



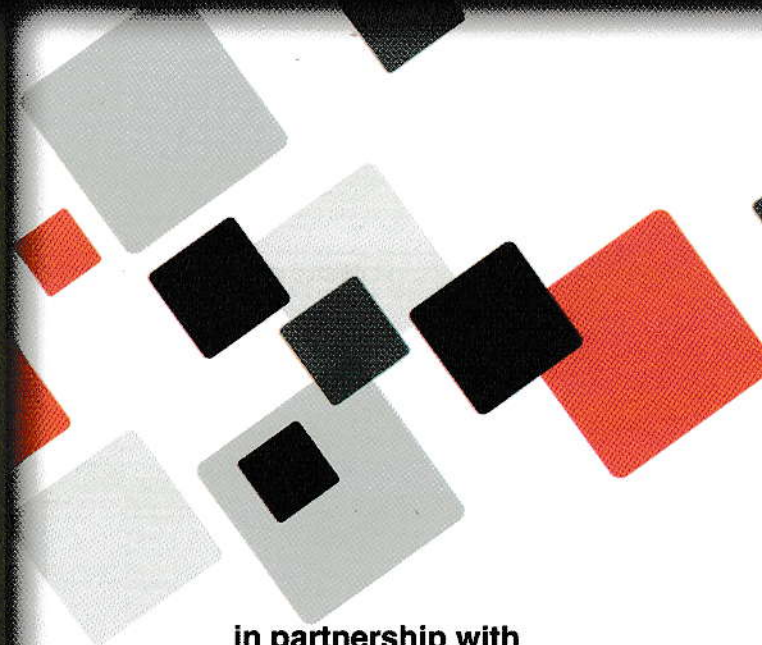
St. Paul University Philippines

in Collaboration with



4th SPUP International Interdisciplinary Research Conference 2019

“Creating
Educational
Pathways
in the Fourth
Industrial
Revolution”



in partnership with



MAKING A DIFFERENCE
GLOBALLY

December 12-14, 2019
Global Center
St. Paul University Philippines
Tuguegarao City

FOREWORD

On its 4th International Interdisciplinary Research Conference, St Paul University Philippines (SPUP), in partnership with the Commission on Higher Education (CHED), and in collaboration with the World Council for Curriculum and Instruction (WCCI) presents various studies, theories and practices, and perspectives that need to be explored, developed and implemented to ensure a holistic, global, lifelong and sustainable kind of education and preparation for quality life. International and local experts and specialists are tapped to discuss and give workshops on global citizenship education, internationalization and transnational education, adult learning and lifelong education, Sustainable Development Goals 2030 (UN SDGs), health education and healthcare management, new pedagogical designs and approaches to promote global education towards national and world peace and prosperity.

To keep abreast with the unprecedented changes and innovations in the educational landscape and the socio-economic systems, the International Research Conference bears the theme: "Creating Educational Pathways in the 4th Industrial Revolution." This implies the mandate for active involvement and initiative to do, create, innovate, initiate, improve, anticipate, and embark on transformative and effective educational pathways to meet the challenging tasks and responsibilities upon educators in the era of the 4th industrial revolution.

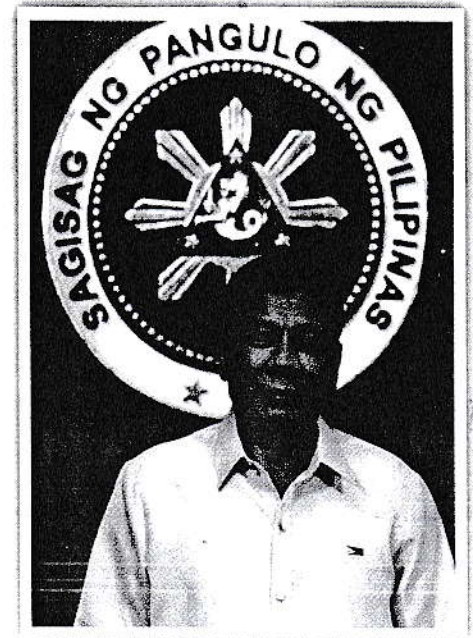
OBJECTIVES

The conference aims to:

- a. provide an educational platform for interdisciplinary discussion on the challenges and impact of the 4th industrial revolution;
- b. engage in professional networking and share research, innovative models, creative pedagogical designs, new paradigms and educational pathways for the 4th industrial revolution;
- c. undertake workshops and discussions on global citizenship education, global health education and healthcare management, internationalization in education, peace education, adult learning, and the Sustainable Development Goals 2030 for transforming the world; and,
- d. come up with collaborative research projects and training programs on new educational pathways, strategies and approaches in the 4th industrial revolution.



MALACAÑAN PALACE
Manila



My warmest greetings to St. Paul University Philippines (SPUP), Tuguegarao City as it holds its 4th International Interdisciplinary Research Conference.

Our academic institutions must pursue continuing research and knowledge-sharing to create better educational pathways for learners. I am thus delighted to know that SPUP Tuguegarao City is hosting this conference to bring together professionals from various backgrounds to discuss opportunities and challenges in education in light of the Fourth Industrial Revolution.

This year's theme is relevant as it allows us to rethink our paradigms for research and teaching in the context of modern-day advancements. I trust that the participants will actively participate in discussions on crucial issues such as global citizenship education, internationalization in education, peace education and adult learning among others.

In this era of change, I encourage you to work together as we build a more equitable, inclusive and progressive tomorrow for all.

I wish you a meaningful event.


RODRIGO ROA DUTERTE



COMMISSION ON HIGHER EDUCATION
Manila

MESSAGE

My warmest greetings to St. Paul University Philippines (SPUP), Tuguegarao City as it holds its 4th International Interdisciplinary Research Conference on December 12-14, 2019 at the Global Center, St. Paul University Philippines, Tuguegarao City, Cagayan.

I commend SPUP for conducting this event, with the theme, “Creating Educational Pathways in the Fourth Industrial Revolution”. The 4th Industrial Revolution is a confluence of advancements in various fields like artificial intelligence, biotechnology, nanotechnology, big data, genomics, 3D printing, material science, among others. Universities are also becoming diverse due to various needs, cultural backgrounds and pluralistic perspectives of both learners and teachers.

The 4th Industrial Revolution is a prospect for CHED and higher education institutions (HEIs) to work together and collectively develop a strategy that will maximize the benefits offered by an era of fast-paced technology. It is an opportunity to strengthen our capacity to deliver quality education to students and produce globally competitive graduates.

CHED stands with SPUP in this continuous journey for innovation and excellence in delivering quality education. I wish you all a productive conference. May this event open wide-ranging discussions where ideas and trends on various related fields co-create a sustainable future for all of us.

Congratulations and Mabuhay!

J. PROSPERO E. DE VERA III, DPA
Chairperson, Commission on Higher Education



St. Paul University Philippines
Tuguegarao City, Cagayan

MESSAGE



The 4th SPUP International Research Conference is a milestone convergence of local and international leaders, educators, policymakers, professionals and researchers. On behalf of St Paul University Philippines, it is my joy and privilege to welcome all the delegates to this most-awaited event. The relevance of research is demonstrated by the remarkable research-driven breakthrough innovations in science and technology, business and industry, communications, education, medicine and healthcare, and in all aspects of life. Indeed, this international research conference holds many great ideas and inspiring studies for all the participants to learn, share, and apply in their respective careers, specialization and endeavors.

The fourth industrial revolution is now part of our reality. Consequently, we are confronted with the challenges and opportunities, disruptions and solutions, and the unfolding responsibility to create educational pathways in the 4IR that would ensure productive manpower, sustainable development, and social transformation in national and global contexts. As such, let us unleash our research DNA and relish the discoveries, significant learning, and creative insights that we would gain. Hopefully, we can truly make a difference in our quest to meet the current challenges and future demands in our transforming world.

Kudos to the organizers, speakers, and research presenters for making this conference an interesting blend of new knowledge and perspectives, interdisciplinary enrichment, intercultural connectivity, enhanced networking, and springboard of innovations. The myriad of research findings and best practices would likely pave the way towards the betterment of educational systems, socio-economic structures and the quality of life.

The plenary sessions and concurrent presentations are laudable and scholarly. As participants and presenters, we have a pivotal role and positive impact in promoting the culture of research and development. To be research savvy is an asset in our knowledge-based economy. May God's guidance and wisdom assure us a meaningful and productive discourse and interaction with colleagues in traversing the 4IR.


Sister Merceditas O. Ang, SPC
University President

PLENARY SPEAKERS



Dr. Swee-Hin Toh, B.Sc (Hons), Dip. Ed., M.Ed., PhD is a Professor Emeritus of the Department of Educational Policy Studies at the University of Alberta, Canada and a Visiting Fellow at the Center for Peace Education of Miriam College, Philippines. He is the winner of the UNESCO Prize for Peace Education for the year 2000 in recognition of his pioneering work in promoting peace education in various countries including Uganda, South Africa, Jamaica, Japan, the U.S.A., and — in particular — the Philippines, where his humanitarian efforts in Mindanao have helped ease conflicts among Muslims, Christians, and the Philippine army. The prize, which is awarded annually by the United Nations, recognizes long-standing contributions to education in peace-related fields.

Dr. Swee-Hin is involved in teaching, research, professional development and social action in education for a culture of peace, human rights, sustainable future, intercultural education, interfaith dialogue, and Global Citizenship Education. He has also published various books on Peace Education, Peace Building, Globalization, and Global Citizenship Education among others.

Moreover, Dr. Swee-Hin Toh is considered an expert in the fields of Peace Education, Global Citizenship Education, Multiculturalism, Teacher Training, Human Rights Education, Interfaith Dialogue, Transformative Pedagogy, Critical Pedagogy, and Education for Sustainable Futures.



Att. Lily Freida Macabangun-Milla is the OIC Deputy Executive Director and concurrently Director III of the International Affairs Staff of the Commission on Higher Education of the Republic of the Philippines. She is also acting Secretary-General of the University Mobility in Asia and the Pacific (UMAP) Philippines National Secretariat, Chair of the Asian International Mobility for Students – Philippines, the ASEAN Socio-Cultural Community (ASCC) Focal Point for higher education in the Philippines, and CHED's alternate representative to the Asia Pacific Economic Cooperation (APEC) Human Resource Development Working Group (HRDWG), among other representations. She also served as the University Legal Counsel for the University of the Philippines System from 1999 to 2001 and later became Chief of the CHED Legal Service, the Director of the CHED Office for State Universities and Colleges and Local Universities and Colleges' Concerns.

As a lawyer she served at the Philippine Senate as a Chief Technical Officer in various offices in the Philippine Senate from 1993 to 1996. Atty. Milla was also a Court Attorney III at the Supreme Court of the Philippines and had stints in the private sector as an Internal Legal Counsel for Landco Pacific Corporation and the National Federation of Labor.

Atty. Milla has advanced the internationalization of higher education in the Philippines through her significant representations in international conferences, conventions and educational fairs which led to the formulation of policies, standards, guidelines and roadmap on internationalization of Philippine higher education. She is also a champion for the development and institutionalization of adult education in higher education in the country.



