Validity Source Comparison of Mental Health Continuum-Short Form (MHC-SF) in Setswana-South Africa and Indonesia

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Abstract. Mental Health Continuum-Short Form is a scale to measure positive mental health. This study aimed to compare the validity source of the MHC-SF in Setswana and Indonesia. A literature review was used as a method to explore the validity source of the MHC-SF. Both MHC-SF scales have a good content validity and good internal structure which showed by the Confirmatory Factor Analysis that fulfilled the good fit criterion, whereas three factors namely Emotional Well-Being, Social Well-Being, and Psychological Well-Being were found to be the best construct of MHC-SF. Both MHC-SF scales showed good response and consequences of testing. The MHC-SF in Setswana has good convergent validity compared to the MHC-SF in Indonesian. The limitation of this study only compared two studies from two countries. Therefore, the implication of this study suggests that the MHC-SF in the Indonesian needs further validation. The future study can expand validation from various countries.

Keywords: Mental Health Continuum-Short Form, positive mental health, CFA, validity.

1 Introduction

Mental Health Continuum-Long Form (MHC-LF) with 40 items was created to measure positive mental health [1]. Some scales in most settings are too long to measure positive mental health or only measure several aspects of well-being [2]. This issue was addressed by developing Mental Health Continuum-Short Form (MHC-SF) [3]. The level of individual positive mental health can be measured through three dimensions of well-being e.g. Social Well-Being (SWB), Psychological Well-Being (PWB), and Emotional Well-Being (EWB) [1], [4]. MHC-SF measures the three dimensions of well-being and it has been used widely around the globe in various settings. Some research evaluated MHC-SF psychometric properties including its validity but research that evaluated MHC-SF validity based on evidence such as content, relation to other variables, response process, internal structure, and consequences of a measurement as suggested [5] were limited. The validity source [5] is also referred by other researchers in future research [6],[7] as the main indicator of validity. Validation on MHC-SF in the Setswana language in South Africa [3] as the first validation of MHC-SF and validation of MHC-SF in Indonesian [8] had been done, but those validations has a limitation which was not been

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reviewed based on the five validity recommendation systematically [5], [6], [7]. This study aimed to compare the source of validity of the MHC-SF in Setswana-South Africa as the first MHC-SF version and the Indonesian MHC-SF version based on validity recommendations [5], [6], [7].

Positive mental health theory was an integration of three theories namely Social Well-Being (SWB), Psychological Well-Being (PWB), and Emotional Well-Being (EWB) [1]. Positive mental health is an individual well-being in the form of life evaluation and personal perception of psychological function, social function, and emotional condition related to life [9]. It means psychological function shows individual adaptation which enables one to function positively, social function is an assessment of the condition and function of an individual in his or her environment, and emotion condition is related to the existence of positive emotion about life. PWB as one dimension in positive mental health referred to Ryff's theory [10]. PWB consists of six subdimensions namely: a) autonomy which means able to determine everything independently, b) environmental mastery which means has a mastery and ability to manage the environment, c) personal growth which means has a development drive continuously, d) positive relations with others which means has a relationship that trust each other, satisfying relationship, and has a good relationship, e) purpose in life which means has purposes in life, and f) self-acceptance which means an individual has a positive attitude toward his or her self [10], [11], [12]. EWB is another dimension of positive mental health which was defined as a symptom that showed the existence of positive emotions about life that measure positive affect, life satisfaction, and interest in life [1]. The last dimension of positive mental health is SWB which was defined as an assessment of individual condition and function in the society [13]. SWB showed individual assessment toward experience in the society and included five subdimensions: a) social contribution which is an assessment of individual social values that show an individual is important in the society, b) social actualization means evaluation of potential and history of society, c) social acceptance which is society perception through character and quality of other people, d) social integration means assessment of individual relationship quality with the society and community, e) social coherence which means quality, organization, social world operation, including desire to know the world [13], [12]. Moreover, the source of validity derived from five resources [5], [6], [7]: a) Content: do items of the instrument indicate the construct completely?, b) Internal structure: factor structure and acceptable reliability, c) Relation to other variables: comparison with scores to another scales measuring the same construct, d) Response process: correlation between thinking process of the respondents or observers and the intended construct, and e) Consequences of testing: do the scale scores make a significant difference.

