

透過 ARCS 全英教學模式提升奧運選手 運動英語口說自信

邱怡靜* 安德魯**

摘要

在高度需要使用英文的國際賽事中，台灣選手面對英文媒體時缺乏自信心與自我肯定。因語言挑戰與政治因素，這方面實證之研究較少。故此，本研究採文化相關教學法與認知行為動機理論，針對 92 名選手大專生探索 ARCS 模式在疫情期間之英文學習中導入運動英文與奧運相關課程，以 ARCS 對專注於東京奧選手體育英語的培訓內在動機與英文自信。為此，本研究採用混合研究方法：量化資料含英語口筆測試前測和後測、ARCS 問卷和質性之個人訪談。結果顯示，選手最初對英語口語的自信心偏低，經過體育對話練習，與媒體問答，在後測時英語口語分數顯著提高，最終呈現較高自信，並具有高度注意力，體育相關性、英語口語自信心、和對英語滿意度。口說英語的信心，有賴做好與媒體接觸的準備，並和本地英文榜樣操練體育對話，藉由文化回應模式培養口說能力。在疫情期間英文課程頻繁混合線上搭配實體進行，但運動員學習者更喜歡面對面學習英語。本研究發現將可提供未來相關研究的啟示與建議。

關鍵詞：ARCS 注意力相關性自信心滿意度動機模式、選手英語自信心、英語口語動機、文化回應教學法、全英教學

* 通訊作者：文藻外語大學英國語文系教授。

** 文藻外語大學英國語文系專案講師。

Enhancing Olympians' Sports English Confidence by the ARCS Model in an EMI Course

Jean Chiu* Andrew Harold Cutler**

Abstract

With the high demand for English in international sporting competitions, Taiwanese athletes face the dilemma of low confidence and low self-esteem when interacting with the international media. Due to the language difficulties and political challenges, studies lack empirical English research on English competence and confidence levels for the Chinese Taipei Olympic athletes. The following study investigated the impact of the cognitive-behavioral motivational model of Attention Relevance Confidence Satisfaction (ARCS) with Culturally Responsive Teaching (CRT) on 92 athletic students as they attempted to make Sports English learning relevant to their sports training. The researchers strived to maximize their intrinsic motivation and create culturally responsive professional material to aid their language acquisition in an English Mediated Instruction (EMI) course. The ARCS interventions during the Covid-19 pandemic ushered in a hybrid learning environment by focusing on training for Tokyo Olympics sports English. To this end, a mixed research methodology was adopted: the research methods included pretest and posttest English proficiency tests, ARCS questionnaires, and individual interviews. The results demonstrated significantly improved English-speaking confidence and scores, positive English learning motivation in attention, relevance, confidence and satisfaction. The level of English-speaking confidence is to aid cognitive readiness in media and sports conversations with role models and patterns. The Hybrid teaching mode was carried out frequently, but face-to-face learning was preferred by the language learners. Implications and recommendations for future research are provided based on the findings of the study.

Keywords: ARCS model, athletes' confidence, English learning motivation, Culturally Responsive Teaching (CRT), English Mediated Instruction (EMI)

* Corresponding Author Professor, Department of English, Wenzao Ursuline University of Languages, Taiwan.

** Contract Lecturer, Department of English, Wenzao Ursuline University of Languages, Taiwan.

Introduction

Taiwan is in need of international recognition and competitiveness, evidenced by 12 Olympic medals despite Olympians' apprehension in English and athletes' generally low self-esteem for political and English challenges in representing Taiwan as Chinese Taipei (Chou, 2021; Welle, 2021; Yang, 2021). Taiwanese athletes similar to other non-English native speaking athletes are pressured to overcome psychological factors to master international media's English interviews with the support of English Mediated Instruction (EMI) (Hsu, 2023) for stereotypes of athletes' academically weak 'zero-English' image (Aguilar et al., 2021; Jolly, Cooper & Thomson, 2020; Yang, 2021). Taiwanese athletes' international participation was limited by their low English proficiency, low confidence in English speaking, and extrinsic motivation in academic absences (Chiu & Yakovleva, 2019; Weng, Murray, & Lin, 2022). While Weng, et al. (2022) explored the extrinsic-intrinsic motivation of English learning of athletes, few studies focus on using Olympic athletes' sports expertise to improve their English. One of the motivation researchers Cognitive-behaviorist Keller (2020) developed a trigger measuring motivation for cognitive, affective and behavioral outcomes by four learning conditions of Attention, Relevance, Confidence and Satisfaction (ARCS) model. This study addresses such a research gap of Olympic athletes' professional sportive excellence, low academic proficiency, low English motivation and confidence in Sports English communication for overseas competitions in an EMI.

