Tasks at this level often require the respondent to evaluate certain alternatives regarding well-defined, transparent, explicitly stated criteria. The reasoning however may be done step by step, in a linear process, without loops or backtracking. Successful problem solving may require the combination of information from different sources, e.g. from the question section and the information section of the test booklet.

Level 3: Creates a new procedure or adapts an existing procedure to meet the demands of the task

Some tasks at this level require the respondent to order several objects according to given criteria. Other tasks require the respondent to determine a sequence of actions/events or to construct a solution by taking non-transparent or multiple interdependent constraints into account. The reasoning process goes back and forth in a non-linear manner, requiring a good deal of self-regulation. At this level respondents often have to cope with multi-dimensional or ill-defined goals.

Level 4: Items in this level require the respondent to judge the completeness, consistency and/or dependency among multiple criteria. In many cases, the respondent has to explain how the solution was reached and why it is correct. The respondent has to reason from a meta-perspective, considering an entire system of problem solving states and possible solutions. Often the criteria and the goals have to be inferred from the given information before actually starting the solution process.

Source: National Foundation Skills Strategy for Adults

Understanding and practising Assessments

This is likely the most difficult area for MET educators and trainers who have not been professionally trained and found competent to conduct competency based assessments within the CBETA/OBE training process. Many consider written tests and some practicum as sufficient. Unfortunately, many rely on the written tests and spend very little time on the demonstrable outcomes of the training. Timely now to remember the 70-20-10 rule. To get onboard with CBETA and OBE, one must now contemplate burning your precious IMO model courses as none are really in this league. Note in particular, No. 6.09, probably the most outdated of the lot as mindsets remain in an almost totally knowledge based, non-adult, teacher-centred high school pedagogy.

The required Assessment is performance based (criterion referenced to published standards) with specific clear evidence to be collected, recorded and validated. These standards are not imagined and set by the teacher/trainer. These are industry standards that are published and mandated. I have witnessed professorial staff make up their own without reference to the STCW. Needless to say, the language is critical in the description of the outcome in direct relation to the standard of competence published.

Problem Solving Assessment Instrument

Briefly, the instrument will need to measure at the four levels, the following criteria:

1. Defining the problem
2. Planning an approach
3. Carrying out a plan
4. Monitoring progress
5. Reflecting on the result

For each of the above, relevant guides for measuring must be indicated to show achievement that satisfies the principal domains of learning in accordance with Blooms Taxonomy and performance level in accordance with SOLO taxonomy (Structure of Observed Learning Outcome)

Readers may email the author if you wish to discuss this topic further.

Conclusion

Like all assessment instruments or tools, Validation of the instrument is very important. All assessments for competence outcomes need to be monitored on a continuous basis to ensure currency and fairness. There is no secrecy in assessments and in fact the assessee must be properly informed and developed to meet the standards. The assessor is required to ensure the assessee is ready for assessment. Any secrecy or new knowledge or unknown methodology attached to tests and assessments is disallowed. You are not assessing the candidate on memory work but on his or her ability to perform to a particular criterion. i.e., standards of performance in accordance with required knowledge transferred by the master, teacher or facilitator. The contextualisation of the performance required must be clear and understood by the candidate.

It is recommended that institutions should include in their learning and assessment strategies, these standards of performance for Foundations skills. These skills need to be inculcated from cadet to captain/chief engineer. Technical skills are insufficient if not backed by foundation skills as these forms the employability skills for all officers and crew.

Further reading

Anderson, L. W. and Krathwol, D. R., et al (Eds.) (2001, 2013) *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon. Boston, MA (Pearson Education Group)

Biggs, J. B. and Collins, K. F. (1982) *Evaluating the Quality of Learning- the SOLO taxonomy*. NY Academic Press

By

Capt. Richard Teo, FNI FCILT MAICD
MSc MIM GDBus BEd TAE Reg Teacher MM Dip(QA)
Business and Education Proponent
Competency Based Education, Training & Assessments