2 Method

The MHC-SF as a measure of positive mental health was reviewed on 23-28 October 2023 through several sources: a) psycnet.apa.org; b) Google Scholar; c) Elsevier. The phrases "MHC-SF AND South Africa" and "MHC-SF AND Indonesia" were used in the literature review. Papers with the most complete validation in South Africa and Indonesia were taken to be compared. Two papers from psycnet.apa.org which referred to one paper which was MHC-SF in Setswana-South Africa [3] were found, but there was no paper related to MHC-SF in Indonesia. A paper from Elsevier with both phrases above was not found. Meanwhile, 15.700 papers from Google Scholar with the phrase "MHC-SF AND South Africa" were found. At least five papers about MHC-SF in South Africa were found, but only one paper which was the first

validation of MHC-SF in South Africa and has the most complete validation [3] was taken and it was the same paper as the previous search in psycnet.apa.org. 1.310 papers with the phrase ”MHC-SF AND Indonesia“ were found in Elsevier. There were at least eight papers about MHC-SF in Indonesia and one paper showed the most complete validation [8]. The most complete validation of MHC-SF in Indonesia and the first MHC-SF validation in South Africa were compared. Findings on MHC-SF particularly the first validation of MHC-SF in the Setswana language in South Africa [3] and validation of MHC-SF in the Indonesian context [8] were reviewed and were analyzed based on the five sources of valid evidence systematically [5], [6], [7].

3 Findings and Discussion

MHC-SF has been tested for its validity and reliability in South Africa and followed in other countries including Indonesia. The five sources of validity evidence were reviewed systematically [5], [6], [7] on the MHC-SF in the Setswana-speaking community in South Africa and its results are as follows [3]: a) *Content*: MHC-SF content has already been completed according to the theory proposed by Keyes [1], [4], [14]. MHC-SF represented the three subscales e.g. EWB, PWB, and SWB. The paper did not present validity on every item which made the quality of every item unclear. Evaluation of every item could consider future research on whether need to replace or change the items to become better. Secondly, the MHC-SF in Setswana was reviewed in terms of b) *Internal structure*: Confirmatory Factor Analysis (CFA) confirmed the MHC-SF model with three factors showed good fit ($\chi 2$= 269,4; df= 62; GFI/AGFI= 0,96/0,94; CN= 354,5; RMSEA= 0,06; AIC= 345,9; $\chi 2$ difference ÷ df difference= 141,73–4 ; $p < 0,001$). The MHC-SF has a good validity which made it possible to measure positive mental health in the community of Setswana-speaking South Africans. Furthermore, internal consistency as a reliability indicator of total MHC-SF was high ($\alpha = 0.74$; $p< 0,001$). It indicated that MHC-SF was consistent in measuring positive mental health with three constructs e.g. EWB, PWB, and SWB. The MHC-SF has high reliability if it was counted as a total score only, but if it was counted based on subscale score then it showed lower reliability e.g. EWB= 0,73; PWB= 0,67; and SWB= 0,59. Therefore, MHC-SF should use the total score in order to get higher reliability. Moreover, the MHC-SF in Setswana was also reviewed in terms of c) *Relation to other variables*: criterion validities of total MHC-SF were in a good category and they were shown by their correlation with other variables. The total MHC-SF has a positive and very significant correlation with Affectometer Positive Affect Scale (r= 0,52; $p < 0,001$), Generalized Self-Efficacy Scale (r= 0,39; $p < 0,001$), Satisfaction With Life Scales (r= 0,37; $p < 0,001$), Coping Strategies Scale (N-COPE) (r= 0,34; $p < 0,001$), Sense Of Coherence (r= 0,32; $p < 0,001$), New General Self-Efficacy Scale (r= 0,32; $p < 0,001$), Community Collective Efficacy Scale (r= 0,30; $p < 0,001$), and General Health Questionnaires (GHQ) (r= -0,22; $p < 0,05$). Only one correlation between MHC-SF and GHQ has a negative and weak correlation because GHQ measures negative symptoms, while most correlations range from 0,3 to 0,52 which indicates that correlations in the moderate to strong level [15]. The correlation between MHC-SF with N-COPE subscales was in the very weak to weak category (r= 0,09 to 0,22; $p < 0,05$). Therefore, it is better to use the total score of N-COPE to examine the correlation between MHC-SF and N-COPE. Meanwhile, MHC-SF has a weak and negative but significant correlation with the total score and all subscales of GHQ (r= 0,17 to 0,22; $p < 0,05$). The result means that MHC-SF and GHQ measure different constructs, MHC-SF measures positive mental health while GHQ measures mental illness. It showed that MHC-SF measures positive mental

health which is described as flourishing. Criterion validity used mostly convergent validity, while there was only one divergent validity test. Therefore, future research should add another divergent validity test to strengthen evidence that MHC-SF measures different constructs compared to other scales.

