The 3rd Pan-Pacific Technology-Enhanced Language Learning & Critical Thinking Meeting

University of North Texas,Denton,Texas
Jun.29 – Jul.1 , 2020

Program Book

Program Booklet of the 3rd Pan-Pacific Technology-Enhanced Language Learning & Critical Thinking Meeting (PPTELL 2020)

June 29 - July 1, 2020
University of North Texas
National Taiwan Normal University

Contents

Welcome Address from the President of the University of North Texas

UNIVERSITY
OF NORTH TEXAS®

Neal J. Smatresk, *President*

Dear Ladies and Gentlemen,

As the President of the University of North Texas, it is an honor and a pleasure to welcome this year's speakers, participants and attendees to the 3rd Pan-Pacific Technology-Enhanced Language Learning & Critical Thinking Meeting.

We at UNT have been emphasizing the importance of educational innovation. Specifically, we offer online courses, along with students' career planning and development. During the outbreak of coronavirus disease 2019, we managed to respond adequately and ensure students' rights.

This conference speaks to the urgent need to adopt technology for educational purposes and to explore how to make the most of it. It provides you with opportunities for grasping various ideas and techniques. I would like to encourage each individual attending this virtual conference to exchange academic ideas for enhancing the research culture and promoting your research work.

Last but not least, I would like to thank the organizing team for planning and preparing this conference, which is the culmination of months of hard work to provide the community with the fruitful conference. I, on behalf of UNT, hope that you enjoy this conference as both a learning and a social event. Thank you again to all of you, colleagues, members and friends for making this online conference happen.

Neal J. Smatresk

Neal J. Smatresk
President of the University of North Texas

Welcome Address from the President of National Taiwan Normal University

My Esteemed Colleagues,

Please allow me to welcome you to the 3rd Pan-Pacific Technology-Enhanced Language Learning & Critical Thinking Meeting (PPTELL 2020). Since 2018, we have kept the ball rolling, and each one of our meeting at PPTELL has been a step forward.

As one of the four oldest universities in Taiwan, NTNU is committed to excellence in education. It is also the home of one of the top Colleges of Education in Taiwan with a growing influence across Asia and beyond. In the face of COVID-19, we strive to ensure that teaching and learning can be conducted as safely and normally as possible. Thus, we have always been focusing on and supporting the development of incorporating technology into education.

This year, it is the first-ever virtual conference organized by NTNU and UNT. The COVID-19 has reminded us of the importance of having the ability to respond to difficult situations with care, support, collaboration, knowledge and technology. Despite the current circumstances, we managed to keep the event going. I am sure that this year, on ZOOM, we will be significantly inspired by ideas, just as we did in the past through face-to-face meetings.

To wrap things up, on behalf of NTNU, the Organizing Committee, which I all greatly acknowledge for their efforts in putting up this entire meeting within a short period in the face of the pandemic, I would like to express my delight over your considerable amount of interest in participating this year's PPTELL through ZOOM.

Cheng-Chih Wu, PhD
President
National Taiwan Normal University

Welcome Address from the PPTELL 2020 General Chair

We welcome you to the 3rd Annual meeting of the Pan Pacific Technology-Enhanced Language Learning and Critical Thinking. We, at the University of North Texas, are honored to partner with the National Taiwan Normal University to host this meeting virtually from June 29 to July 1, 2020. Both our intuitions felt the meeting was too important to postpone, so working with our strong support staff, we are able to bring together this complex international multi-time zone conference. We are especially happy to host this conference as the College of Information at the University of North Texas houses both Learning Technologies and Linguistics. The PPTELL conference so well illustrates shared interests of these two disciplines. It is a brand new field of investigation. The need to support second language learning is old. What is new are the many technology interventions that we can leverage to support that learning. Thank you for being here to contribute to this rapidly developing field. So many constituents will benefit from the discoveries you will make here. Thank you.

Shobhana Chelliah
University of North Texas, USA

Welcome Address from the PPTELL 2020 General Chair

PPTELL 2020 and Critical Thinking Meeting are co-hosted by the University of North Texas (UNT) and National Taiwan Normal University (NTNU) from June 29 to July 1, 2020. It includes two tracks: language learning and critical thinking in the digital era.

2020 has special meaning to almost everyone in the globe. COVID-19 pandemic has changed people's daily lives dramatically. Schools and businesses have been shut down in many countries and areas. Many international conferences are canceled or postponed due to the outbreak of COVID-19. I thank the Organizers, UNT and NTNU, the Organizing Committee, and the Program Committee of PPTELL 2020 for their dedication and full support. Without their selfless contribution and magnificent efforts, PPTELL 2020 & Critical Thinking Meeting would not occur, although it is transformed into a video conference, synchronous meeting. During PPTELL 2020 & Critical Thinking Meeting, five keynote and two invited speakers will give speeches on the cutting-edge research. In addition to parallel paper presentations, two panels will also be the highlights of the event.

Finally, I wish PPTELL 2020 and Critical Thinking Meeting a resounding success and you all an enjoyable and rewarding experience! Thank you very much!

Yu-Ju Karey LAN
NTNU TELL Lab
National Taiwan Normal University

Welcome Address from the PPTELL 2020 General Chair

PPTELL is bringing out some of the best in the College of Information promoting collaboration between linguistics and learning technologists focusing on critical thinking, hopefully one outcome of PPTELL will be increased collaboration among these two departments in the college of information.

J. Michael Spector
Department of Learning Technologies
University of North Texas

Welcome Address from the PPTELL 2020 Program Chair

Welcome to the to the 3rd Pan-Pacific Technology-Enhanced Language Learning & Critical Thinking Meeting! Established in 2018, this is the annual conference that brings together researchers, practitioners and developers - both new and experienced - who have passion for the use of technology for the learning and teaching of languages and cultures. Pan-Pacific Technology-Enhanced Language Learning promotes the innovation and sharing of knowledge and practice in areas related to technology-enhanced language learning for a vibrant audience of TELL professionals from around the globe

This year, we are featuring how to uncover the important and pressing issues in language learning and teaching in this digital and intelligent era under the theme "Expanding Global Horizon through Technology Enhanced Language Learning." Coincidently, we are not only discussing those heatedly-debating issues but experiencing the power of technology by ourselves this year, as we are meeting virtually through Zooms! This would be an eye-opening experience which brings different dynamics and excitement to our presentations and discussions. Welcome and enjoy our 3rd Pan-Pacific Technology-Enhanced Language Learning & Critical Thinking Meeting with an exceptional community of TELL professionals!

Yi-Ju Wu

Dr. Yi-Ju (Ariel) Wu
Department and Graduate Institute of English Language & Literature, Chinese Culture University, Taiwan

Congratulatory Message from the Taipei Economic and Cultural Office (TECO) in Houston

Ladies and gentlemen, it gives me great pleasure to extend my warmest greetings and congratulations to the 3rd Pan-Pacific Technology-Enhanced Language Learning & Critical Thinking Meeting (PPTELL 2020).

National Taiwan Normal University (NTNU) has been devoting time and effort on research into Chinese teaching, learning, and educational technology for several decades to great success.

The Chair of the PPTELL 2020 Conference, Dr. Yu-Ju Karey Lan, arrived in the great state of Texas as a Visiting Professor at the University of North Texas (UNT) and bridged cooperation between NTNU and UNT. I highly welcome such initiative and look forward to more cooperation.

The COVID-19 pandemic has brought immense challenges worldwide. Yet the PPTELL 2020, through its theme "Technology-Enhanced Language Learning and Critical Thinking", will prove a great model for advancing reforms and opening possibilities.

On behalf of TECO in Houston, please accept my best wishes for a successful meeting.

Peter C.Y. Chen
Director-General
TECO in Houston

Introduction

The 3rd Pan-Pacific Technology-Enhanced Language Learning (PPTELL 2020) & Critical Thinking Meeting is organized by University of North Texas (UNT) and National Taiwan Normal University (NTNU).

The conference theme is "**Expanding Global Horizon through Technology-Enhanced Language Learning and Critical Thinking**" aiming to uncover the important issues in language learning and teaching in the intelligent, digital era. "Connectivity" is a contemporary style of learning and living. By engaging in the connectivity of physical and digital worlds, how essential parts of language learning and teaching can be achieved? To answer the question, plenty of inspiring activities are included in PPTELL 2020 to enlighten cross-disciplinary dialogue and collaboration, including keynote speeches, paper presentations and poster section, and technology showcase.

PPTELL 2020 will be a platform for knowledge and experience exchange among researchers, educators, and practitioners.

Organization

Organizer:
University of North Texas, National Taiwan Normal University
Sponsor:
M-think Technology Co., Ltd., Taiwan E-Learning and Digital Content Association

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Xian Zhang, University of North Texas, USA

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Guidelines for Sessions

Instructions to all participants

Before the session

- Please download Zoom Client for Meetings or use Zoom Web via https://zoom.us/ and follow these steps:

  - Open the Zoom and click Join a Meeting.

  - In the Meeting ID field, enter the <u>Zoom Meeting ID</u>, and the <u>Meeting Password</u> for the session provided.

  - Please log in to the session using the name that you had signed up with.

  - Please ensure that you are familiar with the Zoom platform prior to the session.

- We will set a password for Zoom for security reason. DO NOT share the password with anyone unless they will also present on the meeting.

- Please show up with your real full name, participants with unrecognized name shall forbid to enter the meeting room.

During the session

- The presenter will display slides and give a presentation during the session. If other participants have any questions or comments for the presenters, please share them using the Q&A time.

- Questions will be answered towards the end of all the presentations of the session.

Instructions for oral presentations

You have 10 minutes for your presentation and approximately 4 minutes for Q&A and 1 minute for presenter change-over.

● Please prepare your presentation materials well.

● Please enter the Zoom room 10 minutes before your session starts. Please also test your video camera and microphone.

● Punctuality speaks of your respect for the audience. Your session chair will remind you when "1-minute left" and "Stop now." Please do not go over your allocated time.

● Stay in the meeting room for Q&A until all the presenters of the session completed their presentation.

Guidelines for session chairs

As a Chair for the paper sessions, you are required to introduce the presenters and help keep them on time.

● Please enter the Zoom conference room 10 minutes before your session starts.

● Confirm the attendance of each presenter. Please make sure that you know how to pronounce each presenter's name. Please also ensure that all presenters have opened their presentation files and share their screen.

● Introduce yourself to the audience and explain the time allocation at the beginning of each session.

● Oral presentations will be allocated 10 minutes and approximately 4 minutes for Q&A.

● Please make sure the presenters adhere to the time limit by utilizing the warning system: "1-minute left" and "Stop now." If there is time left, please initiate a further

discussion with relevant topics in Q&A.

- Express appreciation to the presenters and the audience for their attention and, most importantly, conclude the session.