Technical Highlight

Amazon Web Services: Global Cloud Computing

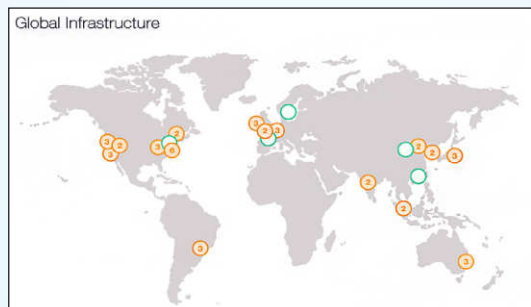
William E Hamilton@Iman Fiqrie

CPLP®, LCDR(USN, ret), MBA, B.S., A.A., ACB, CL

Cloud Computing has the worldwide advantage and capability of turning what has traditionally been a very large CAPEX expenditure, monopoly and inhibitor by corporations and individuals into an operational expense (OPEX) and available to the masses! This significantly increases CASHFLOW, PROSPECTS and SUSTAINABILITY. For ordinary individuals, it also means the democratization of ICT and a revolution whose time has come! We are no longer bound by **arcane** rules, policies, and constraints of traditional ICT.

Watch an Introduction to Cloud Computing to get started;
<https://www.youtube.com/watch?v=Fgk6Jn00s2k>
for more information, excitement and exploration

on CC visit Amazon Web Services, Google Cloud Platform or Microsoft Azures for trials, usage, free accounts and immediate engagement in CC and the future of your organization.



“Aluco”



After leave in New Zealand, in early 1961 I returned to Singapore via Sydney, where I joined a new Boeing 707. We landed briefly in Brisbane, then on to Darwin where we were delayed overnight in the Qantas Hostel due to an oil leak on the aircraft. After a tour of Darwin the following morning, we took off at noon. I recall the flight as most enjoyable. I had a window seat and spent much of the time to Singapore looking at the clouds and islands and reefs.

I stayed that night in Connell House and was told the next day to join Ninella, but the following day that was changed and I joined the 20,000 gt “Aluco” at Pulau Bukom as 3rd Mate, relieving the existing man who wasn’t well. She was a beautiful new ship, London based and carrying white oils, moored at Pulau Bukom. Three days later I said goodbye to Singapore and we sailed for Balikpapan, where we loaded 2,000 tonnes of vapoil for Brisbane, a pleasant nine-day voyage in sight of land practically all the way. As the first ‘all aft’ ship to visit, the media showed a lot of interest and I was assigned to show them around.

After discharging part of our cargo we left for Sydney where we pumped the rest ashore and back-loaded at Gore Bay for Geelong, in very hot weather. The ship was under Geelong’s control and during the next 16 days we carried cargoes between Geelong, Sydney, Brisbane and Hobart. Upon returning to Geelong we received orders to load a cargo of gas oil for Capetown, a 17 day voyage.

On 6 March, having had our orders changed to East London, we were off the port entrance at 0600, but were delayed entering on high water by the Union Castle liner “Pretoria Castle” and just had enough water to go in but grounded on rock while berthing. There were no signs of cargo leaking, so we assumed that any damage was minimal. We sailed for Port Elizabeth the next morning, where we took two hours to tie up with many wire and coir springs, because of the surge at the berth. During the night the cargo was discharged and early next morning we sailed for Capetown, where we found the bottom plating set up in several places but there was no sign of any leakage.

We had three days wait alongside a timber berth in Duncan Dock, during which I was ashore, except that I was unable to go to the top of Table Mountain because of orographic cloud and wind. On the Sunday we finished the discharge of the cargo and tank cleaned and gas freed the ship, so that the Lloyd’s and Government surveyors could inspect the damage. I accompanied them up and down all of the cargo

tanks. They agreed to a certificate of seaworthiness being issued and we ballasted throughout the night to be ready for sailing for Curacao early on Tuesday morning, a 16 day voyage during which we passed through seawater discoloured by the water of the Amazon.

They agreed the certificate of seaworthiness could continue, so we loaded a cargo of gas oil and sailed for Guyanilla in Puerto Rico, the same day on which we arrived in Curacao. On Easter Saturday we discharged and three of us went into Ponce, the second city on the island, on Sunday. We sailed again on Easter Monday, returned to Curacao, before proceeding to Cardon in Venezuela to load six grades of refined oil for Angola and the Belgian Congo, 15 days away.