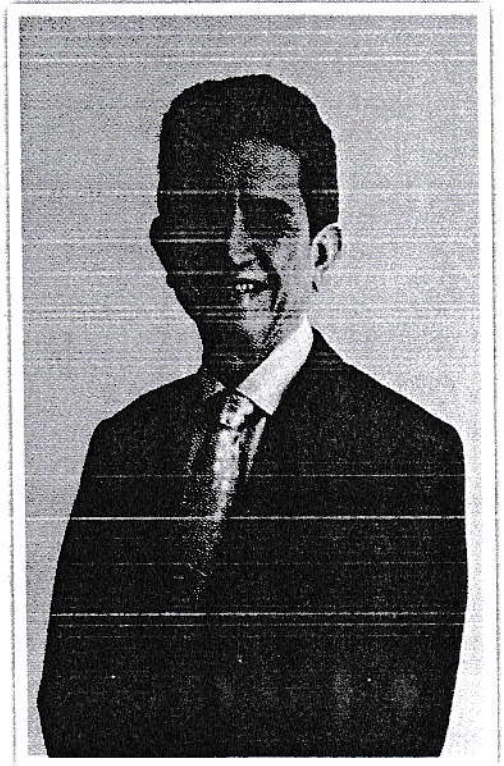
PLENARY SPEAKER

Prof. Federico “POCH” M. Macaranas, PhD is a Former Undersecretary of the Department of Foreign Affairs of the Republic of the Philippines and is now Adjunct Professor at the Asian Institute of Management; Program Director, Top Management Program for CHED HEIs/SUCs; Program Director, Regional Integration in Asia focus on Education; Program Director, AIM-Yale University, Advanced Management focus in Asia; Professor, MScIB, EMBA. Prof. Macaranas is part of the core faculty of the Washington SyCip Graduate School of Business whose career spans in the fields of academe, business and governance.

In the government sector, he assumed several positions in the Department of Foreign Affairs: first as Assistant Secretary for Foreign Affairs during the Corazon Aquino administration where he helped formulate and implement the “Development Diplomacy Thrust” of the government; under the Fidel Ramos administration, he became Undersecretary for Economic Affairs and served as Chairman of the 1996 Senior Officials Meetings of the Asia-Pacific Economic Cooperation (APEC) taking charge of the overall assistance to the Ministerial Meetings and the Subic Summit; in 2001, Gloria Arroyo conferred on him the Gawad Mabini Dakilang Kamanong Award, the highest award given by the Philippine government for diplomatic service.

Prof. Macaranas is former Dean of Center for Development Management; Executive Director of AIM World Bank Center; Executive Director of AIM Policy Center; Director for ASEAN 2015 Project; and Director of AIM-APEC BAC GVC Study 2015 at the Asian Institute of Management. He is also former Economics and Finance Professor at the Manhattan College New York and Adjunct Professor at the Columbia University and Fordham University as well as Former Finance and Investment Consultant of Wall Street, New York.

With his credentials and countless achievements, Prof. Macaranas remains to be one of the sought-after international speakers and lecturers on globalization, economics, policy & governance, and leadership.



PLENARY SPEAKER



Dr. Samuel D. Bernal, PhD, MD, MBA, JD, LLM is an Adjunct Professor of Business and Management at the Asia Pacific Institute of Management and concurrently Professor Emeritus of Medicine at the University of California at Los Angeles (UCLA) School of Medicine and Visiting Professor at the Far Eastern Federal University School of Law in Vladivostok, Russia; Ateneo de Manila University – College of Science, Department of Chemistry; and at the University of Santo Tomas School of Medicine. He is former Assistant Professor of Medicine at the Harvard Medical School and Associate Professor at the Boston University – School of Medicine.

Dr. Bernal is currently Attending Physician, Division of Hematology and Oncology, Cedars-Sinai Medical Center, Los Angeles, California and concurrently Adviser and Consultant for Technology and Innovation at the Institute of Personalized Molecular Medicine, The Medical City, Manila, Philippines. He has held various appointments and positions over the years such as Director of the Cancer Center at Greater Los Angeles VA Health System; Chief for the Division of Hematology and Oncology, U.C.L.A. San Fernando Valley Program; Attending Physician at the University Hospital of Boston University Medical School; Associate Physician at the Dana-Farber Cancer Institute, Harvard Medical School; and Associate Physician at the Brigham and Women's Hospital, Harvard Medical School. He also practiced his Law Profession in the USA, Czech Republic and in the Philippines and is a Member of the Member of the ASEAN Law Association and the International Law Association.

A Filipino national educated in the USA, Dr. Bernal has founded and been affiliated with various organizations such as Founder and Chairman of GlobeTek Pro International; President of the Los Angeles Boston BioResearch Fund, Los Angeles, California, USA; President of GlobeTekPro, based in Prague, Czech Republic; President of Daba International Technology Company, based in Riga, Latvia; Chairman of GlobeTek Science Foundation, based in Manila, Philippines; President of Science and Technology Action Network for Development (STAND) based in Manila, Philippines and Prague, Czech Republic; Chairman of the International Institute of Law and Medicine (IILM) based in Salzburg, Austria; President of the Philippine Association in Europe, based in Prague, Czech Republic and Legal Counsel and Co-Founder, Global Filipino Diaspora, Los Angeles, California, USA.

PLENARY SPEAKER

Dr. Yazrina Yahya is the Director of the Corporate Communication Center and an Associate Professor of the Faculty of Economics and Management at the University Kebangsaan Malaysia (National University of Malaysia). Her multidisciplinary interest is due to her vast experience as former Director of the International Relations Centre at UKM and also because of her links to industry through her affiliations with AirAsia IBM, Coalition Services Industries of Malaysia (CSIM), Ministry of Education, and as a Business Executive at Renong Solution Sdn Bhd before she joined UKM.

Her major specializations are in the areas of Service Science, Information System Development, and Internationalization of Higher Education, in which her field of interests include management of internationalization, internationalization of higher education, and international education, value co-creation in developing information systems, values in e-Learning system, information system development using the service science approach. She is also an Associate Fellow at ASM, and a member of the group that develops the document Science & Technology Foresight Malaysia 2015: Emerging Science, Engineering and Technology (ESET) Study, published by ASM. Her expertise on internationalization is also recognized by ASM in which she is a member of Working Group 6: Strategic International Alliance, Academy of Sciences Malaysia.

At the international level, Dr. Yazrina is recognized for her expertise in the area of Internationalization of Higher Education and Information Technology where she has been invited as a keynote speaker by various organizations and HEIs such as ERASMUS, Commission of Higher Education (CHED) Philippines, Canadian Bureau of International Education (CBIE), EU-SHARE, ASEAN University Network (AUN), Australian High Commission, Malaysia, University Mobility in Asia and the Pacific (UMAP), Department of Education Mexico (EDOMEX), and CAMPUS France in various international conferences held globally and locally.



PLENARY SPEAKERS



Dr. Matin Royeen holds a Ph.D. in an Interdisciplinary Program incorporating Counseling, Psychology, Multicultural and Global Education from the University of Cincinnati, USA.

During the past four decades, Dr. Royeen has been involved in higher education, business, and government. Specifically, he has been involved in diversity training and multicultural education both at home and abroad.

From 2009 to 2011, Dr. Royeen served as a Senior Civilian Cultural Advisor in his native country of Afghanistan. In this role, he worked to bridge the cultural gap and address cultural misunderstandings between the USA-NATO and the leadership of the Islamic Republic of Afghanistan.

In addition to teaching in health sciences in several universities, Dr. Royeen served as Dean of Student Affairs at the Roanoke College of Health Sciences 2000-2002. He has co-edited the book "Culture in Rehabilitation: from Competency to Proficiency" which was published by Prentice Hall in 2006. In addition to writing and some publications, Dr. Royeen has conducted numerous workshops on culture, diversity, and inclusion in academia, business and government.



Mr. James Moore, MSc TESOL, is a Curriculum Developer and English Language Teacher at the Ying Hai International School after serving as Examination Writer, Examiner and Chief Oral Examiner in Brunei Darussalam appointed by the Ministry of Education.

In his educational stint, Mr. Moore has developed and delivered courses on Global Perspectives, English as a First Language, English as Foreign Language, Technology, Reading, English Grammar and other e-Materials on English Language Teaching and Learning. He is also a trainer on TOEFL.

Mr. Moore obtained his Master of Science in Teaching English to Speakers of Other Languages (TESOL) at the University of Stirling, Scotland and BA in Business Economics from Paisley University Scotland. He also special studies on PGCE Business Studies and English Language Teaching to Adults.



PLENARY SPEAKERS

Mr. McAllen Reonel Sebastian “MARS” Cacacho is currently a Cyber Security Engineer for a UK based Cyber Security company. He used to be Antivirus Engineer and Security Journalist for Trend Micro, Virus Coordinator for TrendLabs’ Global Threat Response Center and also worked as an IT Officer for the Department of Education, Tuguegarao City Division. He is also the Founder and Chief Executive Officer of HackTheNorth.ph, a non-profit organization which brings the Elite IT Conferences to North PH and TCON (Tuguegarao Consortium - the only IT Security Conference in the area). As Microsoft IdeaSpace Ambassador, Mr. Cacacho has inspired thousands of IT experts and enthusiasts in Southeast Asia.



Mr. Cacacho was given recognition by Intel’s International Science and Engineering Fair, United Nations Environment Programme, United Kingdom’s Global Youth Awards and Japan’s Students Science Awards because of his contributions to Science and Technology. At the age of 12, he was awarded as Outstanding Young Scientist in the country for a Thermometer he invented. He was awarded as one of the Ten Outstanding Youth Leaders (TOYL) of Tuguegarao in 2003 and was given a Presidential Merit as one of the Ten Outstanding Students of the Philippines (TOSP) for 2008 because of his college achievements focused on leadership, social responsibility and academics at SPUP. In 2018, he was distinguished as one of the Pamarigans (Role Models) of Tuguegarao City as was designated as Rainmaker and Lead Adviser for Start-up initiatives in Cagayan Valley by the Department of Information and Communications Technology.

He currently holds Global IT Certifications such as Microsoft Certified Professional (MCP), Microsoft Certified Technology Specialist (MCTS), VMWare Certified Associate (VCA), Trend Micro Certified Antimalware Professional (TCAP), Trend Micro Certified Cyber Security Professional (TCSP), EC-Council Certified Network Defense Architect (CNDA) and Certified Ethical Hacker (CEH).



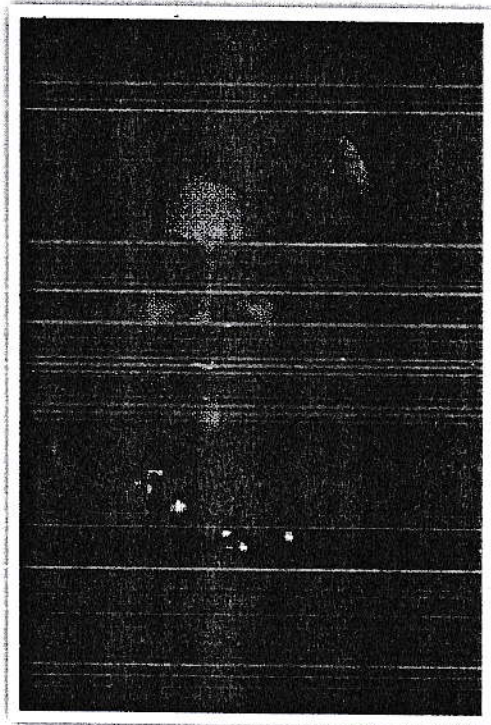
Dr. RENE “REB” ESTORQUE BERSOTO is a Consultant at Asian Consulting and Training Group at Asian Institute of Management (AIM), Guest Lecturer at Batangas State University Graduate School – CTE-GS and CABEIHM-GS, Visiting Lecturer at St. Paul University Philippines (SPUP) – Graduate School, and Co-Facilitator for the SPUP-Perpetual Succour Hospital School of Global Healthcare Leadership. He writes a weekly column, REBuilding Society for CALABARZON community paper. He’s also a member of Armedsafe Safety and Rescue Training Center, Manila, as Executive Adviser.