Conference Program

Day 1

Time Taiwan (UTC+8)	Time Denton, TX (UTC-5)	2020/06/29 (Denton, TX) 2020/06/30 (Taiwan)			
0700~0710	1800~1810	**Opening (20 mins)** **(Room 1)** *Chair: Dr. Yu-Ju Lan*			
0710~0720	1810~1820				
0720~0730	1820~1830	**Break**			
0730~0740	1830~1840	Oral presentation (Room 1) session chair: Dr. Arif Cem Topuz Paper 20 Lo & Lan	Oral presentation (Room 2) session chair: Ms. Caroline Kairu Paper 7 Koole & Lewis	Oral presentation (Room 3) session chairs: Ms. Junhe Yang Paper 6 Jian & Sun	Oral presentation (Room 4) CT session chair: Ms. Shanshan Ma Paper 9 Ndolo
0740~0750	1840~1850	Paper 18 Topuz & Kinshuk	Paper 8 Kairu	Paper 12 Yang	Paper 11 Ma, Spector & Bhagat

0750~0800	1850~1900	Q&A	Q&A	Q&A	Q&A
0800~0810	1900~1910	Break			
0810~0910	1910~2010	Plenary session: (Room 1) The Use of Technologies in Teaching Low-Resourced Languages Dr. Shobhana Chelliah Dr. Marguerite Koole Dr. Kevin Lewis Dr. Regina Kaplan-Rakowski Dr. Xian Zhang *Chair: Dr. Aleshia* Hayes			
0910~0920	2010~2020	Break			
0920-1020	2020~2120	Keynote: Dr. Hiroaki Ogata (Room 1) Combining Formal and Informal Language Learning through Evidence-Based Education *Chair: Dr. Karen Johnson*			
1020~1030	2120~2130	Break			
1030-1040	2130~2140	Workshop: Dr. Hiroaki Ogata (Room 1)		Workshop: Dr. Michael Spector (Room 2)	
1040-1050	2140~2150				
1050~1100	2150~2200				

		Let's Touch a LEAF (Learning Evidence and Analytics Framework)	Defining, Developing and Measuring Critical Thinking
1100~1110	2200~2210		
1110~1120	2210~2220		
1120~1130	2220~2230	*Chair:* *Dr. Regina Kaplan-Rakowski*	*Chair:* *Dr. Michael Spector* *Dr. Kaushal Kumar Bhagat* *Ms. Shanshan Ma*

Day 2

Time Taiwan (UTC+8)	Time Denton, TX (UTC-5)	2020/06/30 (Denton, TX) 2020/07/01 (Taiwan)	
0700~0710	1800~1810	Invited Speaker: Critical Thinking (Room 1)	Workshop: Dr. Xiaofei Lu (Room 2)
0710~0720	1810~1820		
0720~0730	1820~1830	Dr. Miguel Nussbaum Critical Thinking and Creativity at COVID-19	Promoting Academic Genre Competence Using Corpus-Based Genre Analysis Activities
0730~0740	1830~1840		
0740~0750	1840~1850	*Chair: Dr. Michael Spector*	*Chair: Dr. Sadaf Munshi*
0750~0800	1850~1900		
0800~0810	1900~1910	Break	
0810~0910	1910~2010	Keynote: Dr. Xiaofei Lu (Room 1) Telepresence-Place-Based Foreign Language Learning: Affordances, Design Principles, and Future Directions *Chair: Dr. Sadaf Munshi*	
0910~0920	2010~2020	Break	
0920-1020	2020~2120	Keynote: Prof. Lin Lin (Critical thinking) (Room 1) Critical Thinking, Technologies, and Future Workforce	

		Chair: Dr. Michael Spector			
1020~1030	2120~2130	**Break**			
1030-1040	2130~2140	Oral presentation (Room 1): CT session chair: Ms. Brittany Lankford Paper 15 Smith	Oral presentation (Room 2) session chair: Ms. Hsuan Li Paper 23 Chang & Wei	Oral presentation (Room 3) session chair: Ms. Geneva Tesh Paper 25 Khan, Benjamin & Mavers	Oral presentation (Room 4) session chair: Dr. Yi-Ju Wu Paper 30 Hsu, Lan & Tseng
1040-1050	2140~2150	Paper 19 Goodman	Paper 27 Chen, Tu, Yang, Fang & Chang	Paper 31 McKiddy	Paper 4 Lin, Liu, Chen & Jong
1050~1100	2150~2200	Paper 26 Wang	Paper 24 Li, Yang & Shiota	Paper 34 Tesh & Larson	Paper 22 Wu, Lan, Huang, Lin & Tsai
1100~1110	2200~2210	Paper 32 Lankford	Q&A	Q&A	Q&A
1110~1120	2210~2220	Q&A	Q&A	Q&A	Q&A
1120~1130	2220~2230	Q&A			

Day 3

Time Taiwan (UTC+8)	Time Denton, TX (UTC-5)	2020/07/01 (Denton, TX) 2020/07/02 (Taiwan)	
0700~0710	1800~1810	**Invited Speaker: Critical Thinking (Room 1)** **Dr. Paul Barach** **Critical factors essential for understanding and enhancing the learning capabilities of organizations** *Chair: Dr. Michael Spector*	**Workshop: Dr. Dorothy M. Chun (Room 2)** **Workshop on Journal Article Writing and Publishing** *Chair: Dr. Miao-Fen Tseng*
0710~0720	1810~1820		
0720~0730	1820~1830		
0730~0740	1830~1840		
0740~0750	1840~1850		
0750~0800	1850~1900		
0800~0810	1900~1910	Break	
0810~0910	1910~2010	**Keynote: Dr. Dorothy M. Chun (Room 1)** **Telecollaboration for Transforming Language Learners into Global Citizens** *Chair: Dr. Shobhana Chelliah*	
0910~0920	2010~2020	Break	
0920-1020	2020~2120	**Plenary session: Ms. Andrea S. Y. Yang (Edu. Div. TECO in Houston) (Room 1)** **Taiwan's Chinese Language Education**	

		Chair: Dr. Tai-Yi Huang			
1020~1030	2120~2130	**Break**			
1030-1040	2130~2140	Oral presentation (Room 1) session chair: Ms. Lauren Belaid Paper 28 Belaid	Oral presentation (Room 2) session chair: Dr. Yun Wen Paper 1 Lin, Weng & Trang	Oral presentation (Room 3) session chair: Dr. Siao-Cing Guo Paper 10 Lee	Oral presentation (Room 4) session chair: Mr. Yen-Ting, R. Lin Paper 21 Lin & Tsai
1040-1050	2140~2150	Paper 29 Li & Yang	Paper 3 Wen & Lau	Paper 13 Guo & Lan	Paper 16 Wang, Liu & Lo
1050~1100	2150~2200	Q&A	Q&A	Q&A	Q&A
1100~1110	2200~2210	**Break**			
1110~1120	2210~2220	**Closing** **(Room 1)** *Chair: Dr. Yu-Ju Lan*			
1120~1130	2220~2230				

Keynote Speakers (Alphabetical order by last name)

Prof. Dorothy M. Chun

University of California, Santa Barbara

Telecollaboration for Transforming Language Learners into Global Citizens

As the field of SLA, including TELL, underwent a "social turn" at the beginning of the 21st century (Block, 2003) and subsequently an "intercultural turn" a decade later (Thorne, 2010), I've participated in 8 telecollaboration projects which reflect this trajectory. The first few online intercultural exchanges, beginning in 2003, had the primary goal of increasing both linguistic and intercultural competence through social interaction between classes in California and Germany. In comparison, the most recent telecollaborations have focused more on developing global citizens who think interculturally and critically. In this talk I will trace the evolution of how my own projects and goals have changed, with a detailed discussion of the latest project, a three-way telecollaboration between universities in Germany, Poland, and the U.S. Using the Community of Inquiry model, I will present data on how students in this exchange exhibited varying degrees of cognitive presence and social presence in the different online tasks they engaged in and how the affordances of certain technologies allowed for a greater or lesser amount of critical thinking as global citizens.

Biography:

Dorothy M. Chun is a Professor in the Department of Education. She received her Ph.D. from UC Berkeley in historical Germanic linguistics but transitioned to the fields of second language acquisition and applied linguistics shortly thereafter. Her passion has been researching and exploring how second languages are learned and how technology can be leveraged to enhance the learning of language and culture. Her research areas include: L2 phonology and intonation, L2 reading and vocabulary acquisition, computer-assisted language learning (CALL) and telecollaboration for intercultural learning. She has conducted studies on cognitive process in learning with multimedia and has authored courseware for language and culture acquisition. Her recent research investigates how computer applications can help speakers of non-tonal languages learn tonal languages by visualizing the pitch curves they produce and comparing them with the pitch curves of native speakers. Other research projects involve using online communication tools to help second language learners interact with native speakers of the L2, thereby being exposed to authentic language use and having the opportunity to co-construct knowledge with their peers about another culture. Since 2000, she has been the Editor in Chief of the online journal Language Learning and Technology and in 2004 became the founding director of the Ph.D. Emphasis in Applied Linguistics at UCSB.

https://education.ucsb.edu/research-faculty/bio?first=Dorothy&last=Chun

Prof. Lin Lin

Learning technologies at the College of
Information, University of North Texas (UNT)

Critical Thinking, Technologies, and Future Workforce

Critical thinking skills are more important than ever, now that we have easy access to exponentially growing amount of information. Educational pedagogies and technologies can help younger generations to develop critical thinking skills and growth mindset in order to better contribute to the workforce and society. In this session, we will discuss current issues connecting critical thinking, new technologies, and future workforce.

Biography:

Dr. Lin Lin is a professor of learning technologies at the College of Information, University of North Texas (UNT). She received her doctoral degree in instructional technology and media at Teachers College, Columbia University in New York. Lin's research looks into intersections of mind, brain, technology and learning. Specifically, she has published in areas including creativity, virtual reality, media multitasking, multimedia design, CSCL, critical thinking, computational thinking, and learning in virtual spaces. Lin currently serves as the Director for the Texas Center for Educational Technology (TCET), and as the Development Editor-in-Chief of the journal *Educational Technology Research and Development* (ETR&D). She also plays several other leadership roles in affiliated professional associations. Lin is passionate about helping people develop and maintain curious minds and life-long learning with cognitive exercises and new technologies.

Prof. Xiaofei Lu

Pennsylvania State University

Telepresence-placed-based Foreign Language Learning: Affordances, Design Principles, and Future Directions

Real world places provide rich and authentic language and cultural contexts for foreign language learners. However, most foreign language learners are unable to travel to target-language environments for language learning purposes. In this talk, I develop the concept of telepresence-place-based foreign language learning (TPBFLL) and discuss its affordances and design principles based on findings from two case studies. In the first, exploratory study, three adult English as a foreign language (EFL) learners in China and a native-speaker of American English participated in a campus tour activity on the campus of a university in the US using a small telepresence robot. In the second study, eleven adult EFL learners in China and four native-speaking English instructors participated in a series of learning activities at an arboretum on the campus of the same university using a larger telepresence robot. Analysis of a series of surveys, interviews, field notes, and learning activity videos revealed a number of unique learning affordances of TPBFLL and informed the development of a coherent set of principles that can be used to guide TPBFLL activity design. I conclude with a discussion of possible avenues for future research into TPBFLL.

Biography:

Xiaofei Lu is Professor of Applied Linguistics and Asian Studies at The Pennsylvania State University, where he directs the graduate programs in the Department of Applied Linguistics. His research interests include corpus linguistics, technology-mediated language learning, English for Academic Purposes, second language writing, and second language acquisition. He is the author of Computational Methods for Corpus Annotation and Analysis (Springer, 2014) and co-editor of Computational and Corpus Approaches to Chinese Language Learning (Springer, 2019). His work appears in American Educational Research Journal, Applied Linguistics, Computer Assisted Language Learning, Educational Researcher, English for Specific Purposes, International Journal of Corpus Linguistics, Journal of English for Academic Purposes, Journal of Pragmatics, Journal of Second Language Writing, Language Learning & Technology, Language Resources and Evaluation, Language Teaching Research, Language Testing, ReCALL, System, TESOL Quarterly, and The Modern Language Journal.

http://personal.psu.edu/xxl13/

Prof. Hiroaki Ogata

Professor, Academic Center for Computing and
Media Studies (ACCMS), Kyoto University

Combining Formal and Informal Language Learning through Evidence-based Education

The multi-disciplinary research approach of Learning Analytics (LA) has
provided methods to understand learning and teaching process by analyzing
logs collected during diverse teaching-learning activities and potentially enrich
such experiences. This talk will propose the Learning Evidence Analytics
Framework (LEAF) and draw a research road-map of an educational big data-
informed evidence-based education system. It also focuses on the approach of
combining formal and informal language learning.