We arrived in Luanda on 22 April, with orders to discharge all the avgas there and to load mogas for the port of Lobito. I went ashore and, while the waterfront was pleasantly developed, the rest of the city wasn’t. We listened to Beethoven’s 6th Symphony played through a speaker hung in a tree while we ate dinner in a restaurant on the waterfront.

Seven days later, after discharging in Lobito and finding little of interest in the small port and then proceeding north, we entered the mighty Congo River. Off Banana we passed an American ship embarking Sudanese troops and were buzzed by a French plane. The Belgian pilot boarded and we proceeded on a monotonous 50 mile trip through mangroves to anchor for the night off Boma. The deck lights became covered with insects. At 0600 next morning we weighed anchor and were at the discharge berth at Ango Ango three hours later.

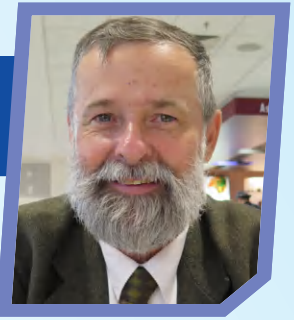
Having discharged JP4 for the military aircraft the following morning we proceeded upstream to Hell’s Cauldron, just below Matadi which is the extent of navigation for seagoing ships, where the pilot used a huge circulation in a bend in the river to turn the ship short round and then head downstream at almost 20 knots. We berthed at Pointe Noire at 1900 the same day, discharged the remaining cargo over-night and the next morning left for Curacao, a 13 day return voyage.

We again loaded a full cargo in Bullen Bay and Willemstadt and left again for the west coast of Africa, this time for Freetown and Abidjan. In Freetown I recall one of the apprentices running down the deck away from No.1 centre, where there had been a mighty clap of thunder just as he opened the hatch. Several of us went ashore and finished up in the Paramount, apparently the only decent spot in town. At Abidjan we discharged the remainder of the cargo, then headed back to the Caribbean where we loaded at Point Fortin in Trinidad and at Bullen Bay for Rotterdam and Shellhaven on the Thames estuary. On 3 July I signed off “Aluco”, perhaps the finest ship I’ve worked on, and went on leave for a week, before joining the crude oil carrier “Vibex” in North Shields.

By Rod Short

The Future of Maritime Education in Australia

A Discussion Paper



Continued from previous issue ...

Sea transport is not a local industry; the coastal voyages around Australia are longer than many international voyages around other parts of the world such as Asia and Europe. However, if the voyages start and finish in an Australian port and do not enter the jurisdiction of another nation then this interpretation will stand and compliance with STCW is met. However, if STCW adopts a definition that is in conflict with this Australian interpretation then the skills crisis facing the Australian industry may be greatly exacerbated, or Australia may find itself a pariah nation, not meeting its obligations under STCW. For individuals, they may find their certificates of competency not being recognised internationally.

Another critical issue affecting what paradigm gains dominance in Australia is the standard of trainers available. As the industry in Australia faces a looming skills crisis at sea there is also a looming skills crisis ashore. Market forces dictate high salaries for skills in demand and low salaries where there is no discrimination between sectors.

On the other side, the shortage of trained personnel in industry has resulted in continual approach to trainers to return to seagoing employment, often attracting significant (300%) increases in pay and conditions. This has resulted in both a reduction in the number and experience of trainers. TAFE, and probably other training providers, is seen as a recruiting opportunity for industry rather than its training arm, and therefore the lecturers we do attract and retain are here as a result of a strong vocational motivation, which is strained by alternative employment opportunity.

(Gray, 2008)

There is considerable concern that all of the Australian initiatives have been driven by economics and a preparedness to accept lower standards than those in STCW. (MUA 2008 Paragraph 5.2.75). This is particularly interesting given Australia's unique situation as an island continent nation where the majority of its sea transport task (in tonnes) is by sea on voyages of such duration that they would normally be considered by the drafters of STCW as falling in its prevail.