He is a Member and Secretariat of the ASEAN Society Philippines with former President Fidel V Ramos, former ASEAN DG, Amb. Delia D Albert, former DFA Usec and 1996 APEC SOM Chair, and AIM Professor, Dr. Federico M Macaranas, DLSU Professor and former DFA Usec Manuel Teehankee, Amina Rasul-Bernardo, President of Philippine Center for Islam and Democracy (PCID), the late Sen. Leticia R Shalani, former DFA ASEAN Director, now Chief Executive of EON The Stakeholder Relations, Junie del Mundo, Philippine Permanent Representative and Ambassador to ASEAN, Amb. Beth Buensuceso.

His subject of studies and research interests include Public Relations, Strategic Communications, Development Economics, Transnational Education, Global Value Chains, Social Enterprise, Regional Integration, Education in the 21st Century, Cultural Heritage (i.e. Batik Industry of Indonesia), and Family Corporations (i.e. ACCM FamCor of Timmy Cruz).

PLENARY SPEAKER



Maria Bryce Fabro, Ph.D. is the Chief Executive Officer of the BRYCE Inspired Careers. She obtained a PhD in Humanities and Masters Degree in Entrepreneurship at the Ateneo Graduate School of Business. She is a published author and an advocate on building the employability skills quotient (EMQ) of graduating students in the Philippines and the world. As CEO and President of BRYCE Inspired Careers, she has been privileged to present her paper, "The Science of Employability in Bangkok Thailand in 2016 among 71 ASEAN Universities through the United Board".

She founded the Higher Employability Result and Opportunities (HERO), a Singapore-based company that provides opportunities for universities across the globe to collaborate with solution providers and industries. HERO Summit has footprints in 5 countries: Singapore, Canada, United Kingdom, Japan and Philippines.

PROGRAM OF ACTIVITIES

Day 0: December 11, 2019 – Wednesday

2:00–5:30 PM REGISTRATION

Day 1: December 12, 2019 – Thursday

8:00AM–1:30 PM

REGISTRATION

8:30–11:00AM

PRE-CONFERENCE

“Research Presentation Literacy”

Dr. Maria Bryce Fabro

COO, Ascendens Asia

Venue: 3rd Floor, Global Center

CONFERENCE PROPER (*Venue: 2nd Floor, Global Center*)

1:30–2:00 PM

OPENING CEREMONIES

Entrance of Colors

Philippine National Anthem

Ecumenical Praise

Acknowledgment of Participants

Opening Salvo

2:00–2:10 PM

WELCOME REMARKS

Sr. Merceditas Ang, SPC

University President

2:10–3:00 PM

KEYNOTE ADDRESS

“Educational Pathways in the 4th Industrial Revolution”

Atty. Lily Freida M. Milla, CESO IV

Deputy Executive Director

Director III, International Affairs

Commission on Higher Education

3:00–4:30 PM

PLENARY SESSION 1

*“Nurturing Global Citizenship: Transcending Industrial Revolutions
toward a Spiritual Revolution for Humanity & Mother Earth”*

Dr. Swee-Hin Toh

President, World Council for Curriculum & Instruction (WCCI)

Laureate, UNESCO Prize for Peace Education (2000)

4:30–5:00 PM

AWARDING OF CERTIFICATES OF APPRECIATION &
TOKENS, PICTURE TAKING OF GUESTS W/ PARTICIPANTS;
COFFEE BREAK

5:00–6:30 PM

CONCURRENT SESSION 1 / RESEARCH PRESENTATIONS

6:30–8:00 PM

WELCOME RECEPTION & NETWORKING
Venue: SPUP Student Center**DAY 2: December 13, 2019 – Friday**

7:00–8:00 AM

REGISTRATION

8:00–8:10 AM

OPENING PRAYER

8:10–10:00 AM

PLENARY SESSION 2

*“Breakthroughs in Health Education and Healthcare in the
4th Industrial Revolution”***Dr. Samuel Bernal**Former Associate Professor in Medicine, Harvard University, U.S.A.
Professor, University of California in Los Angeles, USA

10:00–10:30 AM

HEALTH BREAK

10:30 AM–12:00 PM

CONCURRENT SESSION 2 / RESEARCH PRESENTATIONS

12:00–1:30 PM

LUNCH

1:30–3:30 PM

CONCURRENT SESSION 3 / RESEARCH PRESENTATIONS

3:30–4:00 PM

HEALTH BREAK

4:00–5:30 PM

PLENARY SESSION 3

*“Sustainable Development Goals 2030:
Becoming a Sustainable Global Community”***Dr. Federico Macaranas**

Professor, Asian Institute of Management

5:30–6:30 PM

MOA SIGNING WITH INTERNATIONAL PARTNERS

DAY 3: December 14, 2019 – Saturday

7:00 – 8:00 AM

REGISTRATION

8:00 – 8:15 AM

OPENING PRAYER

8:15AM-9:30AM

PLENARY SESSION 4

*"Internationalization and Transnational Education:
Innovative and Collaborative Strategies and Models"*

Dr. Yazrina Yahya

Director, Corporate Communication Centre
National University of Malaysia

9:30-10:00 AM

HEALTH BREAK

10:00-12:00 AM

CONCURRENT SESSION 4 / RESEARCH PRESENTATIONS

12:00 - 1:30 PM

LUNCH BREAK

1:30-3:00PM

PLENARY SESSION 5

*"Peace Education and Intercultural Understanding
in a Globalized Society"*

Dr. Matin Royeen

Consultant, Rush University Medical Center, Chicago
Cross-Cultural Consultant & Director of United Alliance
Global Solutions

3:00-3:15 PM

REFRESHMENTS

3:15-5:00 PM

PANEL DISCUSSION

"New Technologies in the Delivery of Adult and Lifelong Learning"

James Moore, MSc TESOL

Educational Consultant, Brunei, Egypt, Taiwan, Oman
National Examination Writer and Head Oral Examiner,
Center for British Teachers - Brunei

Dr. Rene Bersoto

Consultant, Asian Consulting and Training Group
Asian Institute of Management (AIM)

Mr. Mc Allen Reonel Sebastian Cacacho

Founder, HackTheNorth.ph | Cyber Security Engineer
Awardee, Ten Outstanding Students of the Philippines 2008

5:00-5:30 PM

CLOSING CEREMONY

Closing Remarks
(Ways Forward)

Dr. Agripina B. Maribbay

Vice President for Academics, SPUP

Closing Prayer

Group Picture-Taking

Distribution of Certificates

DAY 4: December 15, 2019 - Sunday

LOCAL TOUR (OPTIONAL)

Concurrent Session / Research Presentation 1: December 12, 2019; 5-6:30 PM

Plenary Hall 1	Plenary Hall 2	Plenary Hall 3	Review Room 1	Review Room 2	Business Incubation Lab	Teleconference Room
<p>International Collaborative Development Programs of Tarlac Agricultural University</p> <p><i>Dr. Christine N. Ferrer</i></p>	<p>Development and Validation of Quality Caring in Nursing Tool for Indonesians</p> <p><i>Chatarina Hatri Istarini, PhDNS; Josephine D. Lorica, DPA, RN</i></p>	<p>Tentative Approach to Liu Miaoqing's Thoughts on Translation</p> <p><i>Zeng Lizi</i></p>	<p>Implementation of the Classroom: Its Perceived Effects and Challenges</p> <p><i>Estela L. Carriño, Ed.D., Ceso IV</i></p>	<p>Challenges and Opportunities in Higher Education 4.0: A Literature Review</p> <p><i>Pilar B. Acorda, DME</i></p>	<p>Meaningful Approaches to Learning World Systems towards Building Bridges of Understanding</p> <p><i>Genevieve Balance Kipang, Ph.D</i></p>	<p>Integrating Technology in Mixed Methods Research as a Novel Approach in Nursing Research</p> <p><i>Tetsuya Tanioka, RN, PhD, FAAN; Fenibetriana, RN, MSN; Rozzano C. Locsin, RN, PhD, FAAN; Yuko Yasuhara, RN, PhD; Hirokazu Ito, RN, PhD; Kyoko Osaka, RN, PhD</i></p>
<p>Countermeasures of International Exchange and Cooperation in Human Provincial Higher Vocational Colleges</p> <p><i>Zeng Yihua</i></p>	<p>Development and Validation of a Caring Empathy Assessment Tool for Indonesian Nurses</p> <p><i>Wiwain Martiningsih, PhDNS</i></p>	<p>Rhetoric of Secondary School Paper Editorials</p> <p><i>Gynelle D. Follante, PhD</i></p>	<p>Effectiveness of the Planning Process of DepEd Region 2</p> <p><i>Francis Deo T. Ventura, PhD</i></p>	<p>Construction of "Integrating Inside and Outside System" in College Physical Education Curriculum</p> <p><i>Luo Yueping</i></p>	<p>Active Participation in Peace and Politics as a Christian Demand: Experience of Priests as Politicians</p> <p><i>Gladiolus Gatdula, PhD</i></p>	<p>Shedding Light on Climate Change as Significant Risk Factor towards Development of Coronary Artery Disease among Elderly Clients: Basis for Enhancing Primordial Prevention</p> <p><i>Karen Mae S. Alcantara, MSN</i></p>
<p>Nurses' Level of Awareness on ASEAN Integration, Its Prospects through AEC Policies and Opportunities through ASEAN MRAon Nursing Services</p> <p><i>Amiel Francisco Reyes, RN, MSN, LPT</i></p>	<p>Musculoskeletal Management using Transcutaneous Electrical Nerve Stimulation Machine and Local Pain Relievers</p> <p><i>Harlean S. Lim</i></p>	<p>"Why I Don't Speak Like Mom and Dad": Language Identity, Maintenance and Shift of IP Students</p> <p><i>Josie Jordan Gineta-Rosete</i></p>	<p>Implementation of DepEd Order No. 40, S. 2012: The Case of Sta. Teresa Elementary School</p> <p><i>Zenaida O. Quilendermo, PhD</i></p>	<p>Impact of Reflective Journal Writing as Learning Tool for Personal and Professional Development</p> <p><i>Carmela V. Perez; Jamil Al-Walid B. Accad; Lucila B. Beckham; Winny D. Dalit; Jerome J. Eser; Darryl C. Locañan; Anna Clarissa C. Panes</i></p>	<p>Mainstreaming Arts in Global Citizenship Education</p> <p><i>Allan Peejay M. Lappay, PhD</i></p>	<p>Knowledge and Beliefs on HIV-AIDS among Students of Medical Colleges of Northern Philippines and International School of Asia and the Pacific</p> <p><i>Louise V. Cabling, RN, MAN, LPT</i></p>

