



# A Study on Foreign Students' Living and Training Conditions in the Training Ships

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## 실습선 외국인학생 생활과 훈련 환경에 관한 연구

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### Abstract

The study performs a questionnaire survey of foreign maritime students who trained onboard the Mokpo National Maritime University training ships to determine the level of satisfaction on their living and training conditions. It covers the period from 2014-2016 with 21 respondents from four different nationalities. The questionnaire covers three main topics with different sets of questions: Personal life, Social life and Technical training conditions. 58% were fairly satisfied in their personal lives while 49% found their social life satisfactory. In the technical training conditions, 61% rated them very adequate. The English-language mode of teaching noticeably garnered the sole dissatisfaction overall at 57%. In the analysis, the study focuses on the “less adequate” responses because it is the ultimate aim of this study: to improve the living and training conditions of foreign students. It calculates the relationships between the three topics-variables and found that the satisfaction levels of foreign students are not affected by their conditions onboard. The results show that they are mostly moderately to slightly related. The training and social life has very negligible relationship.

**Key words :** Training ship, STCW, Campus life, Technical training, Personal life, Questionnaire survey

## I . Introduction

Mokpo National Maritime University has two training ships for the training of merchant and naval students. The training ships are used for on-the-job training and safety education in accordance with STCW (as amended) Regulations. Professors, instructors, officers and crews are onboard T/S Sae Yudal and T/S Sae Nuri to teach and train future maritime professionals. These

training ships visit the major harbors and sail around Korean coasts, and also call on major harbors in the region- East and Southeast Asian countries. The training ships likewise trains maritime students from other countries in the region: China, Taiwan, Vietnam and the Philippines.

The particulars of the two training ships are shown in <Table 1>. The data are for the 1<sup>st</sup> semester of SY 2016.

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<Table 1> Particulars of Training Ships

	Sae Yudal		Sae Nuri	
Year Built	1993		2003	
GRT	3644		4701	
Complement	Plan	Actual	Plan	Actual
Officers	12	9	10	9
Crew	27	13	16	14
Professors*	5	7*	6	7*
Instructors	6	2	10	2
Cadets (Male)	120	98	146	97
Cadets (Female)	32	15	18	14
Total Korean Cadets	152	113	164	111
Others (Foreign Students)		2	2	3
Grand Total	202	115	208	114

\*Masters and Chief Engineers of both training ships are also included in the Faculty of Professors

Source: Training Ships “Sae Yudal” and “Sae Nuri” file for SY 2016 2<sup>nd</sup> Semester

### 1.1 Background of the Study

Aside from the Korean maritime students, the university training ships host foreign maritime students onboard since 2006 (Philippine Merchant Marine Academy) (PH) and 2011 from Shanghai Maritime University (CN). Last school year (SY 2016), it has accepted four cadets from Maritime Academy of Asia and Pacific (MAAP), another maritime institution in the Philippines, National Kaohsiung Maritime University (TW) and Vietnam Maritime University (VN). They stayed in varying periods: PMMA cadets for one (1) year training while the rest, MAAP, SMU, NKMU, VMU cadets, attended only for one term, 6 months and 3 months only. Since the inception of this program, there are a total of 68 foreign students who had trained onboard the training ships.

There was a preliminary study of foreign cadets who served onboard the university training ships, Dimailig et al. (2014) and dealt only with former PMMA cadets. The topic was about the effects of their training on their professional lives where most of the participants of the survey declared beneficial their training at MMU. There are no other studies on any topic recorded about the foreign students training onboard.

<Table 2> Summary of foreign students trained onboard the training ships, 2006-2016

Major (Dept) Period (Year) Nationalities	Navigation				Marine Engineering			
	PH	CN	TW	VN	PH	CN	TW	VN
2006/07	0				3			
2007/08	0				3			
2008/09	3				1			
2009/10	1				2			
2010/11	2				2			
2011/12	2	1			2	1		
2012/13	2	4			2	0		
2013/14	2	4			2	2		
2014/15	2	3			2	1		
2015/16	2	5			2	1		
2016(2 <sup>nd</sup> sem)	2		3	0	2		0	2
Total	18	17	3		23	5		2
Grand Total	68							

Source: MMU, International Relation Office data of SY 2016 2<sup>nd</sup> Semester.

<Table 2> tabulates the yearly and each department breakdown of foreign students onboard the training ships since its inception on 2006 until the SY 2016 2<sup>nd</sup> semester.