The Future

As STCW has evolved we have seen a greater emphasis on the acquisition of practical skills outside of the ship, off-the-job. This has been in part due to a decline in the opportunities for training to take place on-board. This decline in opportunities has been as a consequence of a reduction of qualifying service required by trainees, the demise of traditional company cadet schemes where there was a greater coordination of trainee learning opportunities and a reduction in the number berths available for trainees (Muirhead 2004 p142-143). However, despite this shift of emphasis for practical skills to be acquired off-the-job, the goal of maritime training remains to produce competent ship's crews capable of safely and efficiently operating ships and protecting the environment.

In addition to the shift of skill acquisition from on-the-job to off-the-job there has also been a lag between competencies being introduced and old competencies being phased out, and other core competencies appearing to lose some of their importance. New technologies have been incorporated into ships and are sometimes poorly understood because of a range of factors,

including training in the technology's scope and more importantly its limitations. Consequently, older more traditional systems have had their contribution degraded by a shift or over reliance in something that operators do not fully understand. Periodically we see calls in the sea transport sector for a return back to basics:

It is clear that something must be done to address the increase in the number of navigational incidents which have undoubtedly been the direct result of a reduction in standards of training and commensurate experience of the seafaring community'

(Hadnett 2008 p.16)

Quite clearly the call above from the pilotage operations manager of one of the busiest ports in the world, London; is not that of a Luddite seeking to discard the new machinery of the 21st Century. It is a call for appropriate training providing the student with:

- The skills to use the equipment (the doing – competency);
- the knowledge of its scope (what it can and more importantly what it cannot do); and
- the attitude that avoids over reliance on a single piece of technology or equipment.

STCW95 is being reviewed and there are many issues including how and what level training is provided, the physical location, etc. However, an un-investigated potential reason influencing a perceived need to review STCW95 may have been a move to 'up-front' training in the industry. Under this system the majority of the training is delivered to the student immediately prior to industry entry. There are problems for teachers such as the student possessing no underpinning experience to contextualise the learning; and for students, with cost borne by them rather than by the employer. There appears to be very little statistical information available to measure the success of up front training. The only mechanism would be to examine course enrolment to issue of certificates of competency as a Master or Class 1 Engineer or Certificate of Proficiency as an Integrated Rating. The skills crisis is here in Australia anecdotally the Maritime Skills Availability Study commented:

Numbers of trainees serving on Australian ships has progressively declined from an intake of 81 in 1993 to almost zero in 2000 & 2001

(Maritime Skills Availability Study 2002, 2.5.9)

Human factors training will gain a greater importance as we acknowledge that employment in the maritime sector is like other skilled professions such as aviation and medical practice are domains requiring expert performance. The 10-year rule essentially says that anyone seeking to perform at world-class level in any significant domain must engage in sustained, deliberate practice in the activity for a period of at least ten years (Ericsson 1996). This begs the question, if a practitioner has not practiced their profession for 10 or so years have they retained sufficient skill for expert performance? The options for Australia are already limited given the commitments by the Council of Australian Government decision to remove completely mandatory periods of qualifying sea service. If the reviewers of STCW find this incompatible with the direction that STCW is moving in then Australia may find itself an outsider nation without an indigenous sea transport sector. What voices dominate the direction Australia moves in will be interesting.

Conclusion

It is not difficult to see the strong influence that a complex regulatory environment has had in determining the predominant paradigm pervading maritime education and training in the sea transport sector. In the 'blue water' sector the predominant paradigm is behaviourist, although this is under review. The greater emphasis on the acquisition of practical skills off-the-job in STCW will place an increased load on maritime education and training providers. Providers will be faced with finding systems that will improve and expand the training presently provided within budgetary constraints. However, these pressures for change are often in addition to our extant delivery requirements.

The critical aspect that faces STCW and its evolution; is not what educational philosophy or paradigm is incorporated in its design but whether the maritime educators will be able to deliver what is expected of them. Education is not just the simple filling of an empty vessel, in a high reliability profession it is generating the appropriate attitude, a seamen's eye. Educators and regulators have to cognisant of the resource requirements needed by an educational paradigm before adopting it and must undertake to provide them. A skills shortage should not potentially result in a lowering or amending of standards, but may be the questioning on whether a standard is appropriate in changing circumstances.

