

Self-Assessment Instrument Model Competency Level of Outdoor Education Coaches Co-Curriculum Center In Malaysia

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Abstract: *The aim of this study is to evaluate the instrument model competency level of outdoor education coaches co-curriculum center among state zone in Malaysia. This study is fundamental in looking for the competency level among outdoor coaches co-curriculum center in Malaysia. The methodological approach taken in this study is quantitative research with pre-experimental “one shot case study” approach. Stratified Sampling methods were used by researcher in this study. N = 240 outdoor education coaches were selected as respondents in this study. They were a population of outdoor education coaches of co-curriculum center in Malaysia. To compare the different level competency of outdoor education coaches state zone in Malaysia, the researcher used a one-way ANOVA analysis. Findings shown no significant differences for attribute foundations towards the level competency of outdoor education coaches co-curriculum state zone in Malaysia is =.284. Attribute hard skills show no significant differences which is =.562. Meanwhile, for attribute soft skills, there is a significant difference which is =.034. For attribute meta skills findings shown, there is a significant difference towards the competency level of outdoor education coaches co-curriculum center among state zone in Malaysia, which is =.002. Overall, from these findings, researcher found the competency level of outdoor education coaches co-curriculum center among state zone in Malaysia conquered the main attribute of soft skills and meta skills.*

(Key words: *outdoor education, outdoor coaches, competency foundations, hard skills, soft skills, meta skills and co-curriculum center*)

1.0 Introduction

Recently, the competency issues were debated among the community. In Malaysia, previous study failed to show the establishment of outdoor education competency research. The outdoor education and outdoor recreation are more focused on the effects of outdoor education programme, environmental attitude towards the outdoor camp (Md Amin, 2010 ; Omar, 2016), cohesion of outdoor education (Mazuki, 2010 ; Mohamad Norazizuddin 2014 ; Jaffry 2012). According to the Houge, Mackenzie & Brymer (2018), outdoor education gives the positive hedonic emotion towards the adventurous activities, improve effectiveness and individual competency. Besides that, outdoor education is seen as a fun experience, adventure towards the environment with the free conducive infrastructure to develop the positive feeling with avoid the

negative emotions such as angry and sadness (Bilton, 2010). Today, outdoor education is defined as one of the educational medium platform in teaching and learning based on experience (*experiential learning*) that uses environment medium as an education lab. According to Hickman & Stokes (2016) they said, outdoor education is defined as adventure education, education programming, learning outdoor education, environmental education, adventure therapy and experiential education. Almost every year, the demand of outdoor activities are high. There are 53.1% was recorded on 2019 (Md Amin, 2020), about the involving community towards the outdoor education activities and outdoor recreation activities as a leisure time which can develop fitness, and also income profit. The high demand of outdoor activities directly gives a higher value to the outdoor education landscape in Malaysia. More agencies and company produces their outdoor coaches' expert base on their expertise. The high demand also involves universities and schools. In Universities, outdoor education were implemented in the course study and in co-curriculum activities (Md Amin, 2020) In schools, outdoor education is entirely implemented by state or district co-curriculum center. The outdoor education activities were generated and manually conducted by state co-curriculum center. In others, there are also organized some outdoor activities by units and teachers at school (Omar, 2016).

1.1 Co-curriculum Center

In Ministry of Education, Co-curriculum center are supervised by the Department of Art, Sport & Co-curriculum Ministry of Education Malaysia. Meanwhile, the State Department of Education, co-curriculum center plans, implements, and develop activities focusing towards students to ensure the development of resilience are in line with philosophy of education. In Malaysia, there are 14 established co-curriculum center supervised by the Department of Art, Sport & Co-curriculum MOE. While, in district level, at least one established co-curriculum center is located. The co-curriculum center in state or district are to develop and exposure the activities of outdoor education among the students in state or district. All outdoor education activities in state or district were conducted by established outdoor coaches. The outdoor coaches are from secondary and primary school which are interested to the outdoor activities. They are opt to go through several phases and training series before being an outdoor coach in state or district co-curriculum center.

1.2 Problem Statement

With many co-curriculum institution all over the country, these study investigate the level of competency of outdoor education coaches in Malaysia. Co-curriculum is the center that plans, and implements various outdoor activities in school. Hence, researcher used the instrument model of competency outdoor education coaches in Malaysia (OCL-oMR) to measure the competency level among the outdoor coaches in Malaysia.

1.3 Research Objective

This study aims to evaluate the competency level of outdoor education co-curriculum center State Zone in Malaysia by using the OCL-oMR self-assessment instrument competency level outdoor education coaches in Malaysia.

1.4 Research Question

According to the research objective, this study will answer the research question given :

1. Is there any significant different competency level of outdoor education coaches in co-curriculum center for *foundation, hard skills, soft skills and meta skills* attributes among state zones in Malaysia?