### 1.2 Purpose of the Study

This study aims to improve the living and training condition of foreign students while onboard

the training ships. It focuses on the foreign students' areas of concerns because these shall be the basis for improvement. This would be a preparatory study and in-line with the current thrust of the university to expand the number of foreign students onboard the two university training ships.

### 1.3 Methodology of Research

This study conducted a questionnaire survey of foreign students who had undergone shipboard training onboard the two university training ships. It covers only the students from SY2014-SY2016. It constructed sets of questions grouped into three (3) main topics. The topics are about 'Personal Life Onboard'; 'Social Life' during their stay in the campus; and the 'Technical Training' skills and competency they acquired. Other sub-topics are also asked like their English-speaking proficiency and others. The respondents were also requested to give their objective opinions about the topics asked and other topics that they may wish to share. These comments were edited here for space and clarity.

The information gathered therefrom were graphed, tabulated and analyzed. It uses the non-parametric inferential statistics, chi-square ( $\chi^2$ ) goodness-of-fit test and the Pearson-product correlation coefficient to describe the strength of relationship between the variables.

## II . The Survey Results

The survey questionnaire covers the school year periods of 2014/15 and 2015/16. There were four nationalities-respondents to the questionnaires: Philippines (PMMA and MAAP), China (Shanghai Maritime University), Taiwan (National Kaohsiung Maritime University), and Vietnam (Vietnam

Maritime University) with the total of twenty-one (21) respondents. Three (3) of the respondents were invited and responded by e-mails while the rest (18) were asked and answered while still staying onboard at the later part of their training before they returned to their respective countries.

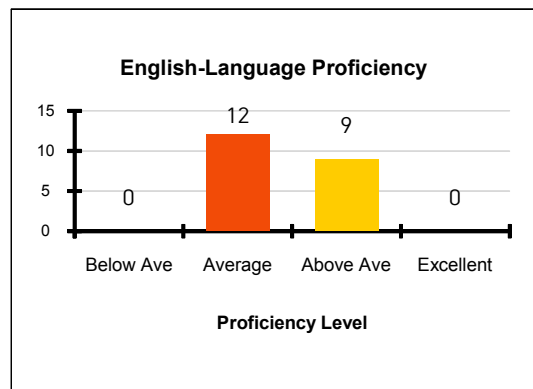
The respondents duration of stay onboard the training ships was tabulated in <Table 3>.

<Table 3> Duration of Stay Onboard Training Ship

Months (m)	Number
3.0m	5
3.3m	6
6.0m	3
12.1m	7

### 2.1 English Language Proficiency

The respondents were asked about their English speaking ability weighted by "Below Average", "Average", "Above Average" and "Excellent" The question was included because the university recognizes the importance of speaking in the universal language.



[Fig. 1] English-Language Proficiency

[Fig. 1] shows that 57% (12) of the foreign students classified themselves as average while 43% (9) as above-average. They admitted that it is a requirement for inclusion in their overseas program before they are sent to MMU.

The succeeding sections, 2.2-2.4, deal with each cadet’s objective assessments of their experiences during their respective stays onboard the training ships. There are sets of questions on each three main topics. To evaluate and analyze the responses according to their level of satisfaction and/or adequacy, each is ranked with their nominal weights shown in <Table 4>.

<Table 4> Assigned ranks to each nominal weight

Rank	Nominal Weight
<b>A</b>	Very adequate / Very satisfactory
<b>B</b>	Fairly adequate / Fairly satisfactory
<b>C</b>	Less adequate / Less satisfactory
<b>D</b>	No Opinion / No Comment

## 2.2 Personal life onboard

There are seven (7) questions asked in this topic and “other” for the respondents to freely give their personal observation. <Table 5> includes the ‘un-edited’ responses of the respondents shown in the “Remarks” column. This section deals with their personal day-to-day life onboard. The study selected the seven (7) personal life topics that would have the greatest impact to an alien’s daily life onboard when separated from his/her native land.