The future for the Australian maritime industry sea transport sector is not clear. The option facing the policy makers are few, their choices limited by economic reality and availability of resources, the most important resource being human capital. A choice which is not consistent with the direction that the review of STCW takes may see Australia an outsider.

Bibliography

AMSA (2007) Australian Maritime Safety Authority 17th Annual Report 2006/2007 (http://www.amsa.gov.au/About_AMSA/Corporate_information/Annual_reports/2006-2007/index.asp) viewed 08/05/08

AMSA (2016) Australian Maritime Safety Authority National System for Domestic Commercial Vessel Safety (Streamlining Review) (<https://www.amsa.gov.au/forms-and-publications/domestic/publications/documents/streamlining-concepts-table.pdf>) viewed 22/05/17

Australian Institute of Marine and Power Engineers (AMPIE) 2008, Submission to House Representatives Standing Committee on Infrastructure Transport Regional Development and Local Government Inquiry into Australian Coastal Shipping, Submission 35 (<http://www.aph.gov.au/house/committee/itrdlg/coastalshipping/subs/sub35.pdf>) viewed 18/05/08

Boud, D (1987) 'A Facilitators View of Adult Learning' in D Boud & V Griffin, *Appreciating Adult Learning*, Kogan Page, London

Dikkenburg, J, (2005) Training for the maritime Industry (http://www.nmsc.gov.au/documents/Dikkenberg_John.pdf) viewed 09/05/08

Ericsson, K. A. (1996a). The acquisition to expert performance: An introduction to some of the issues. In K. A. Ericsson (Ed.), *The road to excellence: The acquisition of expert performance in the arts and sciences, sports and games* (pp. 1-50). Mahwah, NJ: Lawrence Erlbaum Associates

Foley, G (2004) 'Introduction: the state of adult education and learning' *Dimensions of Adult Learning*, Allen and Unwin, Sydney p.3-18

Gray, Robin (2008) Submission to the Coastal Shipping Policy and Regulation Enquiry, No. 17 (<http://www.aph.gov.au/house/committee/itrdlg/coastalshipping/subs/sub17.pdf>) viewed 12/05/08

Hager, Paul (1995) Lifelong Education: An Idea Come Of Age?, University of Technology, Sydney - Paper presented at the AARE

Annual Conference, Hobart November 1995 (<http://www.aare.edu.au/95pap/hagep95198.txt>) viewed 08/05/08

Hadnett, E, A bridge too far, the need to return to basics; *Seaways*, the International Journal of the Nautical Institute, January 2008 p13-16.

Hatch, Teresa (Director – Maritime Operations Division, Australian Shipowners Association) Securing Maritime Skills into the Future, Natship Conference 2007 (<http://www.amsa.gov.au/natship2007/documents/ConfProceedings/PPT%20-%20HATCH,%20Teresa.pdf>) viewed 08/05/08

Hirst P. (1993) 'Education, Knowledge and Practices' in R. Barrow and P. White (eds.) *Beyond Liberal Education: Essays in Honour of Paul H, Hirst*. London/New York: Routledge.

House Standing Committee on Infrastructure, Transport, Regional Development and Local Government, Inquiry into Coastal shipping policy and regulation (<http://www.aph.gov.au/house/committee/itrdlg/coastalshipping/tor.htm>) viewed 08/05/08

International Shipping and World Trade – Facts and Figures Oct 2007 (http://www.imo.org/includes/blastData.asp/doc_id=8540/International%20Shipping%202007.pdf) accessed 12/05/08

Lewarn, B, STCW Review, Challenges for maritime educators and trainers, *Seaways*, the International Journal of the Nautical Institute, February 2008, p.24-25.