2. Research Methodology

To determine the competency level of outdoor education coaches co-curriculum center among state zone in Malaysia, researcher using the quantitative research design with “one shot case study” approach in this study. This study focus to evaluate the overall competency level of outdoor coaches without using any treatment group. Researcher divides the respondents into four main groups (zone) in Malaysia which are in the Northern Zone (Perlis, Pulau Pinang, Kedah, Perak), Western Zone (Selangor, Kuala Lumpur & Putrajaya), Southern Zone (Melaka, Negeri Sembilan & Johor) and Eastern Zone (Kelantan, Terengganu & Pahang). These research population are among the outdoor coaches co-curriculum center in Malaysia. Researcher using the *Stratified Sampling Method* with votes sampling approach among the research population sample. Sample of these study will represent their zone population and answer the instrument OCL-oMR to determine their competency level.

To fulfill the instruments, the researcher uses two approach which are (i) post the instrument to the selected co-curriculum centre and assist with head of coaches co-curriculum center to manage the procedure of instrument and (ii) researcher collects the data by himself. The process of data collection to all coaches is on the fitness test day at the co-curriculum center. The day of the fitness test is recommended by the co-curriculum center. This program is an annual program that will be attended by outdoor education coaches to evaluate their fitness level every year.

3. Results & Discussion

To analyze the collected data, researcher uses the statistic computer program SPSS version 21.0. About $n=240$ respondent of questionnaire sets were accepted to analyze and evaluate the competency level of outdoor education coaches co-curriculum center among state zone in Malaysia towards the attribute *foundation, hard skills, soft skills and meta skills*. To evaluate the competency level among the coaches, one-way ANOVA were used in these study. One-way ANOVA analysis were chosen to compare the independent variables score to three or more dependents variables (Hashim, 2014).

From the findings, one-way ANOVA in Table 1 show no significant differences to competency level of outdoor education coaches between state zone in Malaysia $p < .05$ $F(3, 236) = 1.28$, $p = .284$. According to the overall descriptive analysis, competency level of attribute *foundation* is the highest (94.4%). Score min difference for attribute *foundation* was significant among the other state zone in Malaysia which is Southern Zone ($M = 92.3$, $SD = 8.36$), Northern Zone ($M = 93.5$, $SD = 9.27$), Western Zone ($M = 95.9$, $SD = 12.45$) and Eastern Zone ($M = 95.1$, $SD = 8.99$). Western Zone were recorded the highest competency level of outdoor education coaches co-curriculum center for attribute *foundation* among the state zone in Malaysia.

Table 1:
 One Way ANOVA test attribute *foundation* for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia.

	Sum of squares	df	Mean squares	Nilai F	Sig.
Between Group	378.32	3	126.11	1.28	.284
In Group	23344.33	236	98.92		
Total	23722.65	239			

Significant difference are at level $< .05$

Homogeneity of Variances Test

Statistic	df1	df2	Sig.
Levene	3	236	.304
1.22			

Table 2:
 Distribute attribute *foundation* for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia.

<i>Foundation</i>	N	% Mean (M)	% Standard Deviation (SD)
Southern Zone	40	92.3	8.26
Northern Zone	70	93.6	9.27
Western Zone	60	95.9	12.45
Eastern Zone	70	95.1	8.99
Total	240	94.4	9.96

Table 2, explains the min percentage findings for attribute foundation for competency level of outdoor education co-curriculum center state zone in Malaysia. Findings show the Western Zone is the highest min percentage (95.9%) competency level of foundation compare to the other zones. For Southern Zone findings show the min value (92.3%) which the lowest min value among other zones. Overall, the findings analysis shown, overall competency level foundation of outdoor education coaches co-curriculum center among state zones in Malaysia is (94.4%).

Meanwhile, findings analysis for attribute hard skills is shown in Table 3, no significant differences in the competency level of outdoor education co-curriculum center State Zone in Malaysia is $p < .05$ $F(3, 236) = .685$, $p = .562$. According to the overall descriptive analysis, competency level of outdoor education coaches co-curriculum for attribute *hard skills* is (81.14%) is the highest. Score min difference for attribute *hard skills* is significant between the state zone in Southern Zone ($M = 81.5$, $SD = 5.42$), Northern Zone ($M = 82.2$, $SD = 7.18$), Western Zone ($M = 80.5$, $SD = 8.32$) and Eastern Zone ($M = 81.1$, $SD = 8.10$). Overall *hard skills* findings shown, Northern Zone shown the highest percentage competency level of outdoor education coaches with (82.16%).

Table 3:
 One Way ANOVA test attribute *hard skills* for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia.