Furthermore, the source of validity on MHC-SF in Setswana-South Africa [3] was also reviewed in terms of: d) *Response process*: The MHC-SF was translated from English to Setswana, then back-translated to English, and finally, they were finalized through the research committee's approach. There were no big matters in the translation process. 16 bilingual field workers (English and Setswana-speaking) from the research area were trained and they helped participants in answering questionnaires in Setswana in the format of structured interview because some of the participants were illiterate. This method could cause problems since some of the participants could not answer independently. On the other side, fortunately, there were questionnaires in English for English-speaking participants. Evaluation of the process of test administration with the help of trained assistants could cause problems because it was possible that they did not understand the questionnaires completely. The assistants were field workers who could speak English and Setswana while answering questionnaires that were not only related to language but also needed complex understanding with high thinking order. Therefore, intelligence ability and minimum education requirements for the research assistant should be considered. In addition, the paper did not report in detail the number of participants who answered through structured interviews and who answered questionnaires in English. It can contribute additional data related to the administration process. e) *Consequences of testing*: The score of measurement showed that MHC-SF was able to measure positive mental health through total score and even through subscales from Setswana-speaking South African participants. The results showed 20% of the participants in the flourishing category, 67,8% in the moderate mental health, and 12,2% in the languishing category. It means MHC-SF could be used for positive mental health research in Setswana-speaking South African whether they were flourishing (good, in the positive direction), languishing (not good or stuck), or moderate. It could be used to give recommendation for maintaining or improving positive mental health. Evaluation towards this result related to the process of data collection which was not answered independently by the participants because of illiterate and were helped by assistants. The results in the three categories could be the imprecise description. Therefore, to make recommendations for future empowerment related to positive mental health, researchers need more high-profile assistants to have precise data collection and examination because there were many participants (N= 1050) while there were only 16 research assistants.

Moreover, the evaluation of the source of validity on the MHC-SF in Indonesia [8] is as follows: a. *Content*: content validity was done by verification from three experts e.g. two clinical psychologists and the other one was a doctorate in developmental psychology. They gave ratings on the three dimensions and did a panel discussion to discuss the item suitability based on the targeted population. They concluded that content validity was relevant for the adapted test content. The researchers revised some words on some items to gain meaning that could be understood by the targeted population. Evaluation of this content validity was there were some items that seemed inaccurate which in turn were changed by the researchers in order could be understood by the participants easily. Furthermore, the researchers could ask the original author to confirm the translation, whether it was correct according to the construct or not. b) *Internal Structure*: construct validity was done through CFA. The result showed that a structure with three factors was the most suitable for MHC-SF. Goodness of fit showed that it fulfilled the criterion e.g. RMSEA 0,048 (>0,05), Goodness of Fit Index (GFI) 0,988 (>0,95), Comparative

Fit Index (CFI) 0,972 (>0,95), dan Incremental Fit Index (IFI) 0,972 (>0,95). The next step of CFA was checking the loading factor between item and dimension. A minimum loading factor should be at least 0,5 to be considered significant [16]. All loading factors of 14 items of MHC-SF showed results between 0,501-0,835 which means all were good fit. Based on the CFA and loading factor, MHC-SF fulfilled the construct validity criterion. The reliability was using the alpha Cronbach coefficient and it was a generalization from the Kuder-Richardson formula [17] which stated that alpha coefficients 0,65- 0,80 were considered sufficient as measurement tools in human dimension research. The reliability results showed the alpha coefficient of EWB= 0,811, PWB= 0,809, and SWB= 0,729. The reliability of MHC-SF in Indonesia could be considered a good result since previous studies showed reliability between 0,7-0,8 in Setswana-South Africa version [4], Serbian version [18], Canadian English version [12], Philippine version [19], Netherlands adolescence version [20], and Italian version [21]. Presented reliability [8] did not present reliability based on the total scores, therefore the overall consistency remains unknown.

Moreover, the evaluation of MHC-SF in the Indonesian version [8] was also reviewed on: c) *Relation to other variables*: the researchers did not do criterion validity by correlating MHC-SF to other variables (convergent and divergent validity). Therefore, it remained unknown whether MHC-SF in the Indonesian version measures the same construct e.g. positive mental health, or measure another construct. It is an opportunity for other researchers in the future to do MHC-SF validation by adding convergent and divergent validity. A further source of validity was reviewed in terms of: d) *Response process*: MHC-SF was translated from English to Indonesian and then back-translated to English. Even though the content validity had already been verified, the researchers changed some words on some items in order they could be understood easily by the participants. Participants fulfilled the MHC-SF which consisted of 14 items independently by remembering how often they experienced the things in the items in the last month. Participants had the freedom to be involved in the research through social media and other platforms. All participants were students (N= 256, age mean 19,2 years). From a total of 280 questionnaires, only 256 questionnaires could be used. Therefore, it could be concluded that all items could be understood by most participants. It needed evaluation since there was a problem potential and the questionnaire fulfillment process that made some of the questionnaires could not be used. Another evaluation in this part was the adolescents were the targeted sample but the age mean was 19,2 years old which was categorized as the end of adolescents. Meanwhile, the early and the middle adolescents should be included in the study. Furthermore, the researchers did not have any adolescence phase reference which made the participant's category ambiguous between adolescent or early adult. Students as participants did not refer to school students or university students, but if they were considered from their age mean and the range age between 18 to 24 years old, then they probably were university students. It means participants who could understand the questionnaires were late adolescents and had a status as students.