Biography:

Hiroaki Ogata is a Professor at the Academic Center for Computing and Media
Studies, and the Graduate School of Informatics, Kyoto University, and an
associate member of Science Council of Japan. His research includes Computer
Supported Ubiquitous and Mobile Learning, CSCL, CALL, and Learning Analytics.
He has published more than 300 peer-reviewed papers including SSCI Journals
and international conferences. He has received several Best Paper Awards, and
gave keynote lectures in several countries. He is an associate editor of IEEE
Transactions on Learning Technologies. RPTEL and IJMLO, and also an editorial
board member of IJCSCL, IJAIED and JLA.

http://www.let.media.kyoto-u.ac.jp/en/member/hiroaki-ogata/

Invited Speakers (Alphabetical order by last name)

Prof. Paul Barach

BSc, MD, MPH, Maj (ret.)

Critical factors essential for understanding and enhancing the learning capabilities of organizations

Individual and organization learning in health and wellness represents a paradigm shift in how care is delivered and how changes in practice can be disseminated and implemented. These results rely on a new approach to meaningful teamwork, continuous audit, and support of data-driven change and improvement. The real challenge remains how to translate these findings into new settings. Introducing and implementing new practices is a complex challenge requiring what Deming calls the "profound knowledge" of improvement. This involves four key components: (1) a deep knowledge of the system through which care is delivered; (2) understanding system variation and the aspects of variation that can be tolerated or even required (as in adaptations) and those that need to be eliminated; (3) willingness to experiment to continually improve and be bold in advancing testable theories of improvement; and (4) engaging front line staff in the improvement process with transparency, truth telling, and trust building.

The nature of introducing complex systems is that small changes to inputs may produce large changes in results across the system. Therefore thoughtful implementation with an eye on key system leverage points reinforced by engaged learning communities may result in rapid acceleration once a "tipping point" is reached. By the same token, negative feedback loops may result in rapid deterioration of uptake from which systems may find it difficult to recover. The implementation

tools require thoughtful application: They are not a hammer that can be universally employed in all circumstances. They are not an end in themselves. Instead they provide a starting place for systematic reflection, staff engagement, deepening trust and staff support, and enabling a deep and meaningful culture of continuous improvement.

The process of implementing new knowledge is iterative and cyclical. It should promote engagement among clinicians, staff, administration, and patients. It is systematic and based upon measurement and consultation with all stakeholders involved in the process. Even if initial outcomes are achieved, the practice could determine how to produce an even better outcome or achieve it more efficiently and with less cost. Continuous quality improvement (CQI) is necessary and requires significant change in how surgical care is delivered. It explicitly seeks to be not only better but the best that a team can deliver under these circumstances. The process of learning is iterative and typically incremental, constantly being infused by every day work experience and hard-earned lessons by clinicians providing clinical care. The staff ownership for the improvement process and adaptability of the intervention to address future quality outcomes are considered essential and key strengths for sustainable gains.

Biography:

Paul Barach, MD, MPH, has been a leader of Anesthesia patient safety, quality management and performance improvement, medical education, and systems change with over 15 years of clinical and administrative experience in academic medical centers and integrated delivery systems. Paul is a double boarded anesthesiologist and critical care physician-scientist, Clinical Professor at Wayne State University School of Medicine, and Children's Hospital of Michigan. He is Lecturer and senior advisor to Dean, Jefferson College of Population Health. He trained at the Massachusetts General Hospital affiliated with Harvard Medical School. Paul is an elected member of the lead honorary society the Association of University Anesthesiologists. He leads the Patient Safety Commission for the World Society of Intravenous Anesthesia and is a member of the World Societies of Anesthesia Patient Safety subcommittee working group. He holds adjunct academic appointments and teaches in Universities in Europe, and Australia.

Professor Barach was Chief Quality Officer for the University of Miami and Jackson Memorial Healthcare System, Associate Dean for Patient Safety, and Founder and Director of the Miami Center for Patient Safety and Simulation. Paul's areas of experience include clinical strategy, clinical model development & redesign, physician leadership & engagement, performance & quality improvement, perioperative care, and anesthesiology. He led the Florida Patient Safety Agency creation and wrote the blueprint for the Betsy Lehman Patient Safety Massachusetts Center. Dr. Barach is deeply committed to translating research into public health strategies for ensuring safe patient care, systems strengthening, health protection and population health. Paul has more than 25 years of experience as a practicing public health physician and physician executive in the military and in academic medical centers and integrated delivery systems. He is a formally trained health services researcher, with advanced post graduate training in advanced medical education and assessment methods from the Harvard Medical School Josiah Macy Program medical education, lean six sigma, quality improvement and lean techniques at Intermountain Healthcare. He has had additional training in epidemiology and statistics including both methodological as well as applied HTA research. Prior to that he spent 5 years in the military in disasters preparedness work and was involved in leadership, team training, leadership and simulation training for disasters.

Paul has an extensive track record of improving interprofessional surgical training, health service and medical education delivery in US, Australia. GCC and Europe. He leads the Patient Safety Commission for the World Society of Intravenous Anesthesia. He is a board member of the International Academy for Design and Health focusing on innovation and facility design including for disasters. He has been a member of numerous ASA committees including holding leadership roles.

Theories and ideas he has helped shape and provided research findings for, are now in common use as a result of his work: TeamSTEPPS team training, early disclosure after patient harm, robust incident reporting, human factors tools, multi-method, triangulated approaches to research, governance of health systems, and interprofessional learning and culture change to achieve safe and reliable outcomes. His work has led to over $14,000,000 in federal competitive grant funding including as Principal investigator from the US NIH/AHRQ, EC FP-7, Australian NHMRC and Norwegian Federal Agencies.

He served as Editor of the *British Medical Journal Safety and Quality*, has published more than 300 scientific papers and 5 books including *Surgical Patient Care: Improving Safety, Quality and Value: Theory and Practice.* His work has been cited over 10,000 time, H=50. He has presented at or chaired international and national conferences, workshops, symposia and meetings on more than 500 occasions, including over 60 keynote addresses.

Further details at: www.linkedin.com/in/paulbarach and Academia profile

Prof. Miguel Nussbaum

School of Engineering, Universidad Católica de Chile

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Critical Thinking and Creativity at COVID-19

XXIst century abilities are even more relevant now than decades ago when these were conceived. COVID-19 suddenly brought online learning as the center of our attention. In this talk, we analyze the need for Critical Thinking and Creativity, two key elements of these skills, and how these can be taught online. We finish showing that one more element has to be present to achieve an adequate appropriation of skills, the learner's attitude.

Biography:

Miguel Nussbaum is full professor for Computer Science at the School of Engineering of the Universidad Católica de Chile. In 2004 won the innovation in education prize of the Organization of American States (INELAM), in 2011 won the Innovation in Education Prize of Chile for his work in education, and in 2018 the Universidad Andres Bello (Chile) award in education. He was member of the board of the Chilean Agency for the Quality of Education and is Co-editor of *Computers & Education*. He has a MOOC in Coursera on The Constructivist Classroom, in Spanish, with more than 50.000 learners, and has graduated 33 Ph.Ds.

Workshop

Day 1

Prof. Hiroaki Ogata (Room 1)

Let's Touch a LEAF (Learning Evidence and Analytics Framework)

Chair:

Dr. Regina Kaplan-Rakowski

This workshop will demonstrate our system LEAF (Learning Evidence and Analytics Framework) which consists of Moodle as a LMS, BookRoll as an e-book reader and a Learning Analytics dashboard tool.

The system allows students and teachers to analyze the learning log data by using the above tools and also to store and search evidence. During the workshop, the participants can create your own account in LEAF and try it

Prof. Michael Spector (Room 2)

Defining, Developing and Measuring Critical Thinking

Chair:

Dr. Michael Spector,

Dr. Kaushal Kumar Bhagat,

Ms. Shanshan Ma

In this workshop, our research team (Spector, Lin, Bhagat, Gu, Ma, and Kucher) will present how critical thinking has been defined and measured based on multiple research reviews conducted in the last two years. We will also present a review of instruments widely used to measure critical thinking in adults and children. Our research team is primarily interested in critical thinking efforts for children so we will review a few such efforts and show some of our own work. If time allows, we will ask participants to respond to a research questionnaire being used to gather insights from K-12 teachers and to provide an example of their own using an authoring template now being used to gather additional application examples.

Day 2

Prof. Xiaofei Lu (Room 2)

Promoting Academic Genre Competence using Corpus-based Genre Analysis Activities

Chair:

Dr. Sadaf Munshi

Xiaofei Lu, Pennsylvania State University

This workshop will introduce participants to the use of corpus-based genre analysis activities for promoting learners' academic genre competence. Different from activities that focus on either identifying key linguistic features or analyzing the rhetorical structures of different genres of academic writing in isolation, the corpus-based genre analysis activities advocated here highlight the connections between key linguistic features characterizing different genres of academic writing and the rhetorical or communicative functions they are used to realize. The workshop will start with an overview of the basics of rhetorical move-step analysis, the use of automated tools to extract linguistic features from written corpora, and emerging research on the pedagogical implementation and effectiveness of corpus-based genre analysis activities that integrate linguistic and rhetorical analyses of academic texts. This will be followed by a hands-on session in which participants will use AntGram to extract two types of formulaic sequences, i.e., lexical bundles and phrase-frames, from a corpus of written texts, and subsequently use AntConc to explore the connections between the formulaic sequences identified to the rhetorical or communicative functions they are used to realize in the corpus. The workshop will conclude with an interactive discussion of the practical design and implementation considerations of such corpus-based genre analysis activities in the participants' specific pedagogical contexts as well as the associated opportunities for research.

Technical requirements for the workshop

All participants will need to bring their own laptops with the following two tools installed prior to the workshop. For each tool, the most recent version for the appropriate operating system should be installed.

1. AntGram (https://www.laurenceanthony.net/software/antgram/)
2. AntConc (https://www.laurenceanthony.net/software/antconc/)

Data requirements for the workshop

The workshop organizer will provide participants with access to a small collection of written texts that can be used for demonstration and practice purposes in the hands-on session. Participants are strongly recommended to bring their own corpus of expert academic writing (e.g., a set of published research articles) or learner writing (e.g., a set of student essays). Participants who bring their own corpus should ensure that:

1. The corpus is separated into individual files, with each file representing a single text (e.g., a research article, a section of a research article, or a student essay).

2. Each file is saved as a simple plain text file (.txt) with UTF-8 encoding, with no white space or non-alphanumeric characters in the filename.

3. Each file contains at least 100 words (the longer the better). For the purposes of this workshop, non-textual material (e.g., tables, figures, references, footnotes, formulas, etc.) should be removed, and spelling mistakes should be corrected if possible.

4. The corpus is large enough for at least some interesting formulaic sequences to emerge (20 files required; 100 files recommended).

Biography:

Xiaofei Lu is Professor of Applied Linguistics and Asian Studies at The Pennsylvania State University, where he directs the graduate programs in the Department of Applied Linguistics. His research interests include corpus linguistics, technology-mediated language learning, English for Academic Purposes, second language writing, and second language acquisition. He is the author of *Computational Methods for Corpus Annotation and Analysis* (Springer, 2014) and co-editor of *Computational and Corpus Approaches to Chinese Language Learning* (Springer, 2019). His work appears in *American Educational Research Journal, Applied Linguistics, Computer Assisted Language Learning, Educational Researcher, English for Specific Purposes, International Journal of Corpus Linguistics, Journal of English for Academic Purposes, Journal of Pragmatics, Journal of Second Language Writing, Language Learning & Technology, Language Resources and Evaluation, Language Teaching Research, Language Testing, ReCALL, System, TESOL Quarterly,* and *The Modern Language Journal*.