The Covid-19 outbreak necessitated distance learning with challenges for lower-proficiency learners in socially isolated environments Calderón, et al., 2021; Mahyoob, 2020). Researchers in various regions found motivation related to Culturally Responsive Teaching (CRT) approaches (Ladson-Billings, 2005; Yi, Tsai, & Yang, 2015) and ARCS model to increase learning motivation (Varea, González-Calvo & García-Monge, 2022) as athletes are quarantined without face-to-face interactions with their instructors or peers. Thus, the gap of athletes' needs can be bridged by ARCS model in culturally overturning low proficiency in English by sports knowledge (Li, Chen, & Li, 2018; Li, Yang, & Zhang, 2020; Keller, 2020). The ARCS model entails competence development to cognitively apply new knowledge to kinesthetic strength in sports English.

During the Covid-19 pandemic outbreak, athletes continued their overseas competitions and academic pursuit, so Covid-induced hybrid modes played an important role as some athletes engaged in face-to-face learning in the classroom. The current study focuses on the impact of the ARCS model for Olympian-oriented university student athletes' confidence and motivation in general English courses transformed to be sports-related English specialized in diverse categories ranging from boxing, track and field, taekwondo, karate to other combat sports in different Covid-induced hybrid modes as the severity of the pandemic fluctuated during 2019-2022.

Research Questions

The research questions of the study are as follows:

1. To what extent would the ARCS model impact student athletes' experience of Sports English confidence?
2. How did student athletes perceive Sports English learning in Covid-induced hybrid modes?

Literature Review

The review of the literature is pertinent to the theoretical framework of Culturally Responsive Teaching (CRT), the ARCS model and teaching professional content in English.

Culturally Responsive Teaching (CRT)

The concept of CRT originated from Gay (2000) is the educational belief that culturally diverse and disadvantaged students need a different curriculum and educational approach (Taylor & Sobel, 2011; Tsai, 2001; Chiu, 2015, Lin & Yang, 2015). CRT changed General English teaching into a culturally responsive environment to tailor for students' cultural and holistic backgrounds and originated to enhance English and math learning of African-American and Hispanic students (Gay, 2010).

Culturally Responsive Teaching can help regard athletes' strengths as assets that the curriculum and faculty should be responsive to identify learners' assets, modify the curriculum and to integrate their strengths to avoid low self-esteem by "dumb jock" or "poor academic scores" labels (Person, Benson-Quaziana, & Rogers, 2001). The current study would deploy role models of athletes in English. Regarding this lack of role-models in sports, Jolly, Cooper, and Chepyator-Thomson (2020) also argue for holistic self-identity aligning with career development through CRT with leadership development and professional mentorship (Chiu, 2017, 2018; Chiu & Cowan, 2010). Role models and leadership will thus be exercised in the current study for English competency building.

However, there are two challenges for CRT integration in English in Taiwan: 1) front-line educators need to modify their pedagogical approach (Taylor & Sobel, 2011; Hsu, 2023) to facilitate English learning and assessment (Tsai, 2009), and 2) after the outbreak of the COVID-19 pandemic, global education has shifted online, yet sports teaching and teachers are used to the face-to-face- norm of physical contact and high immediacy 'hands-on' sports training (Varea, González-Calvo, & García-Monge, 2022). Thus, remote learning, face-to-face interactions, and a hybrid mode may better fit student athletes who are quarantined or overseas. CRT will serve as the theoretical framework to help athletes to connect cultural characteristics to enhance their weak academic subject of English by sports in the current study (Gay, 2000, 2010; Taylor & Sobel, 2011; Tsai, 2009).