Lastly, the source of validity was also reviewed in terms of e) *Consequences of testing*: measurement scores showed that Indonesian MHC-SF has good validity and reliability to measure positive mental health with three subscales (EWB, PWB, and SWB) on the participants of Indonesian adolescents. It could help mental health practitioners in measuring adolescent positive mental health. The result of the research could be used for promoting and intervening positive mental health of adolescents in Indonesia. Adolescents could maintain and improve their positive mental health in daily life. Evaluation on this part was it could be imposed on the end phase of adolescence because the sample represented that phase of development. Validation

on the larger sample which covers early and middle adolescence can be used to gain validation on the overall adolescence phase. Meanwhile, MHC-SF can be used for early adults by adding validation on the sample of early adults, aged between 18 to 40 years old.

4 Conclusion

From previous findings, it can be concluded that both scales, MHC-SF in the Setswana-South Africa version and the MHC-SF in the Indonesian version, have good content validity since they represented three factors and have good items that measured MHC-SF. The internal structure of both scales showed that CFA with three factors fulfilled the good fit criterion. Furthermore, the MHC-SF in Setswana-South Africa has good convergent validity to other variables but has weak divergent validity. Meanwhile, the MHC-SF in the Indonesian version has no criterion validity whether convergent or divergent validity. Moreover, both scales showed a good response process overall, with little evaluation of the MHC-SF Setwana-South Africa version particularly on the illiterate participants who have less independence in answering the questionnaires. The last indicator, the consequences of testing showed that both scales have a good validity to measure positive mental health. The MHC-SF in the Setswana-South Africa version fulfilled all of the validity sources, while the MHC-SF in the Indonesian version fulfilled four out of five validity sources. The above explanation showed that the MHC-SF validation in Indonesia was lacking in terms of criterion validity. The limitation of this study was it only compared two research from two countries while there are many MHC-SF versions. The implication of this study suggests that the MHC-SF in the Indonesian version needs further validation through convergent and divergent validity to make sure that it measures positive mental health. In addition, future studies can expand the comparison of the MHC-SF validation from various countries.

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Ladies and Gentlemen, first of all allow me in this opportunity to invite you to extend our deepest gratitude and praise to the Almighty God for all His blessings, grace, and mercies that make us possible to gather here in excellent health and condition.

Dear keynote speakers, distinguished guests and participants, a very hearty morning to everyone joining us today. Welcome to our annual conference, the 6th International Conference on Food and Agriculture (ICoFa) 2023 and 4th International Conference on Social Science, Humanity and Public Health (Icoship) 2024. The theme of this year's Icofa is "Enhancing a Sustainable Future for Food and Agriculture's Technology in Saving the Planet". and that of Icoship is Enhancing a Sustainable Future in The Fields of Social Sciences, Humanities, and Public Health". I assure you that these conferences will provide fruitful information for everyone participating in the conference. I am also grateful for all the speakers who have joined us today to share their experiences and knowledge with us.

The world has been facing plenty challenges in many different aspects of life. We must address the sustainability agenda to deliver improvements in efficiency and resource productivity. In relation to this, the Preparation of the National Long-term Plan (RPJPN) 2025-2025 carried the vision of development a sovereign, advanced, and sustainable archipelago by realizing social transformation in science and technology, innovation, economic productivity, implementation of the green economy, digital transformation, domestic and global economic integration, urban as a center of economic growth. This social transformation is expected to improve the quality of human life and create a more prosperous, just, and cohesive society.

Interdisciplinary collaboration such as the public and private sectors, non-governmental and intergovernmental organizations, scientists, engineers should be promoted to enhance productivity and competitiveness. The exchange of knowledge and promotions of technological applications to support human life sustainability should be built. In accordance with the vision and mission of Politeknik Negeri Jember, these international conferences are several among many efforts to make these vision and mission come true. It is part of our concern on contribution of science, technology, humanities for enhancing nation productivity and competitiveness in Indonesia.

Hopefully, we all can significantly give more contributions to the nation advancement in the not-too-distance future.

To all of our distinguished guests and participants, thank you for being here, welcome, and enjoy the conference!

Director,

Saiful Anwar, S.TP. M.P.