[Fig. 2] graphs the responses to the questions about their personal life onboard. As stated in Section 1.2, the purpose of the study is to pin-point the weak points, hence, the emphasis shall

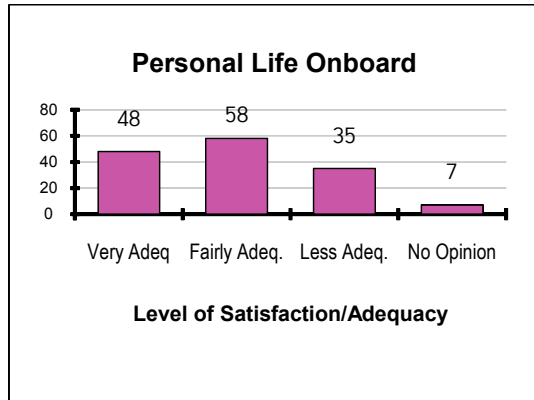
be the “Less Adequate” column.

<Table 5> Personal Life Onboard

Items	A	B	C	D	Remarks
Living accommodation and personal hygiene space	8	8	3	2	Perfect facilities
Handling of change of culture; weather conditions; language differences; etc.	2	12	7	0	No language basic, hard(sic) talking Only language
Means of communicating with family and friends back home	11	5	4	1	Just Apple and Samsung can get simcard
Treatment of Korean fellow students onboard	9	9	2	1	Out of friendship without obligations They are friendly to Filipino students
Treatment of Foreign students other than Korean.	8	7	5	1	They are not so friendly
Treatment of Officers and Crews onboard	8	10	1	2	Very kind Officers Instructor more severe They talk less to use maybe because of the language
System and procedure of handling/dealing with your concerns or problems	2	7	12	0	We had two (2) Filipino Professors that were approachable Still don’t know the relationship between the school authorities
(Others) Meal			1		Not use to kimchi and raw meal
<b>Total</b>	<b>48</b>	<b>58</b>	<b>35</b>	<b>7</b>	

Based on <Table 5>, the weakest points were the 1) “System and procedure of handling/dealing with your concerns or problems” (12 responses), 2)

Handling of change of culture; weather conditions; language differences; etc.” (7 responses) and 3) “Treatment of foreign students other than Koreans” (5 responses). There were four (4) responses who have no opinion and 35 responses (24%) were dissatisfied (Less Adeq.).



[Fig. 2] Summary of Personal Life Onboard

### 2.3 Campus Social Life

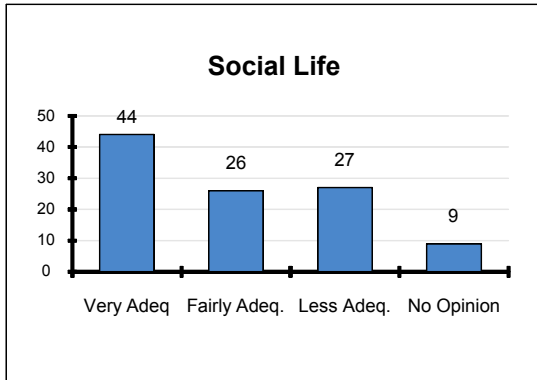
This topic deals with the foreign students' public life around the campus. Although the students were billeted onboard the training ships, they were allowed, ship's rules considering, to roam around the university grounds. There are also university-training ships' activities, like athletics, official tours, library visits, among others, that they can avail during their stay.

<Table 6> lists the questions pertaining to the students' campus life. It shows that most foreign students were unaware of the university's social activities for foreign students, 9. Six responses for each: "Treatment of other Korean students around the campus" and "Treatment of non-Korean students around the campus"

<Table 6> Campus Social Life

Items	A	B	C	D	Remarks
How is your movement around the University campus?	10	6	4	1	It seems like so many rules and I never visited other places
Treatment of other Korean students around the campus	7	6	6	2	Don't know something about this Sometime don't want to play with me
Treatment of non-Korean students around the campus	12	1	6	2	
University social activities for foreign students.	7	4	9	1	Just meeting once at the beginning Never heard about this
Personal tours and travels outside the university campus.	7	9	2	3	They allowed us to travel outside as long as we ask permission Nice country
(Others) Time Availability	1				Restricted
Total	44	26	27	9	

[Fig. 3] presents the total outcome of the social life. Twenty-seven (21%) responses were "Less Adeq." However, 44 responds (49%) that overall were "Very Adeq." of their social life around the campus.