Day 3

Prof. Dorothy M. Chun (Room 2)

Workshop on Journal Article Writing and Publishing

Chair:

Dr. Miao-Fen Tseng

Dorothy M. Chun

Editor-in-Chief, *Language Learning & Technology*

In this interactive workshop, I will engage participants in a step-by-step process of writing and publishing articles in CALL/TELL journals. After first learning about the many reputable journals in which TELL research can be published, the next step is to select an appropriate journal for your particular study, based on the type of study it is and whether it fits the scope of the journal. Once a journal has been selected (assuming that you will have read a number of recently published articles in that journal), the writing process begins. The workshop will present guidelines and tips for writing each of the sections of the journal article (abstract, literature review, research questions, methodology, results and discussion, conclusion). For each section, participants will be given time to consider a current or future study that they plan to write up and to start making notes about how they could follow the guidelines and tips suggested. Through this process, participants will begin to think through how their article will take shape coherently. The final part of the workshop will address submitting articles and how to undertake revisions when requested by the journal editors.

Panel Session

The Use of Technologies in Teaching Low-Resourced Languages

Chair:

Dr. Aleshia Hayes

Panelists:

Dr. Shobhana Chelliah

Dr. Marguerite Koole

Dr. Kevin Lewis

Dr. Regina Kaplan-Rakowski

Dr. Xian Zhang

Description:

Most strategies for teaching and learning language are based on major world languages. Almost all the aspects relevant to effectively teaching or learning a heritage language for an endangered language requires new ways of engaging with the language materials, teachers, learners, and learning situations. With respect to materials – most language materials are highly specialized and geared to the linguist typologist. For languages such as English and other world languages, the source materials for teaching are available at least five levels. First, there are linguistic grammars with discipline specific terms and organized according to predictive or generative rules. Second are interpretive grammars or compendia that catalog structures present in corpora with use and structure (Quirk et al 2010). Third are functional-grammars where language structure is matched to communicative functions (e.g., Lock 1996). Fourth, are pedagogical grammar materials for teacher training which include contrastive analysis between L1 and target language (e.g., Yule 1998). Finally, there are pedagogical structures where language structures are presented in a graded fashion for beginning, intermediate and advanced learners,

predictable and non-predictable structures, and communicative uses (White Hat 1999). Barely any of this is available for low-resource languages for which, if we are lucky, we have the first level of linguistic description. Other factors are also different, e.g., the teachers themselves may be learners or semi speakers, the students may be adults who have undergone extreme trauma in being forcibly required to give up their languages at a young age, or the exposure to the language may be limited to the classroom or interactions with elders (Hinton 2011). Many times youngsters may see little value in learning the language. We seek to highlight how technological interventions can greatly help in these situations.

The panel will feature keynote speakers Marguerite Koole and Kevin Lewis. The keynote presentation will be followed by discussion from three UNT.

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Yule, George. 1998. A guide to explaining English Grammar. Cambridge

Panel Abstract:

Challenges and new frontiers of teaching low-resourced languages with technology: Cree realities and perspectives

Marguerite Koole (1st author) and Kevin Lewis

Canada has seen a serious decline in speakers of Indigenous languages. "It is estimated that at the time of contact there were an estimated 450 Aboriginal languages and dialects in Canada" (McIvor, 2009, p. 1). Today, of the ten distinct Indigenous language families, approximately sixty languages are still spoken (McIvor, 2009). In terms of population across Canada, there are now 260,550 speakers of these languages (Statistics-Canada, 2017)—less than one per cent of the total Canadian population. In the Saskatchewan context, there is additional urgency due to the coming shift in demographics. The Government of Saskatchewan reports that there are 19,020 people who speak Cree and 7,855 who speak Dene as a mother tongue. These two languages are also listed in the top five fastest declining mother tongues in the province with Cree declining by 5645 speakers and Dene declining by 520 speakers since 2011 (Saskatchewan language: 2016 Census of Canada, 2016). At the same time, it is projected that by 2026, 36% of the Saskatchewan population aged 15 to 29 will be of Indigenous ancestry (Townsend & Wernick, 2008). Unfortunately, there is a dearth of digital tools for language revitalization. The Digital Tools for Language Revitalization in Canada (DTLRCL https://www.wicehtowin.ca/) database contains information and links to websites, video/audio repositories, and applications ("apps") useful for Indigenous language revitalization in Canada (Koole, Felber, MacKay, & Lewis, 2018; Koole & Lewis, 2018). Initially, 156 online resources were found of which 83 were dictionaries and 73 were audiolingual tools. The researchers were unable to locate interactive apps for learning and practicing syntax in any Indigenous-Canadian language. To address the lack of resources, our team has received funding ($100K from the Canadian Internet Registry Association (CIRA)) to develop the 'nisotak' mobile app which will provide language instruction and exercises for learning Cree syntax (word and sentence formation). The project will involve the development of a database of morphemes and syntax rules, a back-end interface for updating the database, and a front-end interface for learning and practicing Cree syntax through engaging and culturally relevant activities. We will discuss the approaches and challenges that we

have encountered during development:

1) How can we design an app that appeals to youth living in both traditional and non-traditional environments?

2) How can we design an app that addresses local dialectical differences?

3) How will we evaluate its effectiveness?

Keywords: Cree, language revitalization, Indigenous languages, technology enhanced learning

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Biography:

Kevin Lewis

Assistant Professor, Curriculum Studies, College of Education, University of Saskatchewan. Dr. Kevin wâsakâyâsiw Lewis is a nêhiyaw (Plains Cree) instructor, researcher and writer. Dr. Lewis has worked with higher learning institutions within the Prairie Provinces of Manitoba, Saskatchewan and Alberta in the areas of Cree language development and instructional methodologies. His research interests include language and policy development, second language teaching methodologies, teacher education programming, and environmental education. For the past 15 years, Dr. Lewis has been working with community schools in promoting land and language-based education and is founder of kâniyâsihk Culture Camps (www.kaniyasihkculturecamps.com/), a non-profit organization focused on holistic community well-being and co-developer of Land-Based Cree Immersion School kâ-nêyâsihkmîkiwâhpa. Dr. Lewis is from Ministikwan Lake Cree Nation in Treaty 6 Territory.

Marguerite Koole, PhD

Assistant Professor, Educational Technology & Design, College of Education, University of Saskatchewan. In 2013, Dr. Koole completed her PhD in E-Research and Technology-Enhanced Learning at Lancaster University UK. Her thesis is entitled "Identity Positioning of Doctoral Students in Networked Learning Environments". She also holds a Masters of Education in Distance Education (MEd) through the Centre for Distance Education at Athabasca University. Her focus was on mobile learning.

Dr. Koole has a BA in Modern Languages and has studied French, Spanish, German, Blackfoot, Cree, Latin, Mandarin, ancient Mayan hieroglyphics, and linguistics. Her interests in languages led her to teaching. She has taught English as a Second Language (ESL), English for Academic Purposes (EAP) and university-level writing at the University of Lethbridge, Athabasca University, private schools in Canada, and a private school in Spain.

While teaching at the University of Lethbridge, Dr. Koole became interested in designing online educational resources. She completed a college diploma in Multimedia Production with training in web development, audio, video, animation, 3D animation, marketing, and business.

Dr. Koole has worked in online and distance education for over 15 years. Through the years, she has been involved in teaching, instructional design, multimedia programming, content management, e-portfolios, and social software. She has designed interactive, online learning activities for various learning purposes and platforms—including print, web, and mobile devices.

Google Scholar:

https://scholar.google.com/citations?user=gj275K8AAAAJ&hl=en

ORCID D iconhttps://orcid.org/0000-0002-0041-5615

Panel Discussants:

Regina Kaplan-Rakowski, Ph.D. (Southern Illinois University)

Dr. Regina Kaplan-Rakowski holds an appointment at the Department of Learning Technologies at University of North Texas. She conducts research on computer-assisted language learning and her primary research emphasis is on learning in immersive settings, such as virtual reality or virtual worlds. She also investigates the impact of visual and audial modalities on learning, especially focusing on the effect of stereoscopic three-dimensional visualizations.

Xian Zhang, Ph.D. (University of Pennsylvania)

Dr. Xian Zhang is an assistant professor in Applied Linguistics at the Department of Linguistics, University of North Texas. His research interests include second language acquisition, sociocultural theory, cognition, corpus linguistics, and language assessment.

Shobhana Chelliah, Ph.D.

Dr. Shobhana Chelliah is Professor of Linguistics and Associate Dean of Research and Advancement at the College of Information, University of North Texas. Her research focuses on the documentation of the low resourced languages of TransHimalayan (formerly known as Tibeto-Burman) languages of Northeast India. She is interested in digital language archive organization that leads to better access for language information for language science and language pedagogy.

Taiwan's Chinese Language Education

Chair:

Dr. Tai-Yi Huang

Ms. Andrea S. Y. Yang
Education Division of the Taipei Economic and Cultural Office (TECO) in Houston

I.   Study Chinese in Taiwan

In 2018, 28,399 foreign students were learning Chinese in Taiwan, mostly from Japan, Vietnam, and Indonesia. They chose Taiwan because it's a free, democratic, and safe society, and has a comfortable and convenient living environment. Taiwan uses traditional Chinese characters which reflect traditional Chinese culture.

The government of Taiwan offers Huayu Enrichment Scholarships available for Summer (2 months), 3 months, 6 months, 9 months, or 1 year for those who wish to apply. The Ministry of Education (MOE) welcomes short-term Chinese study groups worldwide to study in Taiwan and subsidizes the course fees. The Mandarin-on-the-go in Taiwan program, created by universities in Taiwan, offers half-day, one-day, and longer Chinese courses combining Chinese lessons & cultural experiences.

II. Mandarin Teaching in the World

In cooperation with educational institutions around the world, the MOE sponsors the "Taiwan Visiting Chinese Lecturers and Teaching Assistants Program", which encourages the professional Chinese language lecturers from Taiwan to teach at schools overseas. These lecturers are highly qualified, having attained undergraduate or postgraduate degrees, as well as certificates for teaching Chinese as a foreign language, issued by the MOE in Taiwan. Mandarin teaching assistants are registered graduate/university students in a Mandarin teaching related major at a Taiwan university and/or holder of a certificate verifying 90 or more hours of training in a Teaching Mandarin as a Foreign Language program offered by a Taiwan university.

In addition, online Chinese learning courses are available free of charge on Coursera, the world's largest open online learning platform. In 2018, a total of 324 tests of

Chinese as a Foreign Language - TOCFL were run in 33 countries for 59,776 test-takers.

About TECO:

The Education Division of Taipei Economic and Cultural Office in Houston, representing Taiwan's Ministry of Education, aims to promote educational relationships between Taiwan and eight southern states in the US: Arkansas, Colorado, Kansas, Louisiana, Mississippi, Missouri, Oklahoma and Texas. The Education Division is committed to providing the best possible assistance for scholars, students, educators, and government officials in the region.

Mission:

- To enhance the education cooperation between Taiwan and the U.S.A.

- To encourage foreign students to study in Taiwan.

- To promote teaching and learning Chinese as a foreign language.

- To build connections between Taiwan and overseas Taiwanese students and scholars.

Biography:

Andrea S. Y. Yang

Andrea Yang, Director of Education Division of the Taipei Economic and Cultural Office in Houston, has dedicated herself to international educational relations and exchanges for more than two decades. She majored in Spanish Literature and received an M.A. in European Studies. Her previous post before Houston was in Paraguay, South America where she helped more than 200 Paraguayan students pursue higher education in Taiwan and assisted in equipping local educational institutions with IC infrastructure. In the headquarters of the Ministry of Education, she was in charge of studying abroad programs, overseas Chinese students and international students service affairs.