PROGRAM SCHEDULE

Rundown ICoSHIP

08.00 - 08.25	Registration
08.25 - 08.30	Opening Ceremony : Profile of Politeknik Negeri Jember
	MC: **Dian Rizky, S.ST., M.ST**
08.30 - 08.40	Remo Traditional Dance
08.40 - 08.45	Opening and National Anthem : **Indonesia Raya**
08.45 - 08.50	**Hymne Politeknik Negeri Jember**
08.50 - 09.00	Welcoming Speech
	Chairman of Organizing Committee
	Dr. Ir. Dadik Pantaya, M.Si., IPU.
	Location: Ballroom
09.00 - 09.15	Welcoming Speech
	Director of Politeknik Negeri Jember
	Saiful Anwar S.TP., M.P
	Location: Ballroom
09.15 - 09.30	Opening Speech and Ceremony of ICoFA and ICoSHIP
	East Java Indonesian Chamber of Commerce and Industry
	H. Adik Dwi Putranto, S.H., M.HP.
	Pemukulan Gong (Hitting Gong)
	Location: Ballroom
09.30 - 10.00	Preparation for Keynote Speaker
	(Playing Teaching Factory Video of Politeknik Negeri Jember dan Product)
	Coffee Break -> Direction to pre function area
10.00 - 11.30	Keynote Session ICoSHIP and Discussion,
	Moderator: **Nodistya Septian Indarstana, S.S., S. Pd., M. Pd.**
	Room 2@ (15" Presentation) -> (25" Discussion)
	1. Prof. Beny Tjahyono, Ph.D.
	Coventry University, United Kingdom
	2. Assistant Prof. Md Faisal Kabir, Ph.D.
	CARE, Bangladesh
	3. Prof. Dr. Ir. Nanang Dwi Wahyono, MM.
	Politeknik Negeri Jember,Indonesia

11.30 - 12.30	Break for each room -> *Please leave the room, room set up will be carried out*
	Direction to pre function area (lunch), prayer room, and panel room
12.30 - 16.15	Parallel Session -> 7 minute presentation with discussion at the end
	***Please check the details on the website of each conference**
16.15 - 16.45	*Coffe and Prayer Break -> Direction to prayer room*
16.45 - 17.15	*Closing ceremony*
	1. Report Best Author and Best Paper Announcement by Chairman of Organizing Committee
	Dr. Ir. Dadik Pantaya, M.Si., IPU.
	2. Closing Speech by Director of Politeknik Negeri Jember
	Saiful Anwar S.Tp., M.P
	3. Closing Ceremony of ICoFA and ICoSHIP
	Location: Ballroom
17.15 - 17.30	Committee Photo Documentation
17.30 - End	Dinner and Prayer Break Direction to pre function area, restroom and prayer room

*Source: https://conference.polije.ac.id/icoship/2023/program-schedule

Parallel Session

Panel Name : Panel 1 **Room Name :**

Moderator :
1. Atma Deharja, S.KM, M.Kes
2. Mudafiq Riyan Pratama, S.Kom, M.Kom.

Timezone : Western Indonesian Time (WIB) [GMT +7]

Session 1 November 18, 2023 (12.30 - 13.15 WIB)

Paper ID	Presenter	Title	Time
1	Denny Trias Utomo	Detecting Dehydration Based on Urine Color Using Image Processing and Regulating Water Intake with an Automatic Water Pump According to Dehydration Level Using an IoT-Based	12:30 - 12:37
4	Mudafiq Riyan Pratama	Design Web-Based Online Nutrition Consultation System (Telenutrition) at the Nutrition Care Center Teaching Factory (NCC-TeFa)	12:37 - 12:44
5	Bakhtiyar Hadi Prakoso	Prototype Design of Interactive Health Promotion Portal at Tefa House of Health Promotion	12:44 - 12:51
7	Iwan Abdi Suandana	Health Service Innovation Strategy of TEFA House of Health Promotion at POLIJE with SWOT Analysis	12:51 - 12:58
12	Mochammad Choirur Roziqin	Design of Nutrition Consultation Service Application at the Teaching Factory Nutrition Care Center of Politeknik Negeri Jember	12:58 - 13:05
Discussion			13.05 - 13-15

Session 2 November 18, 2023 (13.15 - 14.00 WIB)

Paper ID	Presenter	Title	Time
14	Demiawan Rachmatta Putro Mudiono	IMPLEMENTATION OF NUTRITIONAL STATUS INFORMATION SYSTEM IN IMPROVING NCC SERVICES	13:15 - 13:22
15	R. Alamsyah Sutantio	Digital Marketing Prototype of Electronic Growth Chart (e-KMS)	13:22 - 13:29
17	M Rizal Permadi	Nutrition Counseling Improve Volleyball Male Athelets Knowledge	13:29 - 13:36
21	Yoswenita Susindra	Holistic Marketing Based E-Advertorial Design as a Marketing Strategy and Health Promotion at TeFa Nutrition Care Center State Polytechnic Jember)	13:36 - 13:43