Competitiveness and Comparability Study of Philippine Nursing Institutions and Neighboring Countries: An Organizational Performance <i>Belinda M. Capistrano, MAN, RN; Wilhelmina Z. Atos, PhD, RN</i>	Transition Readiness Tool for Curriculum Change for Nurse Educators <i>Maria Socorro C. Domingo</i>	Effectiveness of Phone-Kit in Enhancing the Phonemic Awareness of Grade I Pupils in Mother Tongue Iloko <i>Ahilyn C. Danguluan, Ph.D.</i>	Development of OBE-Based Teaching Guides for Teacher Education Courses <i>Agripina B. Maribboay, PhD</i>	Students Awareness on Educational Tour Policies (CMO#17 S.2012) <i>Ficente D. Carrillo Jr.</i>	Moral Competency Level of School Leaders in Selected Catholic Schools in Cavite, Philippines <i>Mariano Thomas S. Ramirez, EdD</i>	Lived Experience of Select Healthcare Providers on Measles Vaccine Hesitancy Among Community Dwelling Residents <i>Norilyn Limblanco, RN, MAN; Aira Jireh F. Abuda, RN; Maria Karmela S. Digma, RN; Shan Pauline Dg. Manarang, RN; Ellah Trixie E. Sarroca, RN</i>
Ethnography of Intercultural Education: A Textual Analysis of Cross-Sectional Textbooks of a Catholic University <i>Ronel P. Dela Cruz, PhD</i>	Caring of Clients with Chronic Illnesses: Nurses' Attitude At Selected Hospitals in Cabanatuan City, Philippines <i>Kristine Abegail M. Gamiao</i>	MTB-Ibanag: A Retrospect of Its Implementation in SDO City of Ilagan <i>Virginia A. Bergonia</i>	Prospects and Challenges of Ubiquitous Learning in Graduate Education <i>Inicia C. Bansig, PhD</i>	Effects of Brain Hacking on Student Learning <i>Maries T. Fontanilla</i>	"Be Aware": An Android-Based Virtual Reality Game on Disaster Preparedness and Response Training <i>Francis Xavier Castilla; Mark Drexler Magno; Razele Anne Villameva; Elcid A. Serrano</i>	Awareness Level of Barangay Bahiag, Peñablanca, Cagayan on Department of Health Programs <i>Reil Genesis C. Mandac; John Michael I. Unipa</i>
Skill Application and Analysis of Male's Matches in Semifinal of World Karate Competitions <i>Hsu Peng-cheng; Chen Yu-ten</i>	Periodic Athletic Training on Swimmers' Physiological Changes - Sample on Fu Jen Catholic University Swimming Team <i>Huang Yi Ching; Hsu Fu Shu</i>	Students' Knowledge on Plagiarism: Basis for SPUP Honor Code Framework <i>Bryan B. Echanique</i>	SPUP Libraries in the 4 th Industrial Revolution: A New Landscape <i>Rosalinda T. Tangulan, PhD</i>	Effectiveness of Community-Based Intervention Program for Type2 Diabetes Mellitus Elderly <i>Anabel T. Bautzon</i>		

Concurrent Session / Research Presentation 2: December 13, 2019; 10:30-12 AM

Plenary Hall 1	Plenary Hall 2	Plenary Hall 3	Review Room 1	Review Room 2	Business Incubation Lab	Teleconference Room
<p>Campus Ministry in Tuguegarao Archdiocesan Schools System (TASS): Basis for a Proposed Integrated Campus Ministry Program</p> <p>Rev. Fr. Macario L. Malano, Jr.</p>	<p>Cognitive Ability of First Year Nursing Students in Major Subjects Anchored in Outcome-Based Education</p> <p>Steve M. Esteban</p>	<p>Voice of Carers: Lived Experiences of Caregivers of Dialysis Patients</p> <p>Mohammed Bien M. Kulintang, Sitteshaira M. Tukan</p>	<p>Effectiveness of Assimilating Technology in Drafting</p> <p>Ramelito R. Paler</p>	<p>Prepare Me: The Four-Dimensional Approach</p> <p>Ma. Loida M. Marquez, DM-HRM</p>	<p>Teachers' Attitudes and Reactions towards School Head - Public Schools District Supervisor SIT - in Observation Tandem</p> <p>Eden P. Malabog</p>	<p>Estimation of Economic Loss and Fatalities of M8.0 Earthquake using REDAS Simulation in Apayao</p> <p>Agustina G. Pattung; Elias Edan, Jr.; Lloyd Mark Razalan; Nathaniel Alibuyog; Leonila Bautista; Ishmael Narag</p>
<p>Fourth Industrial Revolution: Its Challenges and Imperatives on Spirituality</p> <p>Allan Peejay, M. Lappoy, PhD</p>	<p>Preparing IT Education in the Fourth Industrial Revolution</p> <p>Maria Visitacion N. Gumabay, DIT</p>	<p>Sobering Up: A Journey Towards a Renewed Life of Post Drug Rehabilitation Patients</p> <p>Regie P. De Jesus, MAN</p>	<p>Using Open Source Data Mining Tool to Monitor Classrooms Utilization</p> <p>Pedro C. Flores; Mary-Rose F. Esteban</p>	<p>Contributory Factors and Incidence of Depression among Students of MCNP</p> <p>Roseveta Q. Lopez; Marry Cris L. Calpito</p>	<p>HEJ's Compliance on Educational Tour Policies (CMO #17 S.2012)</p> <p>Vicente D. Carrillo Jr.</p>	<p>Feasibility Study on Offering Master in Business Administration with Specialization in Digital Marketing</p> <p>Antoinette Z. Lacerna, DBA</p>
<p>Level of Spiritual Intelligence of Staff Nurses in Selected Tertiary Government Hospital towards Holistic Developmental Care Plan</p> <p>Noel Miguel D.G. Caponpon, MSN, RN</p>	<p>Integration of Artificial Intelligence Technology in Curricula of Studies</p> <p>Marifel Grace Capili-Kummer, DIT</p>	<p>Quality Indicators of a Healing Garden Therapy Program in Hospitals using Delphi Method</p> <p>Agustina Sri Otri Hastuti, PhDNS; Josephine D. Lorica, DPA; Christianne Effendy</p>	<p>CITRUSGUARD: A Decision Support System for Diseases Management and Insect Pests Control using Prediction Models</p> <p>Carmelo Alejo D. Bisquera</p>	<p>Role Identity Versus Role Confusion: An Assessment on Psychosocial Development of Senior High School Paulinians of St. Paul University Iloilo</p> <p>Johmel N. Labrador</p>	<p>Wellness Profile of Schools Division Office - Marikina Personnel: Basis for Health and Wellness Program Development</p> <p>Jamilard N. Tormes, MAN, RN</p>	<p>Survey and Documentation of Wild Fruits, Plants, and Flowers in Apayao Province</p> <p>Allen Maydong</p>
<p>Recovery from Drug Dependence: A Case Study on the Use of Faith-Based Approach in Treatment of Drug Dependence</p> <p>Mariano Thomas S. Ramirez EdD; Manjackkal Kizhakkal Jijimon Joy, MA</p>	<p>Mobile Device Preferences and Common Internet Activities among Nursing Students in a Private Tertiary School in Valenzuela City</p> <p>Aida V. Garcia, MAN, RN; Chisom R. Ebede RN; Sheryl Jane J. Climacosa RN; Renee Angellou O. De Leon RN; Larilyn C. Mauricio RN; Rose Ann D. Ocampo RN</p>	<p>Caring: A Normative Value in Nursing Education and Practice in the 4th Industrial Revolution</p> <p>Maria Elizabeth C. Bana, DNS; Maria Girle Jordan, MSN; Miriam Pattingalan, MSN</p>	<p>Acceptability of Developed Fire Detection and Alarm System (FDAS) Trainer</p> <p>Patrick Don Raimel P. Cavaco</p>	<p>Role Identity Versus Role Confusion: An Assessment on Psychosocial Development of Senior High School Paulinians of St. Paul University Iloilo</p> <p>Johmel N. Labrador</p>	<p>Humor Therapy in Alleviating Stress and Loneliness among Healthy Filipino Elderly Men</p> <p>Fanessa O. Unali, MAN, RN; Henrex M. Mendoza RN; Jephunneh Y. Casil RN;</p> <p>Princess Lara M. Casilao RN; Ma. Isabella G. Garcia RN; Hannah Jean M. Soriano RN</p>	<p>Economic Contribution of Capital Build-Up Programs of Cooperatives in the Province of Ilocos Sur</p> <p>Dr. Melvin S. Laureta</p>

Comparative Analysis of Catholic Marriage Rites Promulgated between Council of Trent (1570 <i>Missale Romanum</i> & 1614 <i>Rituale Romanum</i>) and Second Vatican Council (1969 <i>ordo Celebrandi Matrimonium</i>) <i>Carlo Enrico C. Tinio</i>	Teaching Googled Learner: Rethinking 21 st Century Skills in the Fourth Industrial Revolution <i>Evelyn Elizabeth L. Pacquing, MST</i>	Parenting Styles, Coping Strategies, and Self-Efficacy of Teen Mothers: Basis for Caring-Based Maternal Health Resiliency Program <i>Letia D. Benito</i>	Level of Learning and Development (L&D) Program and the Effectiveness of Automated Quality Assurance, Monitoring and Evaluation (QAME) of DePed Regional Office 02 <i>Ronnie P. Guilloy</i>	Self-Efficacy and Grit's Role on Academic Performance among Young Mothers <i>Claudeth U. Gamiao, PhD</i>	Occupational Stress, Work Life Balance and Job Performance of High School Teachers <i>Charlene C. Pita, LPT, RCG</i>	Accounting Profession in Industry 4.0 <i>Marjorie L. Bambalan, MBA, CPA</i>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------

Concurrent Session / Research Presentation 3: December 13, 2019; 1:30-3:30 PM

Plenary Hall 1	Plenary Hall 2	Plenary Hall 3	Review Room 1	Review Room 2	Business Incubation Lab	Teleconference Room
Online Mobile Games and Academic Performance of University Students <i>Jessie Richtie N. De Los Santos, MSIT; Eduardo Edu C. Cornillez, Jr.; Vicente D. Carrillo, Jr., PhD</i>	Corn Diseases Automated Recognition System Using Convolutional Neural Network <i>Benjamin E. Bulawit Jr.; Anthony Y. Paras, DIT</i>	Perceived Effects of Adolescent Health and Development Interventions on the Behavior of Adolescents <i>Emolyn M. Iringan, PhD; Josephine D. Lorica, DPA; Evelyn Elizabeth L. Pacquing, MST; Claudeth U. Gamiao, PhD; Lita A. Jose, MBA</i>	Capability of Dadda, Tagga, Gosind Namabhalan (DaTaGoNam) Teachers in Conducting Action Research: Basis for an Enhancement Program <i>Analiza Escala Talattad</i>	Strategies to Improve Childhood Immunization Coverages: An Integrated Literature Review <i>Amatis Y. Ismantio, Josephine D. Lorica</i>	Innovation of Culinary Arts in the Fourth Industrial Revolution <i>Gilen C. Cagurangan, DBM</i>	K-12 Classroom Assessment: Teachers' Knowledge and Practices in Secondary Mathematics <i>Kathlene Mae L. Sabado, MAEd</i>
Mobile Technologies in Education in the Fourth Industrial Revolution <i>Jesus B. Pizarro, DPA</i>	Information and Communication Technology (ICT) Literacy of School Principals <i>Arnie M. Cadiente, MAEd; Andres E. Bangon, PhD</i>	Traumatic Stressful Life Events and Coping Ways of Female Workers of the Kabul University Female Dormitory <i>Spozhmar Oriya</i>	Utilization of Media Technology in the Teaching Performance of Teachers of Tuguegarao North District: An Assessment <i>Analya Q. Cantlan</i>	Knowledge, Attitude, and Practices of Maguindanao Mothers on Child's Immunization In Pikit, Cotabato <i>Mohammed Bien M. Kidintang</i>	Tourism Sector in the Context of the Fourth Industrial Revolution <i>Marie Krizza M. Cologni, MSJM</i>	Integrating Flipped Classroom in Teaching Calculus: the Senior High School Students' Experience <i>Roldan C. Bangalan, DME</i>