Abstracts

Day 1

An Investigation into Virtual Immersion Mandarin Chinese Writing Instruction with Student with Autism

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Research findings show that using virtual world environments, such as Second Life (SL), for language learning can create a more comfortable yet authentic learning environment for language learners. This research focused on the influence of virtual immersion Mandarin Chinese writing instruction with a participant with autism by conducting an action research to seek possible solutions for teaching and learning needs. In this research, there were 2 cycles: traditional writing instruction (TWI) and virtual immersion writing instruction (VIWI). Three writing topics were presented to the participant. The topics were as follows: describing the kitchen, going to the convenience store, and comparing between different transportations. Each topic was presented to the participant during two, 50 minutes class sessions. The first session was for prewriting planning activities by using mind maps. The second session was for reviewing the pre-writing materials and then moving on to the writing activity. To obtain results, summarization and comparison of the mind maps and essays from the participant were performed. The essays were graded, and then, the scores were compared. Oral interviews regarding attitudes towards Mandarin Chinese learning, Mandarin Chinese writing learning, and 3D virtual reality learning were conducted to further understand the participant 's regarding these areas. The results show that the incorporation of VIWI not only changed the participant's attitude towards Mandarin Chinese learning and Mandarin Chinese writing learning but also enhanced the participant's prewriting planning skills and Mandarin Chinese essay writing skills.

Keywords: 3D virtual reality, Second Life, Autism, Mandarin Chinese writing

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A Review of Literature to Understand Students'
Perceptions Regarding Online Assessments

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Online assessments have been widely used in many disciplines (such as language learning, mathematic, and medical) as a kind of learning technology. Since students are users of online assessments, it is important to consider the perceptions of these assessees. Therefore, this study focused on understanding students' perceptions of online assessments via reviewing the existing literature. This research includes a total of 61 studies and the common point of these studies is the inclusion of students' views on online assessments.

Students' perceptions of online assessments were categorized in terms of (1) positive attitudes, (2) negative attitudes, (3) perceptions of cheating and plagiarism, and (4) perceptions of effect on learning. The expressions that stood out in category of positive attitude towards online assessments were as follows: they wanted to use it in the future; and, online assessments did not increase anxiety. Besides, the most stressed negative attitude was about technical issues in online assessments. Thirdly, there were disagreements among students' perceptions about cheating and plagiarism. For instance, some of the students stated that cheating was easy and higher in online exams, but others stressed the opposite. Finally, students' statements showed that online assessments helped to learn class better.

The findings of this study can help researchers in finding out which topics they could focus on in future research. For example, the reason for various disagreements in students' perceptions warrants further investigation. Some of the areas of students' disagreements were; fairness of online exams, students' effort to study, and students' level of comfort.

Keywords: online assessment, e-assessment, students' perception, online exam

Challenges and New Frontiers of Teaching Low-Resourced Languages with Technology: Cree Realities and Perspectives

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Kevin W. Lewis
University of Saskatchewan

Canada has seen a serious decline in speakers of Indigenous languages. "It is estimated that at the time of contact there were an estimated 450 Aboriginal languages and dialects in Canada" (McIvor, 2009, p. 1). Today, of the ten distinct Indigenous language families, approximately sixty languages are still spoken (McIvor, 2009). In terms of population across Canada, there are now 260,550 speakers of these languages (Statistics-Canada, 2017)—less than one per cent of the total Canadian population. In the Saskatchewan context, there is additional urgency due to the coming shift in demographics. The Government of Saskatchewan reports that there are 19,020 people who speak Cree and 7,855 who speak Dene as a mother tongue. These two languages are also listed in the top five fastest declining mother tongues in the province with Cree declining by 5645 speakers and Dene declining by 520 speakers since 2011 (Saskatchewan language: 2016 Census of Canada, 2016). At the same time, it is projected that by 2026, 36% of the Saskatchewan population aged 15 to 29 will be of Indigenous ancestry (Townsend & Wernick, 2008).

Unfortunately, there is a dearth of digital tools for language revitalization. The Digital Tools for Language Revitalization in Canada (DTLRCL https://www.wicehtowin.ca/) database contains information and links to websites, video/audio repositories, and applications ("apps") useful for Indigenous language revitalization in Canada (Koole, Felber, MacKay, & Lewis, 2018; Koole & Lewis, 2018). Initially, 156 online resources were found of which 83 were dictionaries and 73 were audiolingual tools. The researchers were unable to locate interactive apps for learning and practicing syntax in any Indigenous-Canadian language.

To address the lack of resources, our team has received funding ($100K from the Canadian Internet Registry Association (CIRA)) to develop the 'nisotak' mobile app which will provide language instruction and exercises for learning Cree syntax (word and sentence formation). The project will involve the development of a database of morphemes and syntax rules, a back-end interface for updating the database, and a front-end interface for learning and practicing Cree syntax through engaging and culturally

relevant activities. We will discuss the approaches and challenges that we have encountered during development: 1) How can we design an app that appeals to youth living in both traditional and non-traditional environments? 2) How can we design an app that addresses local dialectical differences? 3) How will we evaluate its effectiveness?

Keywords: Cree, language revitalization, Indigenous languages, technology-enhanced learning

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The Role of Language in Technology-Based Learning Environments: Application of Multiple Intelligences Theory

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This is a research study on the role of language in e-learning and teaching with the application of Multiple Intelligences (MI) theory. The study investigates the definition of language and the role of language in education. According to the Merriam-Webster's Collegiate Dictionary (2009), language are systems of conventional spoken or written symbols used by people in a shared culture to communicate to each other. It is the words, their pronunciation, and the methods of combining them used and understood by a target learning audience.

MI Theory, a theory suggested by Howard Gardner in 1983, states that most people have more than one area of intelligence (Adcock, 2014). The eight multiple intelligences are linguistic, mathematical, naturalistic, spatial, kinesthetic, interpersonal and intrapersonal. The theory states that each person may have high intelligence in one or two of the intelligences. When an instructor understands the theory, they can be able to design e-learning content to meet each learners' needs, thereby making learning a positive experience. Using the MI theory aid instructors in designing learning activities that help learners to learn in ways they learn best (Adcock, 2014). In a survey taken by graduate participants at the University of Nebraska at Omaha, who were enrolled in teaching using MI, seventy five percent stated that MI theory helped them meet the diverse student learning needs, increase student motivation and interest in learning and also gave them variety of instructional methods to use (Adcock, 2014).

Academic language, a notion developed through research (Schleppegrell, 2012), could interfere with how language is viewed by the learner and the instructor in e-learning. This could be due to the focus on ideas being presented and minimal emphasis on use of language to convey the ideas (Coffin & Donohue, 2014). The teachers' attitude towards language use may result in miscommunication, student demotivation and lack of safe learning environments. Instructors should focus on use of language in technology-based environments to enhance understanding of knowledge in the target course content and "ways of knowing, doing, believing, and communicating" (Skinnari & Nikula, 2017: 228).

The study will also investigate the use of technical and non-technical language in e-learning and teaching and the importance of the instructor or teacher's understanding

where it is applicable in learning content and learning activities in e-learning and teaching. An online survey will be used to collect data on how higher education students are affected by the language used for instruction in online learning and how it influences their performance and learning process. Technical language is sometimes used by the instructor or teacher with the notion that the learner understands meanings of the terms and concepts in a discipline, which may be unfamiliar to the learner. However, this may reduce the understanding of information (Joiner, Leveson & Langfield-Smith, 2002). Misinterpretation of the information may also influence the learner's preoccupation with the intentions and motivation of the instructor (Joiner, Leveson & Langfield-Smith, 2002). Studies show that the teacher's ability to draw on learners' linguistic resource, one of which is structuring questions to allow learners to sufficiently express their thinking, is therefore important in creating a classroom environment where learners are effectively participating in the creation of and fostering of their own knowledge. The data analysis will help educators understand how language of instruction affects learners and best practices will be highlighted on how to improve language of instruction in e-learning.

Keywords: language, e-learning, teaching, multiple intelligences theory

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Interaction Activities in Inter-School Synchronous Language E-Learning: A Study of Instructional Approaches

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Classrooms located in different places can be connected using videoconferencing systems to promote learner interaction with a variety of resources and with remotely located learners. This paper examines research focused on teaching and learning interaction activities when teachers and assistant teachers teach language lessons in an inter-school synchronous environment. Three high-quality lesson videos in which English is taught as a second language were the focus of this study. We modified the Flanders Interaction Analysis Category (FIAC) and used it to investigate the three lessons, and several programs developed with PHP and Gephi software were used to present the results. Research shows, when preparing for synchronous language teaching, the lecture teachers tend to choose teaching content with some repeatable patterns. Doing so facilitates the participation of students in both local and distance classrooms. There are some fixed interaction activity sequences in language learning based on IWSTL (Inter-school Web-based Synchronous Teaching and Learning), such as the lecture teachers ask questions and let the local students give responses at first, and lecture teachers control the ICTs to instruct and then ask some questions to all students. To improve the learning efficiency and effectiveness of students in distance classrooms, it is recommended that assistant teachers working in distance classrooms or with remotely located students should be more involved in teaching processes with more collaboration with the primary lecturer or teacher. This study involved learning in a video-based setting. The findings of the study may be useful for teachers, assistant teachers, and school administrators involved with synchronous language teaching.

Keywords: Synchronous teaching and learning, Inter-school teaching, Synchronous Language teaching, Fixed activity sequence

Applying a Multimedia WordPress Website for Developing Self-Regulated Learning Language

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Due to the rapid development of educational technologies, multimedia has become standard learning tools for stimulating language learning. WordPress is a kind of powerful open-source software, which people can design their websites, write personal blogs, and create interesting apps. Prior researches have claimed that instructors use multimedia in the class to increase learners' English language learning interests and expand their language learning outcomes (Tsou, Wang, Tzeng, 2006; Gilakjani, 2012; Huang, Liu, 2014). However, little researches show that one type of multimedia as a self-regulated learning tool can assist learners in learning English in their daily life rather than in the class.

In this study, researchers will test a multimedia software, WordPress can assist learners in practicing English by themselves, beyond the educators and classroom. Learners can publish personal learning blogs, record their English pronunciation, and review peer feedback under each published learning content in WordPress website anytime, anywhere. This study plans to apply among international students in Intensive English Language Institute of University to test its effects on learning English. The preliminary result of this study is the advantages of multimedia WordPress website as an aid learning tool to support learners' self-regulated learning English. If WordPress website can be implemented among international students to learning English, the number of English instructors and the cost of multimedia learning tools can be reduced, and self-regulated learning in the web-based environment may succeed in language learning.

Keywords: Self-Regulated Learning, Multimedia, Language Learning

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Effective Feedback Strategies that Promote Critical Thinking Skills in Online Learning Enviroments: An Online Assesment Learning Perspective

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This paper presents a thematic analysis of how higher education instructors can effectively provide feedback in the online learning environment, in such a way that, it promotes critical and creative thinking skills in the students. Feedback has been a great point of interest to many researchers. However, previous research has mainly focused on analyzing student perception towards the feedback they receive in the learning environment but, little focus is being put on how effective feedback should be delivered to the students, in such a way that sparks their thinking to greater heights improving the learning process. This comprehensive review of literature will explore various interactive feedback strategies such as, those recommended by prominent researchers (Narciss, 2008) that instructors can utilize. The paper will provide dominant themes within several research literature on feedback, with an aim of enhancing the quality of feedback in the online learning environment.

Keywords: Feedback, Assessment, Higher Education, Course Signals, Technology, Online Learning.

Virtual Reality for Developing Critical Thinking in K-12 Education

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With the rapid advancement of technology, many emerging technologies have been explored for educational purpose. Currently, Virtual reality (VR) is one of the heated topics discussed among the researchers and educators (Velev & Zlateva, 2017). Established in previous studies, the term VR sometimes refers to the virtual environments (VEs) or the combination of technologies used to create the VEs (Vora et al., 2002). VR technology allows users to interact in real-time and immerse in virtual environments. Comparing with traditional learning environments or methods, VR is believed to bring better engagement (Allcoat & von Mühlenen, 2018) and a sense of presence caused by immersion (Bowman & McMahan, 2007). VR related technologies have been used in various areas or disciplines for professional skills training or treatments such as military (for example, see Bhagat, Liou, & Chang, 2016; Moshell,1993), healthcare (for example, see Smith & Hamilton, 2015; Rizzo et al., 2013), and astronomy (for example, see Mintz, Litvak, & Yair, 2001; Guimaraes & Gnecco, 2009). Positive results were revealed.