ARCS Model

Motivation has been a key concern for researchers across education and Keller (2020) developed the model of motivation ARCS model by attending to the four learning conditions of Attention, Relevance, Confidence and Satisfaction to better motivate cognitive, affective and behavioral outcomes. ARCS is the feasible pedagogical bridge to realize the cognitive input-process-output to rebuild learners' motivation in strengthening their English in real life sports context (Keller, 2020; Tsai, 2001).

The ARCS model has been primarily practiced and researched in different regions across academia for quantitative research (Keller, 2020; Li & Keller, 2018; Li, et al., 2020). First, attention aims to attract perceptual arousal by visual and auditory stimulus, so that motivation can be maintained in the instructional process (Powers, Koestner, Lacaille, Kwan

& Zuroff, 2009). According to Li, Yang, and Zhang (2020), motivation can be an issue for L1 Mandarin speaking learners due to fear of grammatical errors and lack of reading comprehension in English. Nevertheless, this could be dealt with by Tokyo Olympics games and role plays through peer interactions.

Relevance is the element which relates learning to their goals and process-oriented activities, drawing on past experience, present worth, future usefulness, with needs matching and modeling (Li et al., 2018). Li, Chen and Li (2018) found relevance was effective in Hospitality English-related vocabulary mastery in meaningful objectives, yet ineffective compared to tourism financial benefits. Thus, curriculum shifts need to replace textbook-oriented grammar progression by successful athletes' role models in English interviews for future needs.

The athletes' weakest element, Confidence, is the esteem in oneself by accomplishing learning tasks and assigning learning value for their effort (Keller & Kopp, 1987). According to Lin and Yang (2015), low-achieving indigenous students could build up their confidence in English speaking and English motivation with the support of a buddy system. Similarly, Weng et al. (2022) urge empowering athletes' low achievers' self-esteem and identity prior to English acquisition. The current researchers wonder if self-confidence will increase given kinesthetic buddy support in sports-related English communication.

Satisfaction is the sense of accomplishment in the learning process and outcome, with authentic circumstances, positive output with immediate verbal appraisal (Keller, 2020). The learning process requires gradual challenge and positive reinforcement through achievable tasks based on motivation and confidence. Connecting the CRT-based curriculum (Jolly, et al, 2020), there are also issues of instructors' tasks in teaching professional content in English to connect strengths and weaknesses in real-life communication needs.

Teaching Professional Content

In addressing CRT-based instruction for athletes, English instructors encounter professional content knowledge and language challenges, similar to English for Specific Purpose (ESP), and English Mediated Instruction (EMI) (Gosling & Yang, 2022; Yang, 2016). In the EMI context of Taiwan, Hsu (2023) found that basic psychological needs negatively and significantly influencing learners' willingness in engaging in EMI, however, psychological capital positively and significantly enhancing learners' EMI engagement, given sufficiently positive perception value of English. This echoes the psychological gap found by Yang (2016) as well as Weng, et al. (2022) in the strong pedagogical needs of course types and intrinsic English motivation of athletes. Hence, it is crucial to immerse the positive perception of practical value of English to connect real-life athletic-field for EMI in Sports English practical linkage and achievable goal. Regarding professional needs, Flowerdew (2013) advocates course starts with needs analysis, curriculum design, materials selection, methodology, assessment, and evaluation. In the need analysis phase, it is important to provide authentic and relevant English input for desired outcomes, thus EMI planners need English input sources from real life professional discourse, which will be required for future careers (Hellekjær & Fairway, 2015). In the career development process, Batsila and Shrestha (2022) echo career English speaking skills as the most needed in a 1-100 scale

(Mean=84.20), while listening is equally needed in order to properly respond to interlocutors. Hence, the proposed research was situated in the EMI context for English sports-language-focus on kinesiology knowledge, training and athletic rules by news websites and athletes' storytelling. Instructors thus need to overcome learners' speaking difficulties, differentiation teaching models, and the need for professional content development (Roberts & Inman, 2015). Kinesiology delivery in learners' high professional level and low English level is thus a key for the English pedagogy, to shift from General English to professional EMI content, with oral communication-oriented sports skills in need for overseas sports competitions.