26	Rossalina Adi Wijayanti	Optimizing Nutrition Care Management at Nutrition Care Center (NCC)	13:43 - 13:50
Discussion			13.50 - 14.00

Session 3 November 18, 2023 (14.00 - 14.45 WIB)

Paper ID	Presenter	Title	Time
43	Rifzi Devi Nurvitasari	Analysis of Preventive Behavior of CED (Chronic Energy Deficiency) in Pregnant Women Based on Fulfillment of Nutrition Based on the Health Belief Model in the Context of Early Stunting Prevention	14:00 - 14:07
45	Nicholas Yoon	Exploring the 2D:4D Ratio, Testosterone, and Athletic Performance: A Comprehensive Review	14:07 - 14:14
52	Kapil Tomar	A Machine Learning Based Prediction Model for High-Risk Pregnancy in Rural India	14:14 - 14:21
53	Chandra Mani Sharma	DepHindiNet: Multiple Attention Bi-LSTM Deep Network for Depression Detection from Hindi Text Scripts	14:21 - 14:28
54	Faizatun Nikmah	Primary Healthcare Center Service Quality: Post Accreditation	14:28 - 14:35
Discussion			14.35 - 14.45

Session 4 November 18, 2023 (14.45 - 15.30 WIB)

Paper ID	Presenter	Title	Time
9	Atma Deharja	The Design of Integrated Electronic Medical Record (EMR) with Nutritional Screening System at Nutritition Care Center (NCC) Teaching Factory	14:45 - 14:52
10	Mudafiq Riyan Pratama	Diagnosis of Stroke and Diabetes Mellitus with Classification Techniques using Decision Tree Method at dr. Soebandi Hospital	14:52 - 14:59
22	I Gede Wiryawan	Integration of Mapping Malnutrition Cases in Toddlers based on Geographic Information System with Media Communication Information Education in Health	14:59 - 15:06
30	Maya Weka Santi	Design of NCC Food Application at Teaching Factory Nutrition Care Center in Supporting Zero Stunting	15:06 - 15:13
Discussion			15.20 - 15.30

Session 5 November 18, 2023 (15.30 - 16.15 WIB)

Paper ID	Presenter	Title	Time
Discussion			16.05 - 16.15

Panel Name : Panel 2
Moderator :
1. Alfi Hidayatu Miqawati, S.Pd, M.Pd
2. Fitri Wijayanti, S.Pd, M.Pd

Room Name :
Timezone : Western Indonesian Time (WIB) [GMT +7]

Session 1 November 18, 2023 (12.30 - 13.15 WIB)

Paper ID	Presenter	Title	Time
2	Qonitatul Hasanah	User Interface Design of Student' s Metacognitive Classification in Adaptive Hypermedia Learning Environment System (HLE)	12:30 - 12:37
6	Bekti Maryuni Susanto	Performance of Hotel Management System Using Microservices and Containerization Technology	12:37 - 12:44
8	Ariesia Gemaputri	Consumer Expectations and Perceptions on Quality of Hospitality Service at the Vocational Edusip Hotel	12:44 - 12:51
11	Pramuditha Shinta Dewi Puspitasari	Optimizing Credit Score Assessment for Supervision and Administrative Control of E-Governance Based Personnel Analysts	12:51 - 12:58
13	Muhammad Awaludin	Lunisolar Calendar System of Rowot Sasak Based On Pleiades Cluster	12:58 - 13:05
Discussion			13.05 - 13-15

Session 2 November 18, 2023 (13.15 - 14.00 WIB)

Paper ID	Presenter	Title	Time
16	Sadia Abbassy	Enhancing the Sustainable Economic Policies on Socioeconomic Development and Well-being in Indonesia	13:15 - 13:22
19	Rizqi Febrian Pramudita	Human Resource Planning in the Field of Tourism at the Pioneering TeFa og Edutourism Politeknik Negeri Jember	13:22 - 13:29
20	Endro Sugiartono	Analysis of Consumer Preferences on Product Purchasing Decisions at Kemuning Polije Resto Jember Regency	13:29 - 13:36
23	Ardhitya Alam Wiguna	Development Strategy of Teaching Factory Education Tourism as a Tourist Destination at Jember State Polytechnic	13:36 - 13:43

24	Sugeng Hartanto	Measuring the Affiliation of the Qur'an and the Environment: An Evocation of Green Accounting at Tefa Fish Canning in the Dimension of Q.S Al-A'raf Verse 85	13:43 - 13:50
Discussion			13.50 - 14.00

Session 3 November 18, 2023 (14.00 - 14.45 WIB)