Along with the popularity of VR implementation, there are also other emerging technologies such as augmented reality (AR) and simulation employed for other non-traditional education subjects such as the development of critical thinking and some other 21st century skills. For example, Schrier (2006) designed an augmented game called "Reliving the Revolution (RtR) for teaching and motivating 21st century skills. The study results showed a positive effect (In the article, 21st century skills include interpretation, problem-solving, information management, collaboration, flexibility, the acceptance of diverse perspectives, etc.). Lau and Lee (2015) conducted an empirical study using a VR educational product, ActiveWorld©, for exploring the use of simulated immersive virtual environments for creativity education in university. Explorative and fun were found as the essential factors that determined students' positive learning behaviors. Game-like virtual environments were suggested by the authors. Rauen (2001) believed that simulation was a promising method for critical thinking development. Though a review by Adib-Hajbaghery and Sharifi (2017)

revealed that not all simulation cases on critical thinking development were successful.

However, in most of the VR educational practices applying VR in professional skills training or developing 21st century skills, almost all the subjects were adults. Few VR studies were conducted for children's critical thinking development. Which makes us wonder is VR an appropriate technology for developing critical thinking in children? Differing from other VR practices, besides the difference between thinking skills and other operational skills or pure knowledge, in developing children's critical thinking, there is no specific purpose but to cultivate students' corresponding abilities and dispositions of critical thinking, such a development might be across ages, which is to develop domain-general critical thinking in children.

Against the background above, the purpose of this study is to explore to what extent VR is appropriate to the development of critical thinking in children, we examined the potential of VR for developing critical thinking, discussed some concerns about designing and applying VR in Children for critical thinking. This study is to shed a light on the implementation of VR for critical thinking development in children.

Keywords: critical thinking, child development, K-12 education, virtual environment design, virtual reality

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Day 2

Is Computational Thinking Critical Thinking?

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Jeannette Wing popularized the idea of computational thinking, which is the set of approaches typically used in computer science in order to solve a problem. In recent years, nation-wide educational reform efforts have focused on expanding students' exposure to and proficiency in computational thinking. It has even been argued that computational thinking is critical thinking. This paper assesses the relationship between critical thinking and computational thinking by examining different definitions of and frameworks for critical thinking, assessing the various definitions and manifestations of computational thinking, and then analyzing the extent to which computational thinking can be considered critical thinking, concluding by noting important gaps between computational thinking as frequently practiced and critical thinking as ideally constituted. The social implications of the lacunae in computational thinking will be briefly explored.

Keywords: computational thinking, critical thinking, computer science education

Using Holistic Design and Technology to Stimulate Critical Thinking in Mathematical Modeling

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Critical thinking can be defined as reflection, based on deep contentknowledge, which informs the thinker about how best to apply his knowledge in a given situation. With the increasing demand forhigher education to produce graduates that are not only well educated in their field of study but who can also think critically within it, one instructional model that promotes critical thinking is Holistic Design. Holistic Design provides strategies for complex learning by presenting students with authentic, real-world tasks. In my junior-level mathematical modeling course at Baylor University, one such task my students investigate is building a schedule to repay an automobile loan. This project requires that students account for all financial aspects of the car buying process. In order to accomplish this, they must engage inductive and deductive reasoning skills while leveraging their knowledge of exponential growth and recursive relationships to construct a mathematical model. As they build their models, students use Excel to explore the consequences of their assumptions and gauge the reasonableness of their calculations. In the final phase, students use the internet to find an online car payment calculator. They must compare it to their model, describe similarities and differences, and reconcile any inconsistencies. Once their model is completed, students must then write a paper describing their model, its ingredients, and how it works. Requiring that students reflect on and articulate their solution has shown to be particularly effective at engaging the students' cognitive analysis, synthesis, and evaluation processes which fuel critical thinking.

Keywords: Mathematical modeling, critical thinking, holistic design, authentic tasks, problem solving with technology

The Marketization and Globalization through Universities' Webpage: A Comparative Case Study about Two Universities in China through Critical Discourse Analysis

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In this article, by comparing the English webpage of two universities in China, the Critical Discourse Analysis (CDA) framework will be adopted to analyze the webpage on both visual and verbal features to show the situation in China nowadays and the difference between the degree of globalization and marketization in comparatively developed and underdeveloped regions in China.

Keywords: Critical discourse analysis, globalization, marketization, university's website.

Comparing Multimedia in Student-Centered vs. Teacher-Directed Math Classrooms

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Traditional classrooms are identified as teacher-directed classrooms. Learner-centered classrooms have become more prevalent as research has directed instructional practices. This paper examines multimedia in teacher-directed and learner-centered math classrooms. The purpose of this paper is to encourage future research on the use of multimedia with different instructional practices in math classrooms. The theories discussed in this paper serve as the foundation for teacher-directed, learner-centered classrooms, and for the use of multimedia in math classrooms. Different studies are examined on teacher-directed and learner-centered instruction. Furthermore, studies are examined on the use of multimedia in different learning contexts and in math classrooms. Multimedia serves the purpose for personalizing learning. Choosing how to integrate multimedia into math classrooms is based on learner needs. Conclusions are drawn to on the findings from the studies in order to encourage future studies. Problems to overcome with future studies on the use of multimedia with instructional practices are discussed.

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Pre-Service Chinese Teachers Implementing a TPACK Framework in an Online Teaching Context

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Technology integration in teaching Chinese as a foreign language (CFL) utilizing Technological Pedagogical and Content Knowledge (TPACK) (Mishra & Koehler, 2006) has become a growing trend in teacher education institutions. The present study aimed to integrate a TPACK framework into a training course for preservice language teachers, focusing on building their capabilities in designing personalized Chinese learning projects.

The Chairman's Bao, a news-based graded reader for Chinese learners, was introduced to a group of CFL learners in a university in the northern United States. They chose three news articles of interest and let preservice teachers in Taiwan to design personalized Chinese communication classes. Each class was approximately 30 minutes long; for each class, the preservice teachers guided the CFL students through conversation topics and writing assignments. The preservice teachers were provided with the necessary content knowledge, teaching skills and techniques and technological resource via a teacher training course consisting of six online sessions. Moreover, after the one-on-one classes with the CFL students, the preservice teachers were asked to fill out a teaching reflection form that was developed under the context of the TPACK framework. Furthermore, after completing six classes, the preservice teachers were interviewed in terms of language teacher agency (White, 2018) – how contextual elements such as social, cultural, and interaction factors impacted their individual behavior during teaching.

For data analysis, a mixed-method approach was adopted. Quantitative analysis of coded post-teaching reflection and qualitative analysis of the interviews revealed that this teacher training model for online Chinese learning has three prominent features: contextualization, socialization and personalization. In other words, the preservice teachers designed and adjusted their teaching (contextualization) to the materials that individual students chose (personalization) by means of meaningful interaction (socialization) in each class. Particularly, the quantitative data under the TPACK framework demonstrated more weight on the implementation of contextualization and personalization while the qualitative data supported the importance of socialization during online language teaching.

The findings shed light on how the TPACK framework can be integrated into teacher education for online language courses, especially in promoting personalized language learning. This type of teacher training model could be utilized in cross-university collaboration for training preservice teachers for online Chinese classes; it would show promise in increasing mutual benefits between students and students as well as students and teachers. Pedagogical implications and research limitations of this study were discussed.

Keywords: personalized language teaching, synchronous learning, teacher agency, teacher education, TPACK

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Using a Chinese Language Learning Motivation and Learning Strategies Platform to Instantiate Personalized Language Teaching

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The present research is a pilot study on developing and evaluating an online platform for personalized Chinese language teaching. The overarching goal is to investigate the relationship between language learning motivation and learner characteristics, particularly focusing on the choices of language learning strategies. Previous studies on language learning motivation primarily focus on English as a foreign/second language. Although a few studies explore Chinese language learning motivation (Wen, 1997; Wen, 2011; Wen, 2013), those participants are in foreign language learning environments, and the relationship between their language learning motivation and strategies remains unclear. To fill this gap, this research project recruits Chinese-as-second-language (CSL) learners form a Mandarin training center with 5,000 students per year. First, we adapt relevant subscales form "Chinese Language Learning Motivation" and "Motivation and Strategies in Learning Questionnaire" to develop "Motivation and Strategies for Chinese Language Learning Survey." Second, with the developed survey items, we establish an online platform for data collection. Third, these instruments are administered to hundreds of CSL learners from various backgrounds via the online platform. Data analysis with factor analysis, multiple regressions, and t-tests are performed to address the research goals. We expect that different Chinese learning motivations would be associated with different language learning strategies; further, Chinese language learning motivations may vary across groups with diverse ethical backgrounds (e.g., the non-Asia group and groups form the East Asia cultural sphere) and different Chinese proficiencies. Pedagogical implications on utilizing these data to facilitate personalized language teaching would be discussed.

Keywords: Chinese language learning motivation, learning strategies, learner characteristics, proficiency level, second language acquisition

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Exploring the Possibility of Using a Humanoid Robot as a Tutor and Oral Test Proctor in Chinese as a Foreign Language

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College students studying foreign languages have the capability to learn vocabulary and grammar and can practice listening, reading, and writing skills by themselves, but they often lack opportunities for speaking and conversation. Robot-assisted language learning (RALL) provides a solution. In this paper, we present an exploratory study on using humanoid robots as tutors to automatically conduct dialogue-based tests with freshman. In the test, students examine pictures, listen to questions asked by the robot, and then say an answer. The test has three parts: answer freely, choose the correct answer by speaking the number, and read the sentence aloud, listen to some options, and choose the best sentence. After each answer, through speech to text (STT) technology, the students' responses will display on a screen immediately so that the students can ascertain whether their pronunciation or speech output is correct. In this paper, we describe the test design and setup and conduct a preliminary experiment. Finally, we provide an analysis from observations of video data and from students' comments and discussion. We also identify some necessary improvements for the robot, such as improving its sensitivity to the foreign language learner's voice.

Keywords: Robot-assisted language learning (RALL), Human-robot interaction, Educational robot, Chinese as a foreign language

The Relationship between Self-Determination, Success and English Language Acquisition: A Case Study of Human Determination, Self-Efficacy, & Success

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Although technology can overcome decontextualized practices of language learning, learners' success in independent language learning using the available technology depends on their motivation to carry out self-study. The Self-Determination Theory (SDT) suggests that some humans can remain zealous, motivated, and goal-oriented even when faced with challenges because of belief in their innate abilities. SDT explains such an individual's confidence in their inherent growth tendencies and innate skills allows them to recognize, pursue, and grasp opportunities that help them meet their psychological needs for competence, connections, and autonomy. SDT extends to consider the mediating and moderating factors, such as educational, family, and community supports, that can help individuals develop the levels of self-determination necessary to move beyond their current circumstances and improve their lives regardless of the obstacle they face along the way. Self-efficacy theory (SET) clarifies one's beliefs of primary motivation to achieve an explicit goal. Within the roles of behavioral perspectives, self-determination, and motivation, educational psychology draws the relationships between cognition and mental physiology that contribute to human educational development. The purpose of this case study was to observe and describe the lived experiences of a Pakistani trash scavenger who rose to fame as an educator and world-famous motivational public speaker because of his personal beliefs and intrinsic motivation to become fluent in English. The study was relevant because it documents correlations between the psychological and sources of personal motivation and self-determination in the language acquisition process.