Service Learning: Keeping it Alive in the FIRE <i>Eva C. Dela Cruz, DPA</i>	Quantise; Faculty Scheduling Functional Program <i>Lovell M. Abello, CPA, DBA, IP, LPT, Xero Certified, FRIRES, RIJVPF; Jean Paolo G. Lacap, DBM, DBE, RMP, AMED, FRIRES, FRIEDR, RIJVPF; Amor I. Barba, MM</i>	Correlation of Current Trends and the Inhibition of Choosing Nursing among Senior High School Students in a Public Secondary School in Valenzuela <i>Maria Sheila Mujumilla Man, RN; Michael Salvador RN; Jhelliie Gantani RN; Angelica Oliva RN</i>	TLC Technique in Improving the Letter Formation Skill of Kindergarten Pupils of Balingit Elementary School for School Year 2018 – 2019 <i>Marivic T. Mogado</i>	Mandala Art Therapy (MAT) among Filipino Children with Attention Deficit Hyperactivity Disorder (ADHD): A Multi- Method Inquiry <i>Sharon B. Cajayon RN, MAN; Michael Joseph S. Diño, PhD, MAN, RN; Daniel M. Valdez RN; Eunice John M. Medina RN; Paola Loisse De Guzman RN; John Rey Esudillo RN</i>	Food Parks in the Philippines: A Strategic Entrepreneurial Framework <i>Maria Litz Lourdes M. Paulino, DBA</i>	Correlates of Pre-Service Teachers' Disposition Towards Mathematics <i>Restituto M. Llagos Jr., DME</i>
Physical Resources of Civil Engineering Program among Government Universities In Eastern Visayas Region, Philippines <i>Benedicto T. Militante, Jr., LL.B, Ph.D</i>	Development of Browser-Based Cooperative Records Management with Loan Assessment System <i>Jessie Richie Naval De Los Santos, MIT</i>	Lifelong Learning Skills in the Fourth Industrial Revolution among Psychology Graduates <i>Anna Marie A. Hernandez, PhD</i>	An Anatomy of Profile, Challenges and Adaptation Practices of SHS Implementing Schools of the City Division of Ilagan: Implications for Local Policies and Innovation <i>Marie Rose P. Ramos, Cherry S. Ramos, EdD, CESO II</i>	"Can You Read My Mind?" Capturing the Minds and Perceptions of Parents Caring for Children with Attention- Deficit-Hyperactivity-Disorder <i>Jocelyn Tebrero, RN, MAN; Phiel Ablexis G. Garcia; Patricia Donize Y. Espinosa RN; Bryan Kenneth M. Garcia RN; Jhueloe O. Parente RN; Prince Rhudee Justin B. Porticuas RN</i>	Organizational Communication in Selected Hotels in Tuguegarao City <i>Marie Krizya M. Calagui, MSHM; Jennie Ann Canapi, MSHM</i>	PSDS Level Of Perception and Implementation on School Mathematics Programs: Basis in Formulating an Enhanced Supervision on Mathematics Instruction <i>Rommel Luyun-Libang, PhD</i>
Online Gaming Addiction: Its Relationship to College Students' Academic Performance <i>Ryan John M. Cahabaquib</i>	Epidemiological Mapping and Surveillance System of Infectious Diseases Using Spatial Data Analysis <i>Darios Alado</i>	Relating Academic Performance with Level of Conformity to Group Pressure among Paulinians <i>Caroline Mae G. Gopani; Eva T. Aldon</i>	Knowledge, Skills and Attitudes (KSAs) of Teachers in the NCBTS Domains: Basis for Policy Development <i>Judith D. Baclog, Ph.D.</i>	Filipino Nurses' Perspectives on Supporting Children during Needle-Related Medical Procedures <i>Melania Concepcion, RN, MAN; Bryan Joshua M. Tabaco, R;Ma, Cristelle Ann O. Dimapelis, RN; Stephanie Escarinas, RN; Philip Linus Gilbert, RN</i>	Environmental Virtues in St. John Paul II Village in Infanta, Quezon, Philippines <i>Rowel T. San Sebastian, PhD</i>	Improving Academic Performance in Mathematics through RMEA <i>Christopher P. Alejo</i>
Philippine Accountancy Curricula Analysis vis- a-vis International Certification Curricula towards Internationalization <i>Giged Tong- Battung, CPA, DBM; Atty. Melchor A. Battung</i>	Comparative Study between Manual Enrollment and Computerized Enrollment System <i>Greg S. Campos</i>	Depression and Coping Mechanisms of Overseas Filipino Workers <i>Johmel Labrador</i>	SBM Project Imo (Ilaguñong Nagkakaisa at Nagtutulungan Tungo sa Dekalidad na Operasyon Sa Paaralan): An Implementation Review in SDO City Of Ilagan <i>Nicole Kris L. Silva; Jiliet V. Gimpol; Eden B. Baltazar</i>	Knowledge and Behavior towards HIV/AIDS among Young Adults <i>Gilbert Anthony O. Abano, RN, MAN</i>	Effectiveness of PA- Based Assessment in Teaching TLE-IA to Grade 6 Learners of Sta. Teresita Central School <i>Noemi T. Subal</i>	Twenty-First Century Skills in Teaching and Learning Trigonometry <i>Beatrice Dejaño-Mabibat</i>

Integrated Industry-Based Academic Model for Marketing Education: Value Innovation for St. Paul University Philippines <i>Jarvie D. Bacani, DBM</i>	Student Accounts Management System of Saint Tonis College, Inc. <i>Rogelio Ag-A Doctor Jr.</i>	Level of Self-Care Routine and Job Satisfaction of Guidance Advocates <i>Mico May M. Regis, RGC</i>	Itawes National High School Teachers' Delivery on Pedagogical Content Knowledge <i>Maribel Ranjo Serafica - Arellano, Ph. D.</i>	Correlation of Parental Feeding Style to Nutritional Status in Adopted Community of Karuhatan, Valenzuela City <i>Francis A. Vasquez MAN, RN; Irma Anne Cabiling RN; Teresa Andres RN; Patrick Neil Bordador RN; Rose Ann Handley RN</i>	Enhancing Chemistry Performance of Grade 9 Students of Ballesteros NHS through ⁴⁴ GivMcAlloYou [®] SIM <i>Evelyn De Austria</i>
--------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------

Concurrent Session / Research Presentation 4: December 14, 2019; 10-12 AM

Plenary Hall 1	Plenary Hall 2	Plenary Hall 3	Review Room 1	Review Room 2	Business Incubation Lab	Teleconference Room
Self-Care Knowledge, Behaviors and Practices of Hypertensive Patients: Basis for Health Promotion Program <i>Dwi Nigroho Heri Saputro, PhD; Ma. Elizabeth C. Bana, DNS</i>	Economic Contribution of Rice-Based Products in Region 02 <i>Dr. Florentina S. Dumlao; Dr. Arthur G. Ibañez; Denis V. Policar; Marigold M. Soriano</i>	Guidance Information Management System (GIMS) of Quirino State University <i>Kaycee Martinez-Gromeo</i>	Cultural Practices of Kankana-Eys toward Development of Lesson Exemplar in Understanding Culture, Society, and Politics <i>Ellen Pia L. Justo, MAEd</i>	Text Messaging in Management of Diabetics: A Meta-Analysis <i>Gerald T. Evangelista, RN, MAN</i>	Career Choice Factors: Implications to 21 st Century BS Tourism Management Curriculum <i>Franklin F. Guling</i>	Institutional Sustainability of St. Paul University Philippines using Four-Perspective of Balanced Scorecard <i>Shirley A. Enriquez, MBA</i>
Preparation and Consideration in Intermediaries during Robot Therapy for Older Adults <i>Kyoko Osaka, Teitsuya Tanioka, Yuko Yasuhara, Rozzano Loocin</i>	Emerging Business Strategies: Surviving the 4.0 Challenges <i>Charito Mannel-Guillermo, DBM</i>	Student Academic Advising System of Cagayan State University <i>Moricon P. Yadao</i>	Struggle for Land: The Alangan Mangyan's Consciousness in Ancestral Domain <i>Gladiolus M. Gatchala, PhD</i>	"You'll Get used to It": Lived Experiences of Filipino Nurses in Dealing with Death and Dying Patients <i>Potenciana A. Maroma, PhD; Jackielyn D. Mateo, RN; Maria Angelika Carlos, RN; Winstlet Rose T. Chua, RN; Kobe Bryant M. Diza, RN; Jeannifer S. Ponceca, RN</i>	Craft-Making, Tool to Enhance Remembering and Multi-Tasking Skills of Filipino Elderly <i>Caroline San Diego RN, MAN; Baby Lynn Dela Cruz RN; Dian-Kristian Barrera RN; Alyssa Gabrelle Dela Cruz RN; Jessica Dela Cruz RN; Michelle Amie Enero RN; Jobin James Rosal RN</i>	Student Research Experiences in Death and Dying Patients: Advancing Triadic Triangular Model <i>Aida I. Bautista, PhD, MAN, Leona Rose S. Obejas, Catherine T. Magpayo, Jonny A. Orbizo</i>

Health Promoting Lifestyle of Cancer Survivors: Basis for Proposed Health Promotion Program <i>Emelie J. Tan</i>	Membership Values and Business Performance of Social Enterprises <i>Daniel G. Amida, Jr., DMT</i>	Self-Survey System on Compliance of Data Privacy of 2012 Applying Data Mining Techniques <i>Paraluman Maria Fatima B. Pestio; Maria Visitation N. Gumabay</i>	Pumiyaan: Conner Conflict Settlement <i>Constancio L. Maslang Jr.</i>	Health Education and Lifestyle Training of Health Workers: Living Partnership in Diabetes Prevention <i>Crescencia M. Santos, DNS, RN; Gerald T. Evangelista, MAN, RN; Lunynging O. Marcelino, MAN, RN</i>	Level of Awareness of Apayao State College Employees on Gender Sensitivity and Gender Mainstreaming <i>Madelyne T. Maslang; Josefine B. Batugal; Lea D. Balingit; Sylvia C. Bayata; Jacinta B. Bayata; Florida Bono</i>	Nursing Students' Perceived Parenting Style and its Impact on their Professional Nursing Values <i>Evangelina F. Orata, MAN, RN; Hannah Alyana Bung, RN; Marina Consuelo Alberto, RN; Krizzel Anne Cañezal, RN; Demeily Dimaano, RN</i>
Current Situation and Issues of School Nurses' Health Education toward Health Promotion in a City in the Philippines <i>Yuko Tanaka, Kikiko Okuda, Tadashi Yamashita, Hirova Matsuo, Elizabeth C. Bana</i>	Financial Management Effectiveness through Fiscal Learning Advancement for School Heads (Flash): A Policy Study <i>Vladimir Bayso-Biclar</i>	Usability Evaluation of SMS-Based System: Basis For Systems Development <i>Jake Giabes Maggay</i>	Beliefs and Practices of Malauegs of Conner, Apayao <i>Lea D. Balingit</i>	Nurses and Workplace Shaming: A Phenomenology <i>Gerardo A. Nicolas, MAN, RN; Sharon B. Cajovan, MAN, RN; Ivy Grace Oca, RN; Kevin Poblador, RN</i>	Awareness of ASC Employees on Procurement Process (RA 9184) and its Implementing Rules and Regulation <i>Jerry Mohay; Jason Cruz</i>	Effectiveness of Drug Round Game in Improving Basic Pharmacology Nursing of Student Nurses In Valenzuela: A Quasi-Experimental Study <i>Melanie S. Cambel, RN, MAN; Marjorie Lopez, RN; Noellaine Agnieri, RN; Rachelle Anne Cruz, RN; Aiza Dela Cruz, RN; Pauline Anne Libed, RN</i>
Technology Utilization in Blood Sugar Level Control of Patients with Diabetes: An Integrated Literature Review <i>Annastasia S. Lamonge; Josephine D. Lorica, DPA, RN</i>	Financial Management Systems among Higher Education Institutions in Eastern Visayas Region, Philippines <i>Grace N. Dumrigne, CPA, D.M.</i>	Development of Computerized Student-Advising and Enrollment System <i>Greg S. Campos</i>	Leisure Activities of Agtas in Nagtipunan, Quirino Province: Implication to Education <i>Donna B. Remigio, et al.</i>	Community Support Groups on HIV: Driving Forces and Lived Experiences <i>Sylvia O. Lopez, MAN, RN; Leonard Raphael B. Calva, RN; Jazer C. Dilla, RN; Gavrilovich Kate P. Feloria, RN</i>	Perceived Effects of Role Overload on LGU Employees of Conner, Apayao <i>Sharif B. Ebon, MSHM; Gigeed Tong-Battung, DBM, CPA</i>	Effects of Learning Intervention on Students' Knowledge, Perceptions and Health Behavior on Healthcare-Acquired Infections: Basis for Advocacy <i>Carmenita R. Pacis, PhD, MAN</i>
Nurses' Mindset, Adversity Quotient, and Practice Gap across Generations: Association, Experiences, and Demographic Differences <i>Jose Henry T. Lansangan, PhD, RN</i>	Sustainable Development Goals (SDGs) of the Philippines: Education and Real Gross Domestic Product (GDP) <i>Leandro S. Estadilla</i>	Knowledge-Based System for Optimizing Corn Yield Productivity <i>Shaheen A. Navarro, Gigeed T. Battung</i>	Documentation of Malaueg House <i>Zenaida A. Cruz</i>	Community Health Improvement of a Municipality in Pampanga as Perceived by Nurses in the Barrios <i>Maria Diosol Roque Man; Dharaa Seria; Jane Flores; Reynard Gonzaga</i>	Quality of Life in an International Academic: Correlates and Nurturance <i>Jhuana C. Rivera, PhD</i>	Power of Music: A Mixed-Methods Analysis of Gospel Values Awareness among Filipino Youth <i>Frank S. Villamueva, EdD</i>
Factors Affecting Compliance with Anti-Tuberculosis Medication among Lung Tuberculosis Patients at Waena Public Health Center	Financial Management Practices of SPUP Employees and Related Factors <i>Charito M. Guillermo, DBM; Marjorie L. Bambilan, MBA;</i>	Human Germline Gene Editing: Rogue Science or The Future of Humanity? <i>Marlon Patrick P. Lofredo, PhD</i>	Migration Pattern of Kankana-Iys in Conner <i>Constancio Maslang, Jr.</i>	Effectiveness of Exercise towards Reduction of Blood Pressure among Patients with Hypertension in Kelurahan Jawa, Samarinda <i>Bernarda Teting, BSN, MSN; Ns. Samaritah Yani,</i>	Cognitive Empathy and Leadership Performance of Middle Level Educational Managers in a Philippine State University <i>Riomar G. Obliopas; Felix A. Afbale; Janette</i>	