Marine Order Part 3 – Seagoing Qualifications (MO Pt3) issue 6 (<http://www.frl.gov.au/comlaw/Legislation/LegislativeInstrumentCompilation1.nsf/0/12AEC348690BCFFCCA2573A30018625B?OpenDocument>) viewed 12/05/08

Mahapatra, Ashok, (Head, Maritime Training and Human Element Section Maritime Safety Division IMO) STCW Review - Presentation by delivered at the ISF Manning and Training Conference 2007, held in London on 12 September 2007 (http://www.imo.org/includes/blastDataOnly.asp/data_id%3D19851/STCWReview.pdf) viewed 12/05/08

Maritime Skills Availability Study (MSAS), AMSA (http://www.amsa.gov.au/Publications/Shipping/Maritime_skills_availability_study.pdf) viewed 08/05/08

Maritime Union of Australia (2008) Submission to the Coastal Shipping Policy and Regulation Enquiry, No. 45 (<http://www.aph.gov.au/house/committee/itrdlg/coastalshipping/subs/sub45.pdf>) viewed 12/05/08

Merriam S, Caffarella R and Baumgartner I (2007) experience and Learning, chapter 7 in *Learning in Adulthood a comprehensive guide* (Third Edition) Jossey Bass, San Francisco.

Muirhead, Peter M P, (2004) The New Technology and Maritime Training in the 21st Century: Implications and Solutions for MET Institutions, *WMU Journal of Maritime Affairs* 2004, Vol 3, No. 2

National Maritime Safety Committee, Supplementary Discussion Paper (2), For Public Comment, National Standard For Commercial Vessels -Part D – Crewing Competencies; Working Group Reviewing Training & Assessment Strategies; Released 29th October 2007 (http://www.nmsc.gov.au/documents/Issues%20Paper/NSCV%20Review%20of%20Part%20D%20-%20Crew%20Competencies/2_Supplementary_Paper.pdf) viewed 12/05/08

West of England P&I Club (October 1996) STCW Convention, The 1995 Amendments to the STCW Convention (STCW 95), [http://www.westpandi.com/WestPandi/LossPrevention/Bulletins/The+1995+Amendments+to+the+STCW+Convention+\(STCW+95\).htm](http://www.westpandi.com/WestPandi/LossPrevention/Bulletins/The+1995+Amendments+to+the+STCW+Convention+(STCW+95).htm) accessed 08/05/08

Zinn, L (1990) 'Identifying Your Philosophical Orientation. In ed Golbraith, *Adult Learning Methods*, Kreiger, Florida, p. 39-77

By

Capt. Ian Gray
Lecturer at Newcastle TAFE

Going to Sea and Being Prepared for Life



When you go to sea, you will be prepared for life! And I cannot think of any other group of professionals, including astronauts, who can match the spread and depth of preparation that seafarers get.

At sea, the seafarer is the person on the spot to ensure that all systems work. For a cargo ship, the systems include propulsion, power generation, fuel supply, air supply, hydraulic power, cooling and lubrication, steering, navigation, communications, cargo handling and firefighting. Other than the handful of fellow seafarers on board, he does not have others on hand to turn to for help should anything fail. And should a system fail, the seafarer has to use and improvise with whatever he/she can muster to get the ship moving again and complete its journey. In such situations, what is learnt in the classroom or ashore suddenly become very much alive. What is forgotten or not learnt has to be learnt or discovered in double quick time!

As a result, most seafarers become fast learners of how things work and what's important. They acquire the skill of being able to assess any situation quickly and decide on the best course of action. And if one action fails, they will not hesitate to try another. Thus, they become decisive and practical people. The saying, "If the ship does not move, you move!" will be well driven home to the seafarer who encounters his first "problem" at sea.

Many landlubbers often forget that a community of between 20 to 35 persons, mostly men and between 20 and 70-year-old men a ship. They need to eat, sleep, socialise, relax and live. The ship is a floating island and has to cater to all these needs. Most seafarers end up good cooks and entertainers! They are also experts with life-support systems – food preservation, fresh water generation, plumbing, sewage removal and air

conditioning. You have to get along well with others for long periods and in close quarters. If not, survival needs will make you fast learners of how to "read" people. You will acquire high EQ - emotional intelligence unless you choose to be a loner.