Keywords: self-efficacy theory, self-determination theory, motivation, language acquisition, success

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Efficiency in Game Based Language Learning: A Meta-Analysis of Social-Network Gaming

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Using games as a learning tool for second language acquisition is not a new concept. However, game evaluation for learning and its quantifiable and reproducible measures remain a budding avenue for SLA research. Previous and supporting research for game evaluation is gaming platform and game specific, however this proposal focuses on the realm of social-network game-based language learning. The proposal addresses gaming learning technologies as it's currently used; the SLA theories that have driven gaming for learning; and some definition criterion for game-based language learning v. gamification. In this meta-analytic study, we aim to answer: what second language (L2) learning components are made most and least efficient in a social network game and by extension, other digital game-based language learning systems? The meta-analysis is compiled to determine quantitative effect using a program, Comprehensive Meta-Analysis (CMA). Future research design, though not carried out, is reported and will involve participants who are English as second language (ESL) learners. The games they use will have social-networking aspects for the goal of proficiency in the acquired language. Implementation, discussion, and results are theoretical as they are beyond the scope of this meta-analysis.

Keywords: SLA, social-network gaming, meta-analysis, ESL

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Analytics in Online English Language Learning Environments

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Learning analytics is the collection, measurement, analysis, visualization, and reporting of learners' progress, behavior, and interactions. As every student in an online environment leaves behind a substantial digital trail, educators and institutions of higher learning have access to enormous amounts of student data. Educators may use this data to identify student needs, support progression and retention, and enable a personalized learning experience. Within the field of English as a Second Language (ESL), there is increasing awareness that learning analytics provides insight into the complexities of language learning.

This paper provides a review of the literature available on learning analytics applied to English language learners (ELLs) in an online environment. While research specific to the application of learning analytics with ELLs is limited, this paper also examines research on methodologies and epistemologies generalizable to the topic. The aim of this paper is to synthesize research and findings in the field of learning analytics as applied to ELLS including cultural considerations and empirical evidence of affordances and challenges in the application of data and findings, to provide concrete examples and contexts for where learning analytics have been applied to drive decision making, and to identify gaps between theory and practice in the online environment as it pertains to ELLs.

Key Words: learning analytics, educational data mining, English language learners, ESL, EFL, ESP, higher education, MOOC

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A Preliminary Study of Pre-service Teachers'
Development and Reflections on Online Teaching

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The development of internet technology has gradually changed the way of language learning. Online synchronous lessons further promote learning without geographical restrictions. Due to its difference from classroom teaching, teachers face many issues: operation of teaching platform, change in teacher-student interaction, and change in teaching context. Therefore, training for online synchronous teaching is necessary.

This research observes both in-class courses of the "2018 Web-Based Chinese Language Teaching Practice" of National Taiwan Normal University, and online teaching collaboration with "Pre-Advanced Chinese Course" at the University of Virginia. The online-teaching practical internship was over the course of 14 weeks in the Fall Semester of 2018. During this training: theoretical courses, practical teaching, reflection and discussion are repeated. The questionnaire survey method was used to collect the reflections of 37 pre-service teachers. The performance of pre-service teachers' self-growth, action strategies and collaborative learning were then analyzed. When the course was concluded, we interviewed six graduates who became online teachers, analyzed their feedback, and discussed what benefits had derived from the training for their online teaching needs.

In this study, pre-service teachers learn foundational teaching theories, engage in reflective discussion, and participate in peer-to-peer collaborative learning. Mutual assistance and support are emphasized in group work. What kind of progress can result through this training course? What difficulties are encountered by these participants in the training? How do we come up with strategic solution? These are the questions we are investigating in this study. We wanted to explore the deficiencies in the training and various areas that requires further reinforcement and strengthening.

Comprehensive questionnaires and reflections from pre-service teachers, and interviews with current teachers after training, put forth the items that need to be explored in the future training online. This is to serve as reference for planning training courses of the

same nature.

Keywords: distance education, online synchronous teaching, teacher training, pre-service teacher

Effects of Scenery-Based Virtual Reality Dyadic Activities on English Writing for Tourism Purposes

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Due to the rapid growth of international tourism, English for Tourism Purposes (ETP) is gaining popularity in educational contexts across the globe. In particular, ETP writing skills are important due to the prevalence of written information used in tourism. Due to current insufficient training on ETP writing (e.g. tourist brochures), there is a need to innovate instructional methods for teaching ETP. This study engaged students in ETP writing with a scenery-based virtual reality (SBVR) environment with a pair-based activity design, as this was a feasible and effective learning mode to help learners acquire and record information in a VR activity. The use of a panoramic video-based virtual reality learning platform, EduVenture VR has been popular in English learning. The present study thus set out to investigate the effects of using the same VR platform to enhance ETP writing by immersing a group of students majoring in foreign languages in a scenery-based VR (SBVR) learning flow supported by dyadic learning activities. The SBVR experience was based on a video that included six destinations in Taichung City of Taiwan. Tourism-related knowledge and English usage (e.g. vocabulary and phrases), as well as their feelings at each destination were therefore transmitted orally and taken down on a worksheet in an alternating manner. A quasi-experiment was conducted in an undergraduate writing course was conducted. Pre- and post-tests (N=12), which consisted of a writing task about tourist destinations in central Taiwan, showed participants' significant improvement in (a) the essay structure (b) paragraph structure, (c) supporting evidence, (d) destination-related knowledge, and (e) destination-specific vocabulary. In addition, a post-survey (N=12) that aimed to measure the participants' perceptions about the SBVR dyadic learning revealed six

perceived benefits of engaging in the SBVR activities. The results were in favor of adopting this new learning mode. Future studies should design tasks using available interactive elements on EduVenture VR to facilitate vocabulary and knowledge acquisition for tourism-related genres such as brochures during the VR learning flow.

Keywords: English for Tourism Purposes, immersive virtual reality, writing, listening, dyadic learning

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Discovering the Effects of 3D immersive Experience in Teaching English Oral Communication of Students in College of Medicine

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This study investigated how 3D immersion program enhanced English oral communication of students from College of Medicine. The participants were students in two Freshman English classes of students from College of Medicine in Northern Taiwan. The two groups received identical healthcare professional-patient communication instruction and were asked to do role-play of the identical medical scenario within an identical time period (3 weeks and six hours in total). The control group (21 participants) wrote the script and performed the role-play on the stage, while the experimental group (26 participants) involved in the immersive exploration in a 3D immersion program- Omni Immersion Vision and created their own objects and avatars to do the role-play. The study used a mixed-methods approach to examine the learning outcomes, learners' behavior and their perceptions of the learning, by analyzing writings of the role-play script in two time frames (pre-test and post-test), video files of students' role-play (on stage and in the program respectively), learners' questionnaires and transcript of students' discussion about the role-play plots. The results indicated that while students from both group did not show significant improvement in accuracy of English oral communication in the posttest, learners from the 3D immersion group improved more in the dimension of richness and creativity of role-play script writing in the posttest. Also, while both group showed positive attitude toward role-play instruction of oral communication in medical context, learners from the 3D immersion group gave higher evaluation toward how 3D immersion program helped their role-play to be more interesting and imaginative. Lastly, the analysis of the group discussion script shows that students from 3D immersion group engaged in "exploratory talk", in which partners engaged critically but constructively with each other's ideas. In contrast,

learners from the on-stage group displayed more of the "cumulative talk", in which speakers built positively but uncritically on what the other has said. The study concludes that the 3D immersion program successfully boosts learners' imagination and creativity both in the learning process (role-play discussion) and the product (role-play of the healthcare professional-patient communication).

Day 3

Designing HAYA! ABC: Utilizing Transmedia Storytelling to Teach English to K-12 Online Arab ELLs: A Framework for Encouraging Online and Offline L2 Participation

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Learning English is valued across the globe and storytelling is an engaging and motivating tool educators can use to inspire language acquisition through fun and amusing use of the English language (Kirsch, 2016). In addition, though K-12 online learners are an understudied population, K-12 online learning has increased immensely all around the world due to the Covid-19 pandemic. This study focuses on the design of the online English language program, HAYA! ABC. In addition, through a review of the current literature, this study seeks to offer support for a new pedagogical method of engaging ELLs through the online and offline affordances granted to the learner through transmedia storytelling. The literature review for this design focuses on nations around the Arabian Peninsula who are utilizing the ancient tradition of storytelling to learn the English language. A method for choosing the sources for this review is presented and findings are discussed. Finally, examples of HAYA! ABC's transmedia storyline and its participatory language affordances are explored as they relate to the principles within the "four strands" Nation and McCallister (2010) set forth for language curriculum design. Future empirical studies will be conducted to gauge the effectiveness of the curriculum design proposed in this paper. The focus of this paper is on the research and design of this novel online curriculum.

Keywords: Arab ELLs, transmedia storytelling, STEM curriculum, comprehensible input, online language learning, K-12 online learners

Feedback in EFL Education in the Past Two Decades – A Visual Analysis Based on CiteSpace

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This study reviews literature on feedback in EFL education by means of bibliometrical method. The software CiteSpace is used to identify key patterns in the dissemination and spread of scientific information in the field of EFL feedback, in which key research areas, problems, cooperation network of authorship and key emerging literature are visualized and mapped to explore the main trends.

Based on 944 related articles retrieved from the Web of Science™ (1999–2019), we analyzed region distribution, word frequency, cluster, co-citation and major research directions of the literatures. This analysis, using mapping technology to explore the past, present and future of feedback research in EFL learning and teaching, intends to dig out hot topics of EFL feedback research and to suggest ways in which feedback can be better used to enhance its effectiveness in EFL classrooms.

Keywords: visualization analysis, feedback, EFL, CiteSpace

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Unlocking Taiwanese Athletes' English Learning Potential: A Multiple Culturally Responsive Model

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There is a widespread view that Taiwanese university student athletes, as a particular cultural group who mostly devote to athletic training, tend to have limited success in academic learning including English as a foreign language (EFL). While attending international sports events where English is predominantly used for communication, these athletes with lower English proficiency tend to encounter hurdles in communicating with foreign athletes or event referees. This action research, an integral part of an industry-academia collaboration research project, aims to investigate the effects of employing a multiple culturally responsive model involving technology-enhanced language learning (TELL) strategies, accounting for student athletes' cultural conditions and athletes' unique learning styles as cultural resources, with an attempt to motivate these athletes to learn English. Participants are 48 university student athletes, at a national sports training center in Taiwan, divided into three mix-EFL ability classes. Three-hour weekly English lessons in each class are taught with a total of 24 hours in 8 weeks in one semester. Mix-methods are employed involving a quasi-experimental design with one class (16 students) as the experimental group, taught by one of the researchers. Qualitative methods are primarily used, including classroom observations, teacher's reflection logs, fieldnotes, focus group and interviews. Teacher-student interactional processes that integrate culturally responsive teaching (CRT) and TELL were the focus of investigation. Findings are twofold; on the one hand, though the beginning and end of semester test results show no major improvement of English due to relatively short teaching hours (24 hours) in this semester, an overall improvement of students' EFL learning motivation demonstrates their satisfaction and appreciation of this innovative multiple culturally responsive model, involving CRT and TELL. On the other, the course teacher was found to be able to recognize student athletes' humble EFL learning history and particular learning styles such as highly-developed bodily-kinesthetic intelligences and high IT application as a net generation. Therefore, a significant proportion of language games, sports-content related materials and technology-enhanced practices was employed and did support EFL learning. The findings may shed light on the theory and practice of implementing both CRT and TELL

as an innovative multiple culturally responsive model into EFL classrooms for students from diverse cultural backgrounds, and on the educationalists or policy makers who are keen to enhance student athletes' motivation and communicative competence in EFL learning.

Keywords: Culturally responsive teaching (CRT), Indigenous athletes, Technology-enhanced language learning (TELL)

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Investigating Pupils' Cognitive Engagement in Augmented Reality-Supported Second Language Learning Classrooms

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Augmented Reality (AR) is one of the promising technologies that has been used in the educational field. It helps to increase learners' motivation, establish links with real-life experiences, and create contextual awareness. Yet current research in AR for education is still in its infancy and there are few studies regarding the integration of AR in language learning classroom. This study is part of an on-going pedagogical innovation project on AR-enhanced creating and sharing activities for pupils' Chinese character learning. The study concentrates on examining the effectiveness of the designed AR activities by focusing on students' cognitive engagement, in terms of the ICAP framework which helps to assess cognitive engagement with behavioural metric. A total of 53 grade two students from a government primary school in Singapore participated in this study. The findings of the study provide insights into designing and assessing AR-enabled activities in language classrooms.