	Sum of squares	df	Mean squares	Value <i>F</i>	Sig.
Between Group	135.42	3	45.14	.685	.562
In Group	15551.04	236	65.89		
Total	15686.46	239			

Significant difference are at level $< .05$

Homogeneity of Variances Test

Statistic	df1	df2	Sig.
<i>Levene</i>			
2.405	3	236	.068

Table 4:
 Distribute attribute *hard skills* for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia.

<i>Hard Skills</i>	<i>N</i>	% Min (<i>M</i>)	%(<i>SD</i>)
Southern Zone	40	81.50	5.42

Northern Zone	70	82.16	7.18
Western Zone	60	80.40	10.15
Eastern Zone	70	80.54	8.32
Total	240	81.14	8.10

Table 4 show percentage min findings for attribute hard skills for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia. Findings shown Northern Zone with the highest percentage (82.16%) competency level of hard skills compared to other zones. Western Zone posted mean value of(80.54%) which is the lowest mean value among the other state zones. The analysis findings posted overall competency level *hard skills* of outdoor education coaches co-curriculum center among state zone in Malaysia is (81.14%).

Table 5, explains analysis findings for *soft skills* attribute there is a significant difference competency level of outdoor education coaches co-curriculum center among state zone in Malaysia $p < .05$ $F(3, 236) = 2.93$, $p = .034$. *Post Hoc* Comparison by using *Tukey Test* shown, there is asignificant score mean difference for attribute *soft skills* between state zone in Malaysia for Southern Zone ($M = 84.43$, $SD = 5.73$), Northern Zone ($M = 84.06$, $SD = 6.20$), Western Zone ($M = 80.40$, $SD = 12.10$) and Eastern Zone ($M = 81.40$, $SD = 8.81$). Overall findings show, total mean percentage for attribute *soft skills* is (82.43%) which is Southern Zone posted the highest score mean compared with other state zones is (84.43%).

Table 5:

One Way ANOVA test attribute *soft skills* for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia.

	Sum of squares	df	Mean squares	Value <i>F</i>	Sig.
Between Group	666.05	3	222.02	2.93	.034
Within Group	17880.75	236	75.77		
Total	18546.80	239			

Significant difference are at level $< .05$

Homogeneity of Variance Tests

Statistic	df1	df2	Sig.
<i>Levene</i>	3	236	.000
7.420			

Table 6:
 (Multiple Comparison Post Hoc Tukey Test for competency level (soft skills) Outdoor education coaches co-curriculum center among state zone in Malaysia.
 Tukey HSD

State	State	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Southern	Northern	.3679	1.72526	.997	-4.0961	4.8318
	Western	4.0250	1.77677	.109	-.5723	8.6223
	Eastern	3.0250	1.72526	.299	-1.4390	7.4890
Northern	Southern	-.3679	1.72526	.997	-4.8318	4.0961
	Western	3.6571	1.53138	.082	-.3052	7.6195
	Eastern	2.6571	1.47131	.273	-1.1498	6.4640
Western	Southern	-4.0250	1.77677	.109	-8.6223	.5723
	Northern	-3.6571	1.53138	.082	-7.6195	.3052
	Eastern	-1.0000	1.53138	.914	-4.9623	2.9623
Eastern	Southern	-3.0250	1.72526	.299	-7.4890	1.4390
	Northern	-2.6571	1.47131	.273	-6.4640	1.1498
	Western	1.0000	1.53138	.914	-2.9623	4.9623

Significant mean difference are at level <.05

Table 6 explains the significant findings for *soft skills* attribute towards the competency level of outdoor education coaches co-curriculum center among state zone in Malaysia. Findings *Post Hoc Tukey Test* show Western and Northern Zone posted the significant value for soft skills attribute for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia. It is clearly explained outdoor education coaches in Western and Northern dominate the *soft skills* attribute. Meanwhile for Southern and Eastern Zone, posted no significant difference towards the competency level of soft skills among the outdoor coaches.

Table 7:
 Distribution *Soft Skills* attribute of outdoor education coaches co-curriculum center among state zone in Malaysia.

<i>Soft Skills</i>	<i>N</i>	%Min (<i>M</i>)	% (<i>SD</i>)
Southern Zone	40	84.43	5.73
Northern Zone	70	84.06	6.20
Western Zone	60	80.40	12.10
Eastern Zone	70	81.40	8.83
Total	240	82.43	8.81

In Table 7, explains the mean percentage findings for *soft skills* attribute towards the competency level of outdoor education coaches co-curriculum center among state zone in Malaysia. Findings show, Southern Zone were highest score mean percentage (84.43%) competency level for soft skills attribute compared to the state zone coaches. Meanwhile for Western Zone has posted a score mean of (80.40%) which is the lowest score mean among the others state zone. Overall, findings analysis show the total competency level of *soft skills attribute* among outdoor education coaches co-curriculum center among state zone in Malaysia is (82.43%).