Curriculum Design and Research Methods

Research Methods and Context

The study was a mixture of qualitative and quantitative research taken from October 2019 to October 2022. To triangulate the data, there were three sources of data: 1) pretest-posttest of English proficiency exam modified from GEPT test (Oral Test Criteria in Appendix 1), 2) a semi-structured ARCS questionnaire modeling after Keller (2020) and Li, Yang and Zhang (2020) on a 5-point Likert-Scale, and 3) individual interviews (See Appendix 2), 4) on a) how the participants perceived the classroom motivation, b) relevance of teaching and learning content, c) their level of confidence and d) their satisfaction over their speaking in week 12. The interviews were conducted in Mandarin mixed with English, translated into English by the researchers and verified by interrater reliability.

Participants

There were 92 athletic participants including 52 males and 40 females, with an average age of 21 years old, who were recruited for the authors' sports-oriented Advanced English class in a convenience sample during Fall 2019 to Fall 2022. Based on GEPT oral test on a picture and questions to answer about their sports experience and dream, those who scored over 3.7 out of GEPT 1-5 scale were higher-intermediate level (20%), those between 3.7 and 2.0 were at lower-intermediate level (approximately 40%), and those below 2.0 were at a basic proficiency. Overall, the participants' English proficiency level placed on average between low and lower intermediate tier. The valid return rate of the questionnaire was 87.76%.

Instructional Interventions

Regarding the Covid-19 online contingency measures, there were three teaching modes regarding patterns of online and face-to-face teaching delivery:

- In week 1-4, a) the face-to-face mode was conducted in a regular classroom.
- In week 5-8, b) a hybrid model was implemented with the provision that the teaching assistant and the class engaged in physical English learning in a computer lab where every learner had computer, keyboard and headset with microphone; English instructors and quarantined students (in hotels).

- In week 9-12, c) entirely distance learning took place where individual learners engaged in online learning from personal dorm rooms and teachers at distance.

To maximize teacher-student and student-student interactions, pairs or trios were pre-arranged from a distance for b) and c) modes, with rapport built in the first phase. The platform used was a closed all-encompassing functioning commercial software of visual and audio transmission with text messages in a chatroom during video broadcasts with occasional lagging.

The ARCS motivation design was illustrated below in Table 1. According to the model of Flowerdew (2013), curriculum design, materials selection, teaching and assessment are fundamentally different in the EMI curriculum design.

- CRT curriculum design changed from a cognitive-theory, grammar-oriented Oxford textbook series to brainstorming questions of athletes’ background for Olympics.
- ARCS exercises knowledge creation by discussing and understanding individual athletes’ sports category rules and sports action with their demonstration and a pair English media interview to answer Olympics sports-related questions for authentic and professional oral communication.
- EMI video and news of Tokyo Olympic pictogram (symbols) Olympics history and Paralympics sustainable development of Tokyo Olympics.
- physical body parts and injury (ex: concussions for taekwondo and karate).
- sports actions (ex: punching, kicking for taekwondo and karate).
- sports rules (scoring, penalty, appeal and referees).
- media English for champion by local celebrities’ English interviews.

Table 1

Theoretical Framework and Strategies of the Study (Flowerdew, 2013)

Design	Traditional Model	EMI Model
Needs Analysis	English as Foreign Language (Basic)	Sports English
Theory	Cognitive theory	Culturally Responsive Theory
Strategies	Grammar translation	ARCS model
Role of Athletes	Passive EFL learners	Active sports English learners
Role of Teachers	EFL Knowledge transmitter	EMI Kinesiology facilitator
Teaching materials	Oxford textbook	Role model’s English interviews & news
Language Focus	Present and perfect tenses in travel	Sports English listening/speaking
Pedagogical methodology	Grammar exercises, speaking practice	Sports-oriented dialogues
Assessment	Written/ oral exam	English interviews with media

The pedagogical task was to create a demonstration of how the language-learners were empowered to use English in their interactions with other athletes.