Paper ID	Presenter	Title	Time
25	Milawaty Milawaty	Analysis on the Development of Organizational Structure and Work Procedures (SOTK) of the Teaching Factory (TEFA) Edutourism Jember State Polytechnic	14:00 - 14:07
27	Rahma Rina Wijayanti	Analysis Internal and External Factors Effects Developing Teaching Factory Tax Center Jember State Polytechnic	14:07 - 14:14
28	Wiwik Handayani	Development Of Coating Based On Palm Oil Derivative To Extend The Gedong Gincu Mangoes Freshness	14:14 - 14:21
29	Wiwik Handayani	Application Ca-Stearate Palm Oil Derivative Rubber Processing Aid In Testing Rubber Industry	14:21 - 14:28
31	Gullit Tornado Taufan	Cross-Cultural Aspects of Table Manners and Etiquette in Audio-Visual Materials on YouTube	14:28 - 14:35
Discussion			14.35 - 14.45

Session 4 November 18, 2023 (14.45 - 15.30 WIB)

Paper ID	Presenter	Title	Time
33	Sri Sundari	Performance Improvement and Development Strategy for the Teaching Factory (TeFa) Tax Center at Jember State Polytechnic	14:45 - 14:52
34	Puji Hastuti	Design and Implementation of Secure POLIJE Fintech Payment System for DiKantin	14:52 - 14:59
36	Siti Ingefatul Komariah	Interactive Learning Media for Fruit Recognition in Early Childhood using Backpropagation	14:59 - 15:06
37	Rahmat Suraya	STRATEGIC INTERACTIONS: TRANSACTIONAL POLITICS AND DEMOCRATIC OUTCOMES IN INDONESIA	15:06 - 15:13
38	Mekuriaw Chanie	The Practice of Decentralization in terms of Community Participation in Decision Making	15:13 - 15:20

Discussion	15.20 - 15.30

Session 5 November 18, 2023 (15.30 - 16.15 WIB)

Paper ID	Presenter	Title	Time
50	Ichmi Yani Arinda Rohmah	THE ROLE OF INSTITUTIONS IN CONTROLLING THE DIGITAL INVESTMENT MARKET IN INDONESIA	15:30 - 15:37
51	Petrayuna Dian Omega	Validity Source Comparison of Mental Health Continuum-Short Form (MHC-SF) in Setswana-South Africa and Indonesia	15:37 - 15:44
Discussion			16.05 - 16.15

Panel Name : Panel 3 **Zoom Link :**

Timezone : Western Indonesian Time (WIB) [GMT +7] **Meeting ID :**

Moderator :
1. Nodistya Septian, S.Pd, M.Pd.
2. Maya Weka Santi, S.KM, M.Kes

Password :

Session 1 November 18, 2023 (12.30 - 13.15 WIB)

Paper ID	Presenter	Title	Time
39	Widana Primaningtyas	Assessing Changes in Knowledge of Non-Communicable Diseases (NCDs) in Junior High School Teachers After Training on NCDs Screening	12:30 - 12:37
41	Gede Surya Mahendra	Implementation of the FUCOM-RAFSI Method in the Decision Support System for Recommending Favorite Tourist Attractions	12:37 - 12:44
56	Ahmad Fikril Al Muzakki	LoFo: An Innovative Android App Prototype to Combat Food Waste in Indonesia	12:44 - 12:51
46	Afif Maulana Setiawan	The Impact of Work Involvement on Employee Performance: Exploring the Moderating Role of Voice Behavior	12:51 - 12:58
47	Galuh Eka Arum Putri	The Effect Of Incentives On Employee Productivity With Teamwork As A Moderation Variable	12:58 - 13:05
Discussion			13.05 - 13-15

Session 2 November 18, 2023 (13.15 - 14.00 WIB)

Paper ID	Presenter	Title	Time

48	Syifa Khoirunnisa	The Influence of Cyberloafing on Employee Productivity: The Moderating Role of Job Stress	13:15 - 13:22
49	Adelia Syafira	The Effect of Internship Program on Student Work Readiness through Soft Skills as an Intervening Variable	13:22 - 13:29
55	Hafsyahda Gustiani	ANALYSIS OF GREEN PURCHESE INTENTION FACTORS IN GESITS ELECTRIC MOTORS WITH ENVIRONMENTAL CONCERN AS AN INTERVENING VARIABEL	13:29 - 13:36
44	Rohmaningtyas Hidayah Setyaningrum	Factors Affecting Coping Mechanism of COVID-19 Survivors	13:36 - 13:43
Discussion			13.50 - 14.00

Session 3 November 18, 2023 (14.00 - 14.45 WIB)