Meanwhile, Table 8 shown is the last attribute which is *meta skills*, there is a significant difference towards the competency level of outdoor education coaches co-curriculum center in Malaysia at level $p < .05$ $F(3, 236) = 4.957$, $p = .002$. Overall findings, mean value percentage for *meta skills* attribute is the highest with (89.54%). Comparison Post Hoc Tukey Test shown, score mean difference meta skills were significant among state zone are Southern Zone ($M = 93.25$, $SD = 5.35$), Northern Zone ($M = 90.59$, $SD = 6.37$), Western Zone ($M = 88.03$, $SD = 10.95$) and Eastern Zone ($M = 87.67$, $SD = 8.51$). Southern Zone posted the highest mean value percentage for competency level of outdoor education coaches in Malaysia.

Table 8:
 One Way ANOVA test attribute *meta skills* for competency level of outdoor education coaches co-curriculum center among state zone in Malaysia

	Sum squares	of <i>df</i>	Mean squares	Value <i>F</i>	Sig.
Between Group	1007.72	3	335.91	4.957	.002
In Group	15993.86	236	67.77		

Total 17001.58 239

Significant difference are at level <.05

Homogeneity of Variances Test

Statistic	df1	df2	Sig.
<i>Levene</i>			
3.967	3	236	.009

Table 9

Multiple Comparison Post Hoc Tukey Test for competency level (meta skills) outdoor education coaches co-curriculum center among state zone in Malaysia.

Tukey HSD

State (I)	State (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Southern	Northern	2.6643	1.63169	.362	-1.5576	6.8862
	Western	5.2167(*)	1.68041	.011	.8687	9.5646
	Eastern	5.5786(*)	1.63169	.004	1.3567	9.8005
Northern	Southern	-2.6643	1.63169	.362	-6.8862	1.5576
	Western	2.5524	1.44833	.294	-1.1951	6.2998
	Eastern	2.9143	1.39151	.158	-.6862	6.5147
Western	Southern	-5.2167(*)	1.68041	.011	-9.5646	-.8687
	Northern	-2.5524	1.44833	.294	-6.2998	1.1951
	Eastern	.3619	1.44833	.995	-3.3855	4.1094
Eastern	Southern	-5.5786(*)	1.63169	.004	-9.8005	-1.3567
	Northern	-2.9143	1.39151	.158	-6.5147	.6862
	Western	-.3619	1.44833	.995	-4.1094	3.3855

Significant mean difference are at level .05

Based on the findings, Table 9 explained the significant of *meta skills* attribute towards the competency level of outdoor education co-curriculum center state zone in Malaysia. *Post Hoc Tukey Test* shown, Western, Eastern and Southern Zone posted significant value towards the *meta skills* attribute among the outdoor education coaches co-curriculum center among state zone in Malaysia. It is explained the outdoor education coaches in Western, Eastern and Southern Zone were dominant in the *meta skills* attribute Northern Zone posted no significant value towards the competency level of *meta skills* among their outdoor education coaches.

Table 10:

Distribution *Meta Skills* attribute of outdoor education coaches co-curriculum center among state zone in Malaysia.

<i>Meta Skills</i>	<i>N</i>	%Min (<i>M</i>)	% (<i>SD</i>)
Southern Zone	40	93.25	5.35
Northern Zone	70	90.59	6.37
Western Zone	60	88.03	10.95
Eastern Zone	70	87.67	8.51
Total	240	89.54	8.43

As shown in Table 10, mean percentage (%) for *meta skills* attribute towards the outdoor education coaches co-curriculum center among state zone in Malaysia between state zone in Malaysia. The findings show, Southern Zone posted the highest mean percentage value (93.25%) towards the competency level of *meta skills* were dominant compared to the other state zones. For Eastern zone posted mean value (87.67%) which is the lowest among the others state zones. Overall findings, the analysis shows a total competency level of *meta skills* towards the outdoor education coaches co-curriculum center among state zone in Malaysia is (89.54%).

4. Discussion

Conclusion of this study, the one way ANOVA analysis shown, there is no significant differences in the two attributes (*foundation and hard skills*) towards the competency level of outdoor education co-curriculum center among state zone in Malaysia. But there are two attributes (*soft skills & meta skills*) were significant differences towards the competency level of outdoor education co-curriculum center among state zone in Malaysia which is are at level $F(3, 236) = 2.93$, ($p = .034$) and also *meta skills* attribute $F(3, 236) = 4.957$, ($p = .002$). In this case, *soft skills & meta skills* attributes are the dominant attribute competency level among the outdoor education co-curriculum center among state zone in Malaysia. Meanwhile, for the *foundation & hard skills* attribute there are no significant differences towards the competency level of outdoor education co-curriculum center among state zone in Malaysia at levels $F(3, 236) = 1.28$, ($p = .284$) for *foundation* and *hard skills* attribute are $F(3, 236) = .685$, ($p = .562$).

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