[Fig. 3] Summary of Students' Social Life

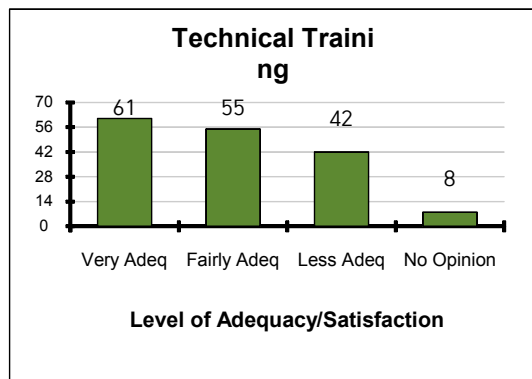
### 2.4 Technical Training Onboard

This section deals with training onboard: the theoretical and the practical aspects of training. <Table 7> shows the questions, the responses and the respondents' remarks. The <Table 7> shows that "Language mode of teaching" garnered the sole dissatisfaction, 57% at 12 responses. 52% were fairly satisfied (11 responses) on "Scheduled hours of training/classroom instruction" It means that they prefer a less classroom-based instructions. The remarks on this topic are most revealing and are mostly self-explanatory.

<Table 7> Technical Training

Items	A	B	C	D	Remarks
Onboard learning / training facilities, equipment	12	3	6	0	
Onboard study / training hours outside the ship schedule	6	9	2	4	Learn a lot in duty time
Scheduled hours of training/class	6	11	4	0	They don't consume the time

room instruction					
Language mode of teaching	1	6	12	2	Most of classes are thought by Korean, its hard to understand I don't understand Hanguel Just Maritime English course have English At least one (1) class by Philippine Professor
Equipment used in training activities	8	7	4	1	
Practical / Actual training of maritime subjects	6	9	5	1	
Treatment of Professor / Instructors onboard	9	6	6	0	A little displeasure
Professors and teachers skills and qualification	13	4	3	0	I think they teach well, its just that I don't understand them
Total	61	55	42	8	



[Fig. 4] Summary of Technical Training Onboard

[Fig. 4] graphs the number of responses per level of satisfaction and/or adequacy and it shows that majority are very satisfied on the over-all adequacy of technical training onboard.

### 2.5 Miscellaneous

<Table 8> Other topics / questions asked

Question: As of this period of your training onboard, how would you rate the following:					
Items	A	B	C	D	Remarks
English language usage onboard	1	4	10	0	It is better to practice speaking English more They seldom use English
Overall training/learning acquired of maritime subjects	5	5	5	2	
Give specific training/learning you appreciate the most:					
Practical Operation	3	3	1	1	Got a lot of essential skill
Mooring	2				
Radar			1		
ECDIS			1		
Abandon-ship drill	1				
Safety Drills. Engine demos. Engine works		3			

The “Miscellaneous” section gives the respondents a space for any additional topics they experience and/or learned during their stay. It is noteworthy to mention that they commented on the English-language inadequacy (column C, 10). In the over-all training, 5 responses on each “A”, “B” and “C” satisfaction rating.

### III. Statistical Analysis Results

The study focuses on the satisfaction level of the students in relation with their life and training conditions onboard. “Are the cadets satisfied with their life and training while onboard?” It tests whether the null hypothesis: the conditions onboard has no effect on the satisfaction of the cadets. Gathering the results of the main topics, Sections 2.2-2.4, the study applies the Chi-square ( $\chi^2$ ) Goodness-of-Fit test due to its non-parametric (categorical) nature.

Chi-Squared ( $\chi^2$ ) Goodness-of-Fit formula:

$$\chi^2 = \frac{(Obs - Exp)^2}{Exp}$$

if  $\chi^2 (obt) > \chi^2 (cv) =$  Reject the NULL Hypothesis  
 if  $\chi^2 (obt) < \chi^2 (cv) =$  Accept the NULL Hypothesis

<Table 9> tabulates the satisfaction levels and the conditions onboard of the cadets in a 3 x 3 format.

<Table 9> Satisfaction level / Conditions onboard

Satisfaction Level	Conditions Onboard			Sum
	Person al Life	Social Life	Technical Training	
Very Satisfied	48	44	61	153
Fairly Satisfied	58	26	55	139
Less Satisfied	35	27	42	104
Sum	141	97	158	396