**SOBERING UP: A JOURNEY TOWARDS A RENEWED LIFE OF
POST DRUG REHABILITATION PATIENTS**

Regie P. De Jesus, MAN
Dr. Yanga's Colleges, Inc.
regiedejesus@yahoo.com

Recovery from substance abuse involves not only the process of going through a structured treatment program at a drug rehabilitation center, but also a lifelong commitment to abstain from the use of these substances. From the nurses' perspective, this study therefore aimed to develop a model and an in-depth understanding of the post rehabilitation patients' journey towards a renewed life. The researcher utilized a Glaserian approach in conducting a grounded theory inquiry. Employing theoretical sampling, the researcher gathered self-report data through in-depth interviews and informant observations. The informants of this study were the twelve (12) post rehab patients who have been out of the rehabilitation institution for at least a year. Data saturation was reached after ten (10) informants were interviewed. Generated data were transcribed verbatim and were coded (categorized and clustered based on context). Content validation by two experts was then done to prevent researcher's personal biases from altering the codes. The journey of the post drug rehabilitation patients towards a renewed life is reflected by the 5R's of the Sobering Up model. This includes Recognizing realizations, Revisiting life goals, Relapse prevention, Reestablishing support system and Reintegrating with community. One realization that is seen to be of paramount importance is the renewal of their spirituality which is described as their most powerful motivation. Complete transition from rehabilitation (revisiting life goals, relapse prevention, reestablishing support system) to a renewed life terminates with the reintegration of the informants with the community. Based on the results, it is therefore concluded that the transformation process does not end after the completion of the structured rehabilitation program. The aftercare is equally rigorous to bridge the transition between rehabilitation and a renewed life. Moreover, spirituality has been identified as their biggest driving force to rebuild their lives. This result highlights the nurses' expanded role and responsibility in the psychological and spiritual well-being of these patients.

Keywords: post drug rehabilitation, renewed life, grounded theory, sobering up model

**QUALITY INDICATORS OF A HEALING GARDEN THERAPY PROGRAM
IN HOSPITALS USING DELPHI METHOD**

^[1]Agustina Sri Oktri Hastuti; ^[2]Josephine D. Lorica; ^[3]Christantie Effendy
Stikes Panti Rapih Yogyakarta, Indonesia^[1]; St. Paul University Philippines^[2]; Universitas Gajah Mada, Indonesia^[3]
Oktri_07@yahoo.com^[1]; jlorica@spup.edu.ph^[2]; Christatntie.ugm@gmail.com^[3]

People need hospital services because they are experiencing various health problems both physically and psychologically. Hospitalized patients experience substantial stress like pain, and other pressures associated with illness. Creating a healing environment is one of the goal of caring. Healing Garden Therapy Program (HGTP) is an important program that could be developed to support the patient's healing process. The purpose of the study was to develop quality indicators of a HGTP in Indonesian hospitals. A Modified two-round RAND Delphi procedure was conducted between January and April 2019 at two private hospitals. The participants (panelist) were chosen purposively but only 18 completed the two rounds. The Delphi method utilized semantic scale consisting of nine points. In first round, twenty panelists consisting of different professions and patients were involved to rate the appropriateness of the 65 potential quality indicators. In the second round, eighteen panelists rated the 26 potential quality indicators. Results show that the panelists considered the 64 quality indicators as valid. Panelist likewise considered majority of the items in quality indicators with strong agreement. The quality indicators were divided into 25 of structure indicators, 15 of process indicators, and 24 of outcome indicators. There are 64 quality indicators of the Healing Garden Therapy Program in hospitals, and it is suggested for pilot testing in the different kinds of hospitals.

Keywords: RAND Delphi, Healing Garden Therapy Program, Indonesia, Holistic, Caring Indicators

THE QUALITY INDICATORS OF A HEALING GARDEN THERAPY PROGRAM IN INDONESIAN HOSPITALS USING MODIFIED RAND DELPHI METHOD

Agustina Sri Oktri Hastuti
StikesPanti Rapih Yogyakarta, Indonesia
Oktri_07@yahoo.com

Josephine D. Lorica
St. Paul University Philippines
jlorica@spup.edu.ph

Christantie Effendy
Medical Surgical Nursing Department
Universitas Gajah Mada, Indonesia
christantie@ugm.ac.id

ABSTRACT

Background: Hospitalized patients particularly who facing uncertainty condition experience both physical and psychological problems associated with illness. Creating a healing environment is one of the goal of caring in order to support healing process. Healing Garden Therapy Program (HGTP) is an important program could be developed to support patient's healing process. The purpose of the study was to develop quality indicators of a HGTP in Indonesian hospitals. The purpose of the study was to develop quality indicators of a HGTP in Indonesian hospitals.

Method: A Modified two-round RAND Delphi procedure was conducted between January and April 2019 at two private hospitals. The panelist were chosen purposively. The Delphi method utilized semantic scale consisting of nine points. In the first round, twenty panelists from different professionals and patients were involved to rate the appropriateness of the 65 potential quality indicators. In the second round, eighteen panelists were rated the 26 potential quality indicators.

Result: A total of eighteen panelists considered of the 64 quality indicators face-valid. Panelist were considered majority of the items in quality indicators with strong agreement. The quality indicators were divided into 25 of structure indicators, 15 of process indicators, and 24 of outcome indicators.

Conclusion: We developed 64 quality indicators of Healing Garden Therapy Program in Indonesian hospitals, and we suggest it to be testing/piloting in many different kind of hospitals.

Keywords: RAND Delphi, Indonesia, Healing Garden Therapy Program, Quality Indicators, Caring, Holistic

THE QUALITY INDICATORS OF A HEALING GARDEN THERAPY PROGRAM IN INDONESIAN HOSPITALS USING MODIFIED RAND DELPHI METHOD

Background

One of the missions of a hospital is to provide quality health services affordable to a community in order that it can improve the health status of the community by prioritizing patient safety (Law of the Republic Indonesia Number 44 of 2009) about hospital. Therefore, hospitals must meet the requirements of location, building, infrastructure, human resources, and equipment. Likewise, the Joint Commission on Accreditation of Hospitals (JCAH) provides a requirement that patient and visitors should have opportunities to contact nature. (JCAHO, 2009). Indonesian Minister of Health Regulation No. 24 of 2016 emphasizes that the hospital must provide a garden as a preservation area for healing. The area is at least 15% of the total land area of the hospital property.

Healing Garden (HG) is an evolving concept, that is gaining popularity today (Pouya et al. , 2016) that involves the holistic healing for the patients in a hospital (Vapaa, 2002). Associated with the duties of nurses, the development of the Healing Garden Therapy Program (HGTP) is important. Besides it is able to optimize the existence of a garden around the hospital as well as to realize the holistic services for patients.

People need hospital services commonly because of experiencing various health problems both physically and psychologically.(Effendy, 2015) Hospitalized patients experience substantial stress like pain and other pressures associated with illness. Patients' stress has a variety of manifestations that work against wellness which are physiological, psychological, and behavioral (Ulrich, 2015). In addition, disease conditions in the hospital environment can affect the quality of life of the patients.

For this reason, a health care team should be aware about the problem and the needs of the patient personally.(Effendy et al., 2015) Patient-Centered Care (PCC) can be the best approach to meet this issue (Revnold, 2009). Especially, the presence of nurses is needed to explain various things and make patients feel comfortable while in the hospital. As a professional, nurses should be able to understand the need of the patients in order to enhance their quality of life.(Effendy et al.,2015)

Literature Review

Watson (2008) recognizes that nurses must be able to understand carative factor in carrying out "caring", and should have a role in creating a healing environment at all levels (physical as well as non-physical), subtle environment of energy and consciousness, whereby wholeness, beauty, comfort, dignity, and peace are potentiated. Likewise, Roger's theory (1970) is known as the Science of Unitary Human Being. According to her, humans are seen as integral to the universe. Human as a whole and environment are one, not dichotomous. She argues that nursing focuses on humans and the manifestations that arise from the human and shared environment process. On the other hand, the Theory Restorative by Ulrich (1999) indicates that the basic principle of the theory revalued around four dimensions that the garden provides: social support, sense of control, physical movement and exercise, and access to nature and other positive distraction.

Healing Garden Therapy Program is one of the ways of healing by collecting the patients in the garden for the purpose of spiritual therapy, refreshing of the mind, and increasing the motivation to heal in a comfortable and joyful situation. Therefore, patients who experience acute stress can experience significant recovery will ultimately improve the health outcome. Many studies have found that Healing Garden Therapy can contribute to healing such as physical, psychological, social, and spiritual (Hutton and Richardson, 1995; Ulrich, 2007; Toone, 2008)

Hospitalized patients who experience with the opportunity to looked into the garden through the window, had a shorter length of stay, fewer complications, less using of antibiotics and pain killers, and get a more positive response seen from the nurses' notes than those in the rooms facing the wall (R S Ulrich, 2007). The healing garden also contribute to reduces the stress of parents of hospitalized pediatric patients. Toone (2008). Barello and colleagues found that the positive experience of therapeutic gardening as a protected self-expression space, a boost for self-efficacy and a bridge between the hospital environment and the outside world (Barello, Serena, Graffigna, Guendalina, Menichetti, Julia, Sozzi, Matteo, Savarese, Mariarosaria, Bosio, Cladio, A., & Corbo, 2016). A therapeutic garden also effective to reduce stress-related diseases and contribute to be natural help therapy in the rehabilitation program (Ivarsson, C.T. & Grahn, P. (2016)

Evaluation of service quality is the key to ensuring that patient needs are met and determining interventions that must be carried out to improve services (Foebel, et al., 2015). One way to identify the good / bad service is to use quality indicators that can indicate the presence or absence of potential poor service.