The final assessment primarily focused on two tasks: 1) English interviews with media, and 2) ARCS authentic English dialogue in sports-field context model by GEPT speaking rubrics (GEPT, 2016) as shown in Appendix 1, which aims at reading aloud (pronunciation) and introduction of sports-related dialogue in familiar situations (content accuracy and grammar). Based on the GEPT rubrics, two teacher researchers evaluated the oral test which was recorded and the students' oral scores were the average of both teachers. The written test was a standardized test of reading, listening and simple writing tasks of fill-in blanks. The scores were based on correct responses to a set of standard answers.

There were interview patterns set up to role play Olympics champions, first to thank the organization host, next to thank the National Sports Training Center of Taiwan, later to coaches for impact and mentor, and for family and fans' support in the one-minute English media interview. The script was composed by researchers for athletes to fill in and read aloud in English. The second sports-related dialogue was designed for them to interact overseas. The ARCS sports interview was followed research interviews conducted in Mandarin and English, later translated by researchers.

Instructional interventions covered sports-oriented self-composed stories and sports-rule role-play and peer activities based on news reading. Progress was tracked through pre- and post-tests, questionnaires and interviews.

Data Analysis

To triangulate the data, data analysis was conducted first by quantitative data for 1) GEPT pretest-posttest to be statistically evaluated by SPSS Version 29 for pair-t-test to verify if a significant progress existed; and 2) the descriptive statistics of the ARCS questionnaire results. The reliability was .81 and the validity was .84. Next, the qualitative data in the interviews were to be analyzed by thematic analysis of six-phase process by Braun and Clarke (2006) on Attention Relevance Confidence and Satisfaction. The qualitative data was analyzed for the ARCS themes regarding how the participants perceived the classroom motivation, relevance of teaching and learning content, their level of confidence and their satisfaction over their speaking, to provide a deeper understanding of the athletes' competence levels and perceptions of the ARCS to mediate for the CRT environment.

Results

To answer Research Question 1 regarding the impact of ARCS on athletes' Sports English acquisition, the following section presents 4.1 Attention, 4.2 Relevance, 4.3 Confidence, 4.4 Satisfaction, followed by 4.5 Perceptions of Hybrid Modes of Learning.

The athletes significantly increased pretest and posttest scores of written and spoken English.

- Pretest oral scores based on scoring rubrics of GEPT basic level grading criteria $M=2.5$; Posttest oral scored increased to $M=4.3$ ($t=-.03$, $p < .00$).

To answer RQ1 qualitatively, participants demonstrated evidence-based progress from week 1 self-introduction to week 12 English interviews. Initial oral pretest of English conversation by Participant 91 with the teacher of the week in Week 1 (*italics made to emphasize accents for the study*):

T: Hi, can you introduce yourself and your sports?

91: *Me, taekwondo. No English.*

T: So, you are in the taekwondo team. May I know more about you? Do you have an English name?

91: *No, no English name. Just Jay.*

T: Is it your Chinese name?

91: No. Jay is a Korean name.

T: OK. What is your dream for the future?

91: Tokyo Olympics.

T: Good for you!

From the GEPT (2016) speaking rubrics, the first answer was rated score 1, as there was no sentence structure and lacking vocabulary severely in ‘Me, taekwondo.’ While ‘No English’ referring to I do not speak English, it was difficult in his verbal expressions, with pronunciation difficulties for score 1, not even score 2.

Final oral posttest by Participant 91 in Week 12 after the ARCS program tailored for acceptance speech and sports conversation:

T: Hi, can you introduce yourself and your sports?

91: Hi! I am Vincent. *I am in the taekwondo team of Taiwan.*

T: It is nice to meet you. I am Jean from the UK football team. Taekwondo sounds interesting. Can you share with me some taekwondo rules?

91: Sure! It is *a pair match, using punches, kicks and throws.*

T: Okay, but how do people score and win a match?

91: Well...I will show you 1 to 3 points.

Ippon (three points) is for turning your opponent over to the ground and punching the head. Two points is for kicking mid-level body *like this*. Yuko means one point.

If you punch the upper body *like this* (with actions), it is one point.

T: Great. Do we need 21 points to win a match, like in badminton?

91: No, we don't. In 3 matches of 3 minutes, who has more points wins the game.