The expected frequencies were calculated according to the following formula, example:

$$48_{(Obs)} = \frac{(141)(153)}{396} = 54.477 (Exp)$$

<Table 10> Calculation of  $\chi^2$  Goodness-of-Fit

Obs	Exp	Obs - Exp	(O-E) <sup>2</sup>	$\chi^2$ Calc
48	54.477	-6.477	41.955	0.7701
58	49.492	8.508	72.379	1.4624
35	37.030	-2.030	4.122	0.1113
44	37.477	6.523	42.546	1.1352
26	34.048	-8.048	64.770	1.9023
27	25.475	1.525	2.326	0.0913
61	61.045	-0.045	0.002	0.0000
55	55.460	-0.460	0.211	0.0038
42	41.495	0.505	0.255	0.0061
396	396	0.0		4.7126

$$df = (R-1)(C-1) = (3-1)(3-1)$$

$$df = 4$$

$$\alpha = 0.05$$

$$\chi^2_{(cv)(.01)(11)} = 9.488 \text{ and } \chi^2_{(obs)} = 4.713$$

Using the chi-square test, the computed value (4.713) is much less than the critical value (9.488) at df of 4, and at 5% level of significance. This means that the satisfaction levels of the foreign cadets are not affected by their conditions onboard. They are not significantly related.

Establishing the relationships among the variable, personal life, social life and training, this study uses the Pearson-product correlation coefficient of three variables. To calculate the correlations between the multivariates, the paper utilizes only the number of responses in the “Very Satisfactory/Very Adequate” column to all the subjects covered in each variables shown in <Table 11>.

<Table 11> Partial correlation of three variables by Pearson-product Correlation Coefficient

No.	Personal Life	Social Life	Train						
	A	B	C	A2	B2	C2	AB	AC	BC
1	0	3	0	0	9	0	0	0	0
2	2	1	0	4	1	0	2	0	0
3	2	3	7	4	9	49	6	14	21
4	3	1	3	9	1	9	3	9	3
5	3	3	6	9	9	36	9	18	18
6	4	4	4	16	16	16	16	16	16
7	6	2	7	36	4	49	12	42	14
8	0	0	0	0	0	0	0	0	0
9	1	3	2	1	9	4	3	2	6
10	0	0	0	0	0	0	0	0	0
11	3	5	2	9	25	4	15	6	10
12	3	5	3	9	25	9	15	9	15
13	4	3	7	16	9	49	12	28	21
14	1	0	3	1	0	9	0	3	0
15	5	3	7	25	9	49	15	35	21
16	5	4	5	25	16	25	20	25	20
17	0	0	0	0	0	0	0	0	0
18	3	2	0	9	4	0	6	0	0
19	0	0	0	0	0	0	0	0	0
20	4	2	2	16	4	4	8	8	4
21	0	0	1	0	0	1	0	0	0
Tot	49	44	59	189	150	313	142	215	169

Calculation of partial relationship between multivariates.

A. Relationship between 2 variables:

1. Personal life (A) and Social Life (B)

$$r_{AB} = \frac{N\sum AB - (\sum A)(\sum B)}{\sqrt{[N\sum A^2 - (\sum A)^2][N\sum B^2 - (\sum B)^2]}}$$

$$r_{AB} = \frac{21(142) - (49)(44)}{\sqrt{[21(189) - (49)^2][21(150) - (44)^2]}}$$



$$r_{AB} = 0.60 \text{ (Moderate correlation)}$$

$$r_{AC.B} = \frac{0.738 - (0.60)(0.492)}{\sqrt{(1 - 0.60^2)(1 - 0.492^2)}}$$

2. Personal life (A) and Training (C)

$$r_{AC} = \frac{N\sum AC - (\sum A)(\sum C)}{\sqrt{[N\sum A^2 - (\sum A)^2][N\sum C^2 - (\sum C)^2]}}$$

$$r_{AB.C} = 0.636 \text{ (Moderate relationship)}$$

$$r_{AC} = \frac{21(215) - (49)(59)}{\sqrt{[21(189) - (49)^2][21(313) - (59)^2]}}$$

6. Training and Social life (Personal life is fixed)

$$r_{BC.A} = \frac{r_{BC} - r_{AB} r_{AC}}{\sqrt{(1 - r_{AB}^2)(1 - r_{AC}^2)}}$$

$$r_{AC} = 0.738 \text{ (High relationship)}$$

$$r_{BC.A} = \frac{0.492 - (0.60)(0.738)}{\sqrt{(1 - 0.60^2)(1 - 0.738^2)}}$$

3. Social life (B) and Training (C)

$$r_{BC} = \frac{N\sum BC - (\sum B)(\sum C)}{\sqrt{[N\sum B^2 - (\sum B)^2][N\sum C^2 - (\sum C)^2]}}$$

$$r_{AB.C} = 0.066 \text{ (Negligible relationship)}$$

$$r_{BC} = \frac{21(169) - (44)(59)}{\sqrt{[21(150) - (44)^2][21(313) - (59)^2]}}$$