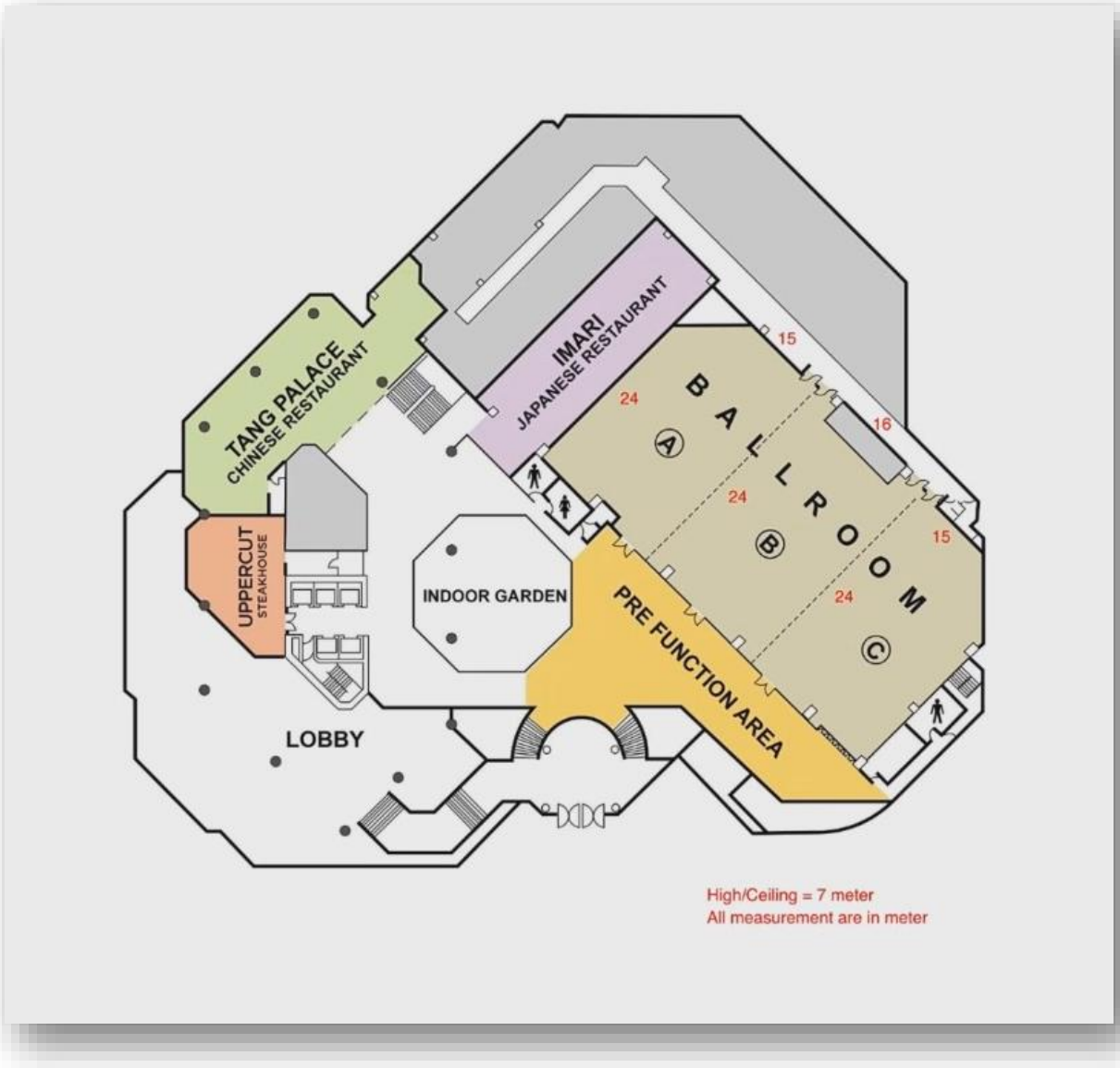
Paper ID	Presenter	Title	Time
Discussion			14.35 - 14.45

Session 4 November 18, 2023 (14.45 - 15.30 WIB)

Paper ID	Presenter	Title	Time
Discussion			15.20 - 15.30

*Source: https://conference.polije.ac.id/icoship/2023/presentation-schedule

On Venue


TANG PALACE
CHINESE RESTAURANT
IMARI
JAPANESE RESTAURANT
BALLROOM
A
B
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15
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16
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UPPERCUT
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INDOOR GARDEN
PRE FUNCTION AREA
LOBBY
High/Ceiling = 7 meter
All measurement are in meter

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MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY

POLITEKNIK NEGERI JEMBER

CERTIFICATE

No. 19274/PL17/PG/2023

Is awarded to:

Petrayuna Dian Omega

In recognition and appreciation of valuable contributions as:

Presenter

at The Scientific Conference, **The 4th International Conference on Social Science, Humanity and Public Health (ICoSHIP)** on theme "Enhancing a Sustainable Future in The Fields of Social Sciences, Humanities, and Public Health" on November, 18th - 19th 2023.

Jember, November 19th 2023
Director

Sa[illegible] Anwar, S.TP, MP
NIP. 196912251997021005