There is only few hospitals in Indonesia have a Healing garden program. Yet, the program has no standard for the quality of the program.

Panti Rapih hospital in Yogyakarta and St Carolus hospital are two of some hospitals have garden and it is used for Healing Garden Therapy Program (HGTP) for hospitalized patients. This program is held every Saturday. In addition, the hospital does not have a standardized program because the program presented to patient still varies depending on the cultivity of which unit is leading like the program at the time. In both hospitals, the patients' experienced that by participating in a HGTP, they felt that they received holistic care. (Hastuti, 2017)

There is limited study has been found specifically due to quality of indicators of the Healing Garden Therapy Program for patients in hospitals. Therefore, the researcher wants to contribute in developing nursing science by making a study that will help develop a Healing Garden Therapy Program that can be applied in hospitals and adopted to local culture. In this study, the researcher developed quality indicators of a Healing Garden Therapy Program in Indonesian hospital using Modified Delphi method that included two (2) rounds.

Methodology

The study design used the Modified two-rounds RAND Delphi method to measure of expert's consensus. The Delphi method utilized semantic scale consisting of nine points. It was applied as a tool and method for consensus building using a series of questionnaires to collect data from a panel of selected participants (Habibi et al., 2014; Lindeman, 1975 as cited in Freitas, 2015). The Delphi method is a research approach to gain consensus using a series of questionnaires and the provision of feedback to participants who have expertise in the key areas (Habibi, Sarafrazi, & Izadyar, 2014; Hsu & Ohio, 2007, Levy, 2018). The research questions and aims in Delphi studies must have direct bearing on

informing practice, policy, or decision making (Brady, 2015). Furthermore, Thangaratinam & Redman, (2005) discussed that Delphi is used as a means of actually producing the guidelines, particularly when the available evidence is insufficient or conflicting. From January to April 2019, data were collected by a researcher at two private hospitals in Indonesia.

The participants (panelist) were chosen purposively. In first round, twenty panelists from different professionals and patients were involved to rate the appropriateness of the 65 potential quality indicators. In the second round, eighteen panelist were rated the 26 potential quality indicators.

Modified RAND Delphi Method

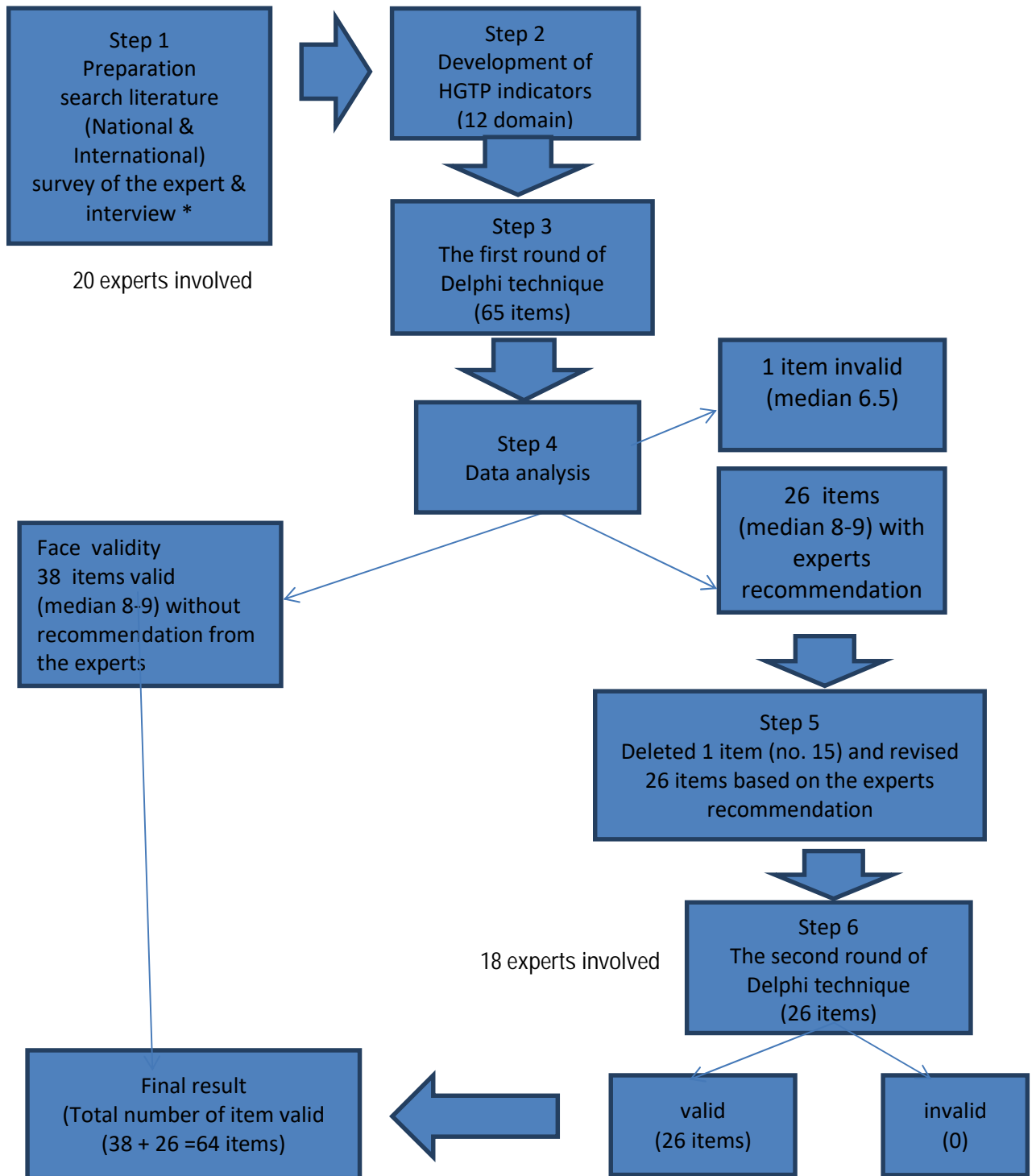
Round I. The Delphi technique questionnaire had 65 items with semantic scale consisting of nine points starts with very negative (1) until very positive (9). The survey was conducted via online. The researcher sent 65-item questionnaire to 21 participants individually. However, only 20 filled up questionnaire were retrieved. The survey was conducted via online, by sending the Google form of the questionnaire through email and WhatsApp. The next is the data analysis, After received experts' answer, the researcher computed the data and sorted out the experts' answers which included high rating (7, 8, 9), which were considered valid, the median (4, 5, 6) and low rating (1, 2, 3), which would be revised based on the experts' recommendation. In the first round with the median 8-9, we indicated 38 of 65 indicators were face valid without comments from the experts, and only one indicator indicated invalid with median 6.5. In this round, there were 26 indicators with comments from the experts and we decided those indicators should be re-rate in the second round. Researcher revised the 26 indicators with note that 1 indicator (number 15) was deleted, then four indicators (number 19 & 20), and number 23 & 24) were combined because of their similarity meaning, and the revised for 24 indicators, and two new indicators were added based on the participant's comments. This stage, the participants had chosen between point one (very negative) to point nine (very positive) according to the opinion. Then, development of the revised questionnaire related to the Healing Garden Therapy Program. The questionnaire had 26 items. It also had the same nine-point semantic scale. The survey was conducted via online, by sending the Google form of the questionnaire through email and WhatsApp.

Round II. The researcher conducted the gathering of experts' opinion related to the finalization of the indicators regarding the Healing Garden Therapy Program in the hospital. After received the participant's answers, the researcher computed the data and sorted out the participants answers which included high rating (7, 8, 9), which again will be considered valid, the median (4, 5, 6) and low rating scores (1, 2,3) were deleted.

The responses from experts which are considered as valid are those with 7, 8, and 9 (from points 1-9 of the semantic scale) in step 3 and 6. After the retrieval and the processing of the data, there are 64 indicators valid with categorical median of 8.39 (Appropriate).

The items where there is a consensus already are the items where the participants have agreed (7-9). The consensus is considered complete if there are 70% of all items declared valid in the last two rounds and without recommendation from the experts. This is in accordance with Sumsion (1998) who suggested a response rate of 70% for each round in order to sustain accuracy of the Delphi method. Thus, the tool was compiled after the Delphi technique was grouped the valid items into process, outcome and structure indicators.

Figure 1. Diagram of the RAND Delphi Method



) publish elsewhere

Result

To meet trial of quality indicators, we preferred 2 round Modified Delphi Method between January until April 2019. In round 1, 20 of the 21 experts participated. Thirteen of them were hospital employees (nurses, midwifery, hospital administration, social worker), two of them a lecturer, two as architecture, and four of them were patients. In round 2 the same group of experts were involved, 18 of the 20 experts were participated. The median age was 42 years (range 24-60)

Table 1. Characteristics of the participants in the Delphi round one (1), and the Delphi round two (2)

No	Characteristic	Category	Delphi I	Delphi II
			N 20 F(%)	N 18 F(%)
1	Sex	Male	6(30)	6(33.33)
		Female	14(70)	12(66.66)
2	Age	< 30	1(5)	0
		31-40	3(15)	2(11.11)
		41-50	11(55)	11(61.66)
		51-60	5(25)	5(27.77)
3	Educational attainment	D 3	7(35)	7(38.88)
		S1	8(40)	6(33.33)
		S2	4(20)	4(44.44)
		S3	1(5)	1(5.55)
4	Professional	Nurse	5(25)	4(22.22)
		Midwifery	1(5)	1(5.55)
		Priest	1(5)	1(5.55)
		Hospital staff	3(15)	2(11.11)
		Public Relations	2(10)	2(11.11)
		Social worker	2(10)	2(11.11)
		Lecturer	2(10)	2(11.11)
		Architecture	2(10)	2(11.11)
		Private employees	2(10)	2(11.11)
		Entrepreneur	1(5)	1(5.55)
		Total		100(100)

Table 2. Number of indicators rater as face-valid per domain modified RAND Delphi round I and round II

No	Domain	N	Round I		N	Round II		Final Face Valid	Note
			Face valid	invalid		Face valid	invalid		
1	Understanding of Healing Garden Therapy program	6	4	2	2	2	0	6	
2	Events of the Healing Garden Therapy Program at the hospital	5	4	1	1	1	0	5	
3	Facilitator to conduct of Healing Garden Therapy Program	4	1	3	3	3	0	4	
4	Patients who are considered can participate	6	4	2	1	1	0	5	2 item was combine
5	The necessary facilities	4	0	4	3	3	0	3	2 item was combine be 1
6	The benefits of following Healing Garden Therapy for the patients	7	3	4	3	3	0	7	1 item was deleted
7	The benefits of following Healing Garden Therapy for the family and visitors	5	5	0	0	-	-	5	
8	The benefits of following	6	7	0	0	-	-	7	

	Healing Garden Therapy for the hospital staff								
9	Important things to consider in Healing Garden Therapy Program	7	4	3	5	5	0	7	2 items were added (patient safety & cross infection)
10	The Challenge for hospital staff to developing	4	3	1	1	1	0	4	
11	The challenge for the hospital management	4	0	4	4	4	0	4	
12	The garden design	7	3	4	4	4	0	7	
		65	38	27	27	26	0	64	

The above table shows that there were 65 potential indicators from study literature and interview in the previous study (publish in elsewhere). In round I Delphi Method, there were 38 indicators were face valid, 27 items revised based on the experts recommendation. Researcher revised the 27 items indicator with note: one (1) item (domain The benefits for patients) was deleted, two (2) items in domain Patients who are considered can participate at the HGTP and two (2) items in domain The necessary facilities needed were combine be one for each domain. Then, in domain Important things to consider in Healing Garden Therapy were added the two (2) items, namely patient safety and attention with cross infection during Healing Garden Therapy Program (HGTP) in hospital. So, that there were 26 indicators ready to be rated in Delphi method round II.