$$r_{AC} = 0.492 \text{ (Moderate relationship)}$$

B. Partial relationship between 2 variables when 1 variable is fixed:

4. Personal life and Social life (Training is fixed)

$$r_{AB.C} = \frac{r_{AB} - r_{AC} r_{BC}}{\sqrt{(1 - r_{AC}^2)(1 - r_{BC}^2)}}$$

$$r_{AB.C} = \frac{0.60 - (0.738)(0.492)}{\sqrt{(1 - 0.738^2)(1 - 0.492^2)}}$$

$$r_{AB.C} = 0.403 \text{ (Low or Slight relationship)}$$

5. Personal life and Training (Social life is fixed)

$$r_{AC.B} = \frac{r_{AC} - r_{AB} r_{BC}}{\sqrt{(1 - r_{AB}^2)(1 - r_{BC}^2)}}$$

<Table 12> Summary of results of partial relationship between multivariates

No.	Correlations	r-value	Associations
1	Between Personal Life (A) and Social Life (B)	0.60	Moderate
2	Between Personal Life (A) and Training (C)	0.738	High
3	Between Social life (B) and Training (C)	0.492	Moderate
4	Between Personal life and Social life (Training is fixed)	0.403	Low
5	Between Personal life and Training (Social life is fixed)	0.636	Moderate
6	Between Training and Social life (Personal life is fixed)	0.066	Negligible

### IV. Conclusion

The foreign students rate their English-language proficiency as "Above Average" and "Average". Personal life onboard: 58% were fairly satisfied, 48% very adequate and 35% saw their life onboard as less adequate. Social Campus Life: 49% (44)

overall were satisfied while 21% (27) were less satisfied. 26 responded with fairly adequate living condition. Technical Training: the theoretical and the practical aspects of training overall has 61 responses as very adequate, 55 fairly adequate, and 42 less satisfied. In the particular question, “Language mode of teaching” garnered the sole dissatisfaction, 57% at 12 responses. 52% were fairly satisfied (11 responses) on “Scheduled hours of training/classroom instruction” This means that they prefer a less classroom-based instructions. In the “Miscellaneous” section the English-language inadequacy garnered the highest responses, (10). In the over-all training, equal responses, 5 each, were given on very satisfied, fairly satisfied and less satisfied satisfaction rating.

In the analysis, the satisfaction levels of the foreign cadets are not affected by their conditions onboard. They are not significantly related. The relationship between “Personal life” and “Social Life”, is moderately related. Personal life and Training has high relationship. Social life and Training has moderately related. Personal life and Social life (Training is fixed) slightly related. Personal life and Training (Social life is fixed) has moderate correlation and Training and Social life (Personal life is fixed) has very negligible relationship.

This study recommends that a more holistic and enthusiastic emphasis on the English language inadequacy be addressed whether in academic or social life onboard. The setting up of proper grievance unit where the students can air their concerns or grievances freely and objectively without fear is also recommended. It further proposes:

1. Providing a dedicated LIBRARY that contains the materials in English language like Culture

and Life of the different countries in the region; wholesome movies: animated, drama, social or historical stories, etc. – that do not tackle on historical, ethnic, religious and cultural sensibilities; and collecting and/or subscribing to English maritime magazines (e.g. “Seaways magazine of The Nautical Institute” Society, etc, and/or other Engineering and Naval magazines) and/or other reading materials conducive to motivate students to read (Site-seeing, culinary, food, etc. that will spark their interests and other passions).

2. Conduct INTER-CULTURAL activities like games, shows and contests that focus also on other cultures.
3. Establishing “LANGUAGE-SCHOOL” onboard. This can be pursued in a non-formal setting and instructional methods to ease awkwardness among students and promote friendly ambiance by students themselves with supervision by the Professors and Staff.
4. Revising the onboard curriculum to include English language in its instructions.
5. Enhance the English-language usage either by PA announcement or bulletins of everyday routine activities and important information concerning (affecting) student’s life onboard.

The paper tackles the weaknesses in the condition of foreign students life and training with the aim to improve and develop a more conducive training conditions onboard the training ships. However, the immediate and long-term effects to the Korean cadets in terms of awareness and tolerance with other cultures, and improving their communication skills in the English language should, likewise, be taken into consideration. Further, the university stands to gain in prospering academic proficiency in technical matters and leads

in the maritime education excellence.

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