Thus, over time, a seafarer becomes an all-purpose professional. The marine engineer will be good at nearly all flavours of engineering – mechanical, electrical, electronics, hydraulics, pneumatics and communications. The deck officer becomes good leaders. For all seafarers, they should be consulted on safety and would be valued for their teamwork and people skills.

Most landlubbers know that a cargo ship carries cargo from one port to another. They would take for granted that the ship will deliver the cargo over long distances to arrive at their destinations safely and on time. And they could because most ships do despite the odds against the sea and Murphy's Law. Odds that are overcome by a team of resourceful professionals!

And when the seafarer finally comes ashore, he will be sought after. The enlightened knows that the seafarer had been prepared for life – technically through his daily work, socially through having to work and live interdependently with others in tight situations and humanly after having seen the World and experienced its diverse needs, cultures and values.

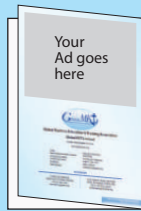
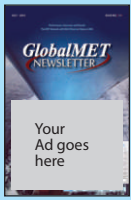
It is a very smart move to go to sea!

By

Cheng Huang Leng

Marine Engineering Senior Lecturer, Mentor & Sage.
Former Vice Principal Singapore Polytechnic

Advertise in the GlobalMET Newsletter & General Memos



Half front or
back page
\$ 750



Full inside
page
\$ 500



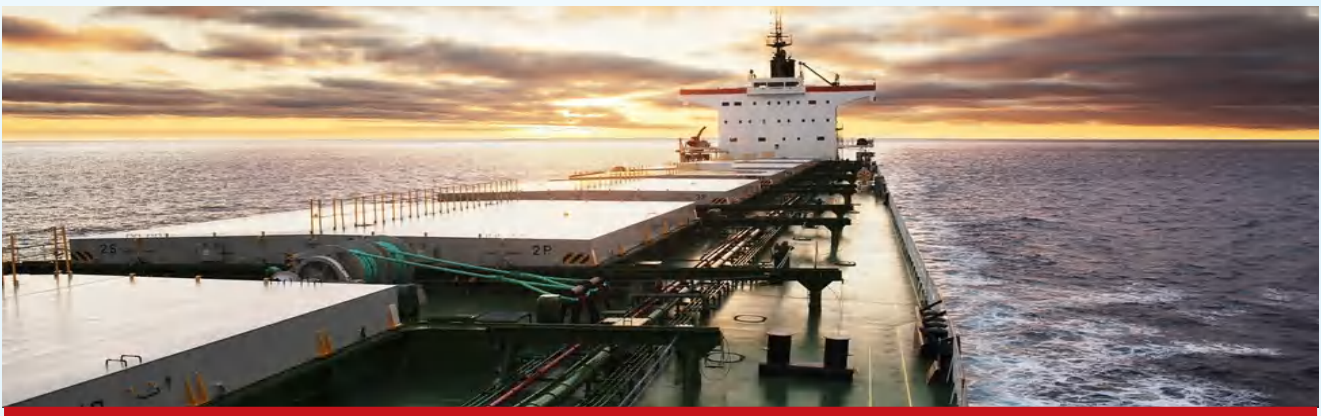
Half inside
page
\$ 250

GlobalMET Newsletter
is widely circulated.

Visit: <http://globalmet.org/>
for complete membership list.

Contact:
secretariat@globalmet.org

SPECIAL 50% DISCOUNT FOR GlobalMET MEMBERS



Global Maritime Education & Training Association

GlobalMET Limited

Australian Company Number 103 233 754

www.globalmet.org

Chair:
Capt Pradeep Chawla
Anglo-Eastern Univan Ship Management
23/F, 248 Queen's Road East
Wanchai, Hong Kong

Executive Secretary:
Capt Richard Dunham
PO Box 8042, Trevallyn
Tasmania 7250, Australia
rcdunham@gmail.com

Secretariat

1070 Tower B1 Spaze I-Tech Prak
Sector 49 Gurugram 122002 India
Tel 91 124 45525 56/57
secretariat@globalmet.org