In round II, the 26 indicators from twelve (12) domains were face valid without recommendation from the experts. Finally, the 64 indicators have been valid through the first and second round Delphi method.

Understanding of Healing Garden Therapy program

Four of 6 indicators related to the understanding of HGTP in hospitals are considered in accordance with the understanding of experts (median 8-9). Understanding related to HGPT are: HGTP is an effort healing for psychological, social, and spiritual aspect, Patients are invited to the garden to reduce boredom in their room, the garden hospital present & contribution to the healing process, A comfortable environment affect the physical and spiritual healing, and the activity is a holistic nursing effort.

Events of the Healing Garden Therapy Program at the hospital

Four of 5 indicators related to the event in HGTP at the hospital were all approved by experts (median 8-9). They expect that even in the HGTP are: Start with an introduction between patients and facilitators, Entertain with the form

of music, dance and games, education related health issues, Relaxation can be either mild gymnastic activity by physiotherapist, and testimonial is important thing to asking the patient's and family feelings.

Facilitator to conduct of Healing Garden Therapy Program

Four of 6 indicator of facilitator of HGTP were agreed by experts (median 8-8.5). To conduct the HGTP in hospital: Need a special team (with appointed and given a letter of assignment by the Director)to organize the program implementation, better involves the various professional in hospital, Nurses should be screening and preparing the patients who will follow the HGTP, and the team needs a support from hospital management.

Patients who are considered can participate

Five of 6 indicator were appropriate (median7-8.5). Patient who can include the HGTP are: in stable condition, the classification of minor ailments and no emergency, patients undergoing treatment and out patients, and patients who are willing to follow the HGTP after getting orientation.

The necessary of facilities

Three indicators appropriate (median 8-9) and needed to revised the structure of language. To implementation the HGTP needed: A sound system, game tools and chairs to sitting for the patients, family and visitors, also need the leaflet and banner that contains information associated with the HGTP.

The benefits for the patients

All of 7 indicators were appropriate (median 8.5-9) three of the indicators need to revised the structure of language. The Experts agreed that benefit of HGTP for the patients are: perceived as a healing therapy for the patients, patients feel more comfortable and have the spirit, get a new insight related of health, reduce boredom while staying in hospital, patients found to have a new friends/family. Other on that, patients feel joyful, more agreed that benefit of more "humanized"

The benefits for the family & visitor

Seven indicators were appropriate (median 8.5-9). The benefit of HGTP for the family and visitors are: ease stress while accompanying patients, give new motivation, get new insight about the health, change the negative image of an existing hospital into a positive change, and Improve the social relationship among patients and other families in the hospital.

The benefits for the hospital staff

All the indicators were appropriate (median 8-9). The experts agreed that the benefits for the hospital staff area: strengthen friendship and fraternity between hospital staff, encouragement and improved performance, as a meant of self actualization, become closer to patients and family, reduce fatigue and burnout at work, provide a new insight into and out of existing routine, and the hospital staff felt proud to be able to help in the healing of patients.

Important things to consider implementation

Four of seven indicators were appropriate (median (8-9), and another indicators were revision with added 2 indicator, there were consider to patient safety during implementation and anticipated the cross infection. Important things to consider the HGTP implementation are: needed to socialized with to all employees and existing health profession in the hospital, the event created dynamism and do not monotonous, consider the time was needed, the event of arrange joyous, need prepare snack and beverage for the patients according to their diet, and the nurses should be accompanying patients during the HGTP implementation.

The Challenge for hospital staff

Three of 4 the challenges for hospital staff were appropriate (median 8). There are: the event can presenting interestingly, how to able to harmonized of the different background and culture of the participants, how to able to collaborate with outside parties to organizing the HGTP, and how to be able to make the patients smile and not disappointed during the HGTP implementation.

The Challenge for hospital management

All the indicators of challenges for management to developing the HGTP were appropriate (median 8).

There are: how to make the HGTP as the differentiating ad superior service for other hospital, how to optimize the garden for the users, how to inform to the public about the benefit of healing garden, and how to make the HGTP as a positive promotion media for the hospital.

The garden design

Four of the indicators of the healing garden design were appropriate (median 8-8.5), and another indicators were revised based on the expert recommendation. The indicator of the garden design are: the place (ground) that can hold for many patients, a place that is flat and safe for the patients and families, the garden should be far away from the pollution and noise, the garden is clean, accessible and provides privacy for the patients, families visitors, and hospital staff, the garden can accommodate social relationship, and the garden must has variety of elements: visibility, accessibility, familiarity, quiet, privacy, and make comfortable.

Discussion

Based on the results of the literature review and in-depth interviews with experts (published in elsewhere), we validated 65 indicators for the development of HGTP in hospitals. The validate used Modified RAND Delphi method in two rounds. The 65 indicators were cover into 12 domains. In the round I the 38 indicator were valid without recommendation from the experts, then there were 27 indicators needed revised base on the experts recommendation. In the round II the 26 indicators were valid without recommendation.

If it is understood from the median value, there were 65 indicators, almost all of them (98,47) are in accordance with the categorical median 8.39. Only 1 indicator has value in uncertainly category (median 6.5).

Finally, the 64 indicators were validated. This is a consensus by experts that there is available 64 indicators from the 12 domain to develop the Healing Garden Therapy in hospital. The quality indicators were divided into 25 of structure indicators, 15 of process indicators, and 24 of outcome indicators (Donabedian,1998). Process “denotes what is actually done in giving and receiving care. It includes the patient’s activities in seeking care and carrying it out as well as the practitioner’s activities in making a diagnosis and recommending or implementing treatment” (Donabedian, 1998). Outcome according to Donabedian (1998) denotes the effect of care on the health population. Improvement in the patient knowledge and salutary change in the patients behavior are included as part of the outcome under a broad definition of health status, and so is the degree of the patient’s satisfaction with care. Furthermore, Donabedian, (1998) indicate that structure denotes the attribute of the settings in which care occurs. This includes the attributes of material resources (such as facilities, equipment, and money), of human resources (such as the number and qualifications of personnel), and of organizational structure (such as medical staff organization, methods of peer review, and method of reimbursement).

Strength and Limitation

Based on the results of the literature review study, the results of this study, and other studies increasingly known that the healing garden therapy program in hospitals has many benefits both for patients, families, and also hospital staff to reduce the boredom. HGTP can help the healing process not only the physical, but also psychological, social and spiritual. This study provide contribution to evidence related to Healing Garden Therapy Program (HGTP) in Indonesia. These quality indicators can be used by Indonesian hospital to develop the Healing Garden Therapy Program as a new service to improve the quality service and patient satisfaction.

The HGTP is one way to make the holistic effort for the patients. In Indonesia (Hastuti, 2017) found that Healing Garden Therapy as A holistic nursing. Creating healing environment is often mentioned as one goal of nursing. However, there is no formal professional consensus on what constitutes the healing environment. No research has been found specifically to develop the Healing Garden Therapy Program for patients in hospital. Amount of indicators are still enough many and hasn't recruited various types of hospitals and not yet in pilot project.

Conclusion & Recommendation

We developed 64 quality indicators of Healing Garden Therapy Program in hospitals, that can be used to measure the quality of HGTP in the hospitals. We suggest it to be testing / piloting in many different kind of hospitals.

REFERENCES

- Barello, Serena, Graffigna, Menicheti, Julia Sozzi, Savarese, Mariarosaria, Bosio, Cladio, A., Corbo, M. (2016). The value of therapeutic gargening intervention for post-stroke patient's engagement during Rehabilitation: An Exploratory Qualitative Study. *Journal of Participatory Medicine*. Retrieved from: <https://participatorymedicine.org/journal/evidence/research/2016/06/21>
- Brady, S. R. (2015). Utilizing and adapting the Delphi method for use in qualitative research, 1-6. Retrieved from: <https://doi.org/10.1177/1609406915621381>. Cara, C., & Ph, D. (n.d.).
- Donabedian, A, (1998). The quality of care. How can it be assessed? *JAMA* 260, 1743–1748. Retrieved from: <https://doi.org/10.1001/jama.260.12.1743>.
- Effendy, C., Vissers, K., Woitha, K., Paap, J. van R., Tejawinata, S., Vernooij-Dassen, M., Engels, Y., 2014. Face-validation of quality indicators for the organization of palliative care in hospitals in Indonesia : a contribution to quality improvement. *Support Care Cancer* 22, 3301–3310. <https://doi.org/10.1007/s00520-014-2343-8>
- Fitch, K., Bernstein, S.J.J., Aguilar, M.D., Burnand, B., LaCalle, J.R., Lazaro, P., Van Het Loo, M., McDonnell, J., Vader, J.P., Kahan, J.P., 2001. The RAND / UCLA Appropriateness Method User's Manual, Transformation.
- Habibi, A., Sarafrazi, A., & Izadyar, S. (2014). Delphi Technique theoretical framework in qualitative, 8–13.
- Hastuti, S., O. (2017). Healing garden therapy is a holistic Healing for the patients. *Journal IRC 4 St. Paul University Philippines*
- Hsu, C., & Ohio, T. (2007). The Delphi technique: making sense of consensus. *Practical Assessment, Research & Evaluation*, Vol 12, No.10.

Hasson F., Keeney S., and McKena H.P.(2000). Research guidelines for the Delphi survey technique. *Journal Of Advance Nursing*. 32 (4), 1008±1015.DOI: 10.1046/j.1365-2648.2000.t01-1-01567.
Retrieved form: https://www.researchgate.net/publication/12233148_Research_guidelines_for_the_Delphi_Survey_Technique

Ivarsson, C. T., & Grahn, P. (2010). Patients' experiences and use of a therapeutic garden: from a designer's perspective. *Schweizerische Zeitschrift Fur Forstwesen*, 161(3), 104–113. Retrieved from:<https://doi.org/10.3188/szf.2010.0104>

Joint Commision on Accreditation of Hospitals (JCAH). (2009). Retrieved from:<https://www.jointcommission.org/accreditation/hospitals.aspx>

CERTIFICATE OF APPRECIATION



St. Paul University Philippines in partnership with
Commission on Higher Education and
World Council for Curriculum and Instruction

4th SPUP *International Interdisciplinary Research Conference*

Theme: "Creating Educational Pathways in the Fourth Industrial Revolution"

This certificate is presented to

AGUSTINA SRI OKTRI HASTUTI, PhDNS

for having presented the paper entitled


"Quality Indicators of a Healing Garden Therapy Program in Hospitals using Delphi Method"

during the **4th SPUP International Interdisciplinary Research Conference**

held at St. Paul University Philippines, on December 12 – 14, 2019.

Given this 13th day of December, 2019 at St. Paul University Philippines, Tuguegarao City, Cagayan.


JEREMY GODOFREDO C. MORALES, Ph. D.
Overall Chair, 4th SPUP IIRC


SISTER MA. ADELINA J. PORTILLO, SPC
Director, Research and Publication


SISTER MERCEDITAS O. ANG, SPC
University President

MAKING A DIFFERENCE
GLOBALLY