Keywords: Augmented Reality, Chinese character learning, Cognitive engagement, Collaborative learning

A Glimpse of Pedagogical Impacts of Social Media: Mirror, Mirror on the Wall, Who is the Fairest of Them All?

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Etiquette Education and the use of social media for communication are key elements for learning, especially when the modern networking so prevail. The pedagogical purpose of this paper is to report on an investigation of user's behaviors on Instagram. Answers were sought to questions such as: Do users use Instagram? What genres do they browse? Are there any inappropriate posts seen on the Instagram? What solutions do users know how to resolve the inappropriate posts on the Instagram? And finally, how teachers can be involved in scaffolding or facilitating etiquette development? The study demonstrates how etiquette is 'behaved' in social media such as Instrgram.com. Given the fact that it seems politeness and behavior development has been missing in a digital age, what might be the best possible way of integrating etiquette education in the college English curriculum? The study discriminates among 512 comments and remarks from various ranges of users. Issues relating to awareness of bad conduct on social media platforms and whether social media users filter what they follow, and FOMO (as THE FEAR OF MISSING OUT) are tackled. How the phenomenon of comparison, leaving nasty comments, appealing body image is the thief of joy in social media? It is suggested that Etiquette teaching needs to be extended into the standardized English curriculum at university level.

Keywords: Social Media, pedagogical, FOMO, Instagram, etiquette

Creating an Interactive Virtual Environment for Promoting Tourism English

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EFL classrooms may, understandably, be unable to provide all of the authentic contexts essential for language learners. Today's virtual technology is able to provide realistic situations that can complement what traditional classrooms provide. Past research has shown that learning in a virtual environment greatly enhances students' interests as well as their academic abilities. Because the virtual platform allows learners to interact with objects, events, and other users in virtual space, it creates a meaningful learning experience in which learners can more effectively expand and perfect their knowledge.

This research project involved students in a multi-user e-project effort to promote tourism English and to cultivate critical thinking and creativity. A quasi-experimental study was adopted to investigate the effects of a VR-design project and a traditional web-design project and to compare students' motivation, collaboration, perception of task value, and technology use. The study results showed that between the two groups there was no statistically significant difference in their language performance in regard to tourism English. However, significant differences were found with the VR group in terms of students' intrinsic motivation, collaboration, and technology use.

Keywords: Virtual environment, virtual reality, technology enhanced language learning, and experiential learning

Combining Technology and Board Games for Language Learning

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A language learner should interact with the world in the target language. With interactive, the learners could have feedback to fix their misunderstanding of the language. However, a lot of language learners afraid to use the target language. Many studies have demonstrated that using the game in language learning could reduce the learner's anxiety. Most of the studies focus on digital game-based learning. While playing digital games, the players don't really need to use the target language to achieve the game goal, even in the massively multiplayer online games (MMOGs). Using board games in language learning is another choice. While playing board games, the players need to make a lot of interaction with each other. The first part of this qualitative study examined the role of games in second language learning. In the second part, we examined the different types of board games that focus on different language skills, including vocabulary, grammar, narrative, and reasoning. In the third part, we discussed the shortage of using board games in language learning and the possible solutions with technology.

Keywords: Language Learning, game-based learning, Board Games, Technology Enhanced Language Learning

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Integration of Students' Self-Designed VR Materials into English as a Foreign Language Learning Classroom: Effects and Pitfalls

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This presentation reports a study investigating how integrating virtual reality (VR) into English as a foreign language (EFL) as an immersive environment affects a group of elementary school children's learning. According to Vygotskian's social constructivist view, learning takes place via learners' social interactions and active participation. A virtual environment allows users to interact and have been applied to enhancing foreign language or second language learning via social interaction (Hsiao, Yang, & Chu, 2015; Liaw, 2019). As VR technology advances, it now allows users to generate their own materials. Student self-designed VR materials have been found to enhance student collaboration and multimodal meaning-making (Ho, Nelson & Müeller-Wittig, 2011). However, little has been done to investigate the effects of integrating student self-designed VR materials into EFL learning. In our study, we looked into if/how EFL students, by using CoSpaces Edu, collaborated to create VR materials. Furthermore, the study sought to answer the following questions: 1) What were the language learning affordances provided by the self-designed VR environments? 2) What were the learners' perceived advantages and disadvantages of the VR approach?

The study involved 24 elementary school EFL students in Taiwan. The teacher first grouped the students and had each group create 4 VR scenes as well as the dialogues of the avatars in the scenes using CoSpaces Edu. At the end of the semester, each group put together the 4 scenes and the dialogues to create a scenario. The scenarios were then shared with other groups. To answer the research questions, the participants' interaction while creating dialogues were collected and analyzed for their collaborative behaviors. The dialogues of each scenario created by the students were analyzed for their language learning performances. Interviews with the students were conducted for their responses to the VR approach. Preliminary findings indicate that the participants could be categorized into 4 levels of contribution (Webb, Nemer & Chizhik, 1997) while completing their scenes and scenarios collaboratively. Their use of the vocabulary and

sentence patterns taught in class in the VR scenarios were analyzed. The sentence lengths of the dialogues and the number of turn-takings increased as more scenarios were used. The participants responded that they felt engaged in the VR and their English performances were improved by creating dialogues collaboratively. However, they also found that the VR box caused dizziness and eye fatigue. Pitfalls in this study were the time-consuming familiarization and implementation of VR materials, the management of class discipline, and functionality issues of the VR environment and Internet connection. Based on the findings of this study, we provide suggestions for EFL teachers who would like to apply VR to their teaching.

Keywords: Virtual reality, Social constructivism, Collaborative learning, Self-designed VR materials, English as a foreign language

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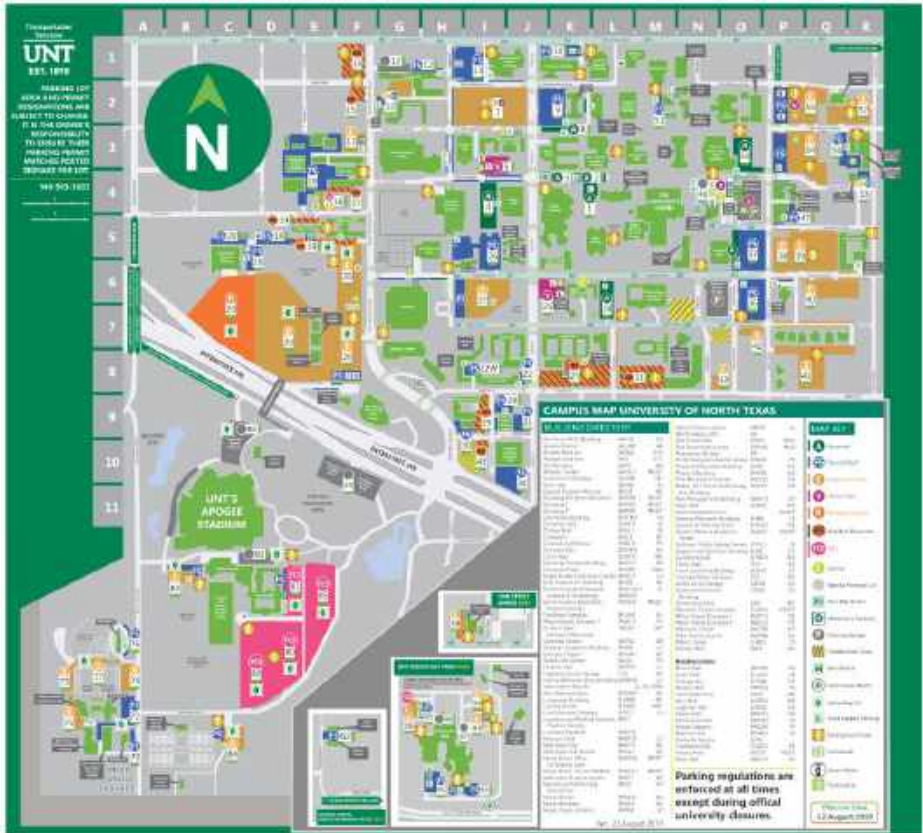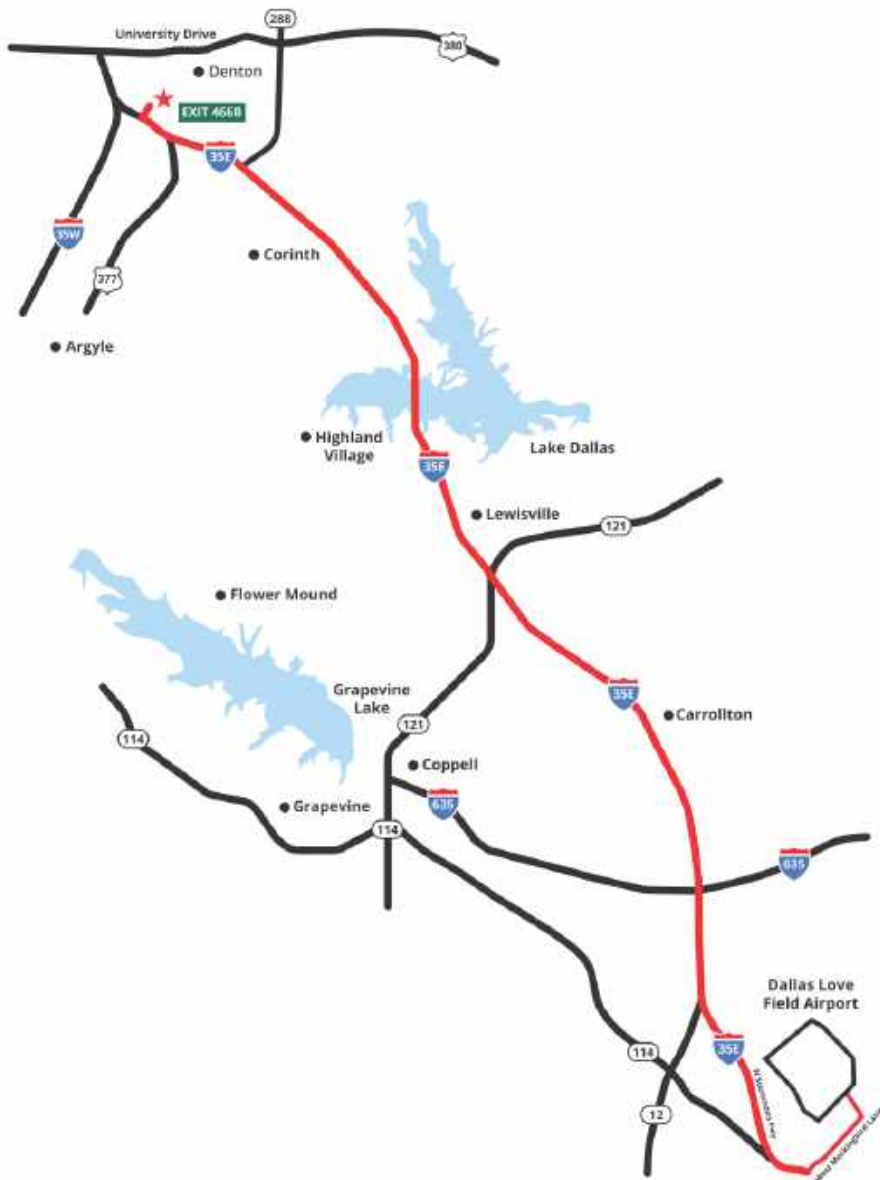

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