T: Thank you very much.

91: You can come to my match tomorrow.

T: Sure. I will see you there.

Participant 91 improved to score 4 in overall correct and natural pronunciation for easy comprehension for speaking performance; and smooth delivery on his sports category. Regarding the content and grammatical performance, there was a satisfactory command of grammar, and professional vocabulary repertoire, with language structure modeled after the teaching sample. Content answered the questions on sports scoring, and the length of the participant's English conversation increased, with fluency in introducing taekwondo rules. The teacher researchers' facilitation and ARCS training and rehearsing over 12 weeks.

Pretest GEPT score on English reading, listening and writing was 67; posttest was 83 ($t=.04$, $p<.05$)

- Pretest self-perceived English speaking skill was 2.35, and posttest 4.30 ($p<.00$) out of 1-5 scale; in the outset of the study, participants of higher-intermediate English speaking score rated themselves 2.8 and increased to 4.3 ($t=-6.7$, $p<.05$), while lower-intermediate ones changed from 1.5 to 4.0 ($p<.00$). The higher-intermediate's perceived their English from 3.7 to 4.7 in the posttest. Their overall English speaking performance was increased by this model.

Athletes' English Acquisition Attention

To answer Research Question 1 on how the ARCS influenced athletes' English, there is an overall questionnaire result in a 1-5 Likert scale (See Table 2 below).

Table 2

The Athletes' ARCS Descriptive Statistics

ARCS Dimensions	Mean	SD
Attention	4.85	.98
Relevance	4.86	.94
Confidence	4.45	.94
Satisfaction	4.95	1.17
Average	4.78	1.01

At the terminal of the Sports English program, the findings on Attention demonstrated a high level of perceived motivation ($M=4.85$, $SD=.98$). Keller (2020) first condition of Attention was particularly effective on athlete participants' kinesthetic and simulation role plays and musical-audio stimulus on role play conversation in night market ($M=5.0$, $SD=.89$), enjoying filling in the blanks of English pop songs, ($M=5.0$, $SD=.71$), enjoying order western menu ($M=4.7$, $SD=.70$), Covid-19 home restaurant ($M=4.6$, $SD=.90$) and motivated to learn English with others ($M=4.8$, $SD=.87$). Cultural themes of local Taiwanese folklore and culture are reported as important for real-life dialogues with overseas members in the context. Participants' motivation was effectively triggered by the audio-musical intelligence (Gardner, 2000) and filling in the blanks for Keller's (2020) strategy of incongruity and inquiry. They were motivated by survival-related English conversations on local and western food. Participant 11 explained in the CRT perspectives:

If I can introduce the local culture to the other foreign athletes who would ask about Taiwan, I would like to share iron eggs and oyster omelets in New Taipei City and Tainan. I enjoy reading aloud sports English and cultural English pieces after our teachers, too. I love sports and I like to eat, so it is fun to learn about local food...in English! This way I can be a local guide to foreign athletes next time they come to Taiwan for games...

Participant 2 added in the informal interview:

I think I will become willing to learn sports, English and local culture in this program. It was after I was touched by the Taiwanese tennis player's story: Lu said when he was thirteen, he was unable to order Chinese fried rice and fried noodles in English in an European training experience. Because he spoke no English, he did not have dinner...I guess he must have had a big breakfast in the hotel. Then, I want to learn how to speak English when I compete overseas...

Discussion of local food and local cultural connections seemed to increase the motivation of English learning for most athletes. The cognitive process was reflected through the social bonding that students built during their activities together. The tour guide activity helped students learn how to interpret one's own culture in English, which seemed to be a crucial motivating factor for CRT. It motivates athletes' English learning as the teaching approach responds to their needs for relevance to their profession.

Relevance of Sports English

The ARCS program was highlighted overall in Relevant interventions (M=4.86, SD=.94), demonstration of gestural sports games (M=5.0, SD=1.08), Olympics websites (M=5.0, SD=.99), Olympics vocabulary video (M=4.7, SD=.90), introducing my sports in English (M=4.5, SD=.92) and ability to have a simple dialogue of my sports overseas (M=4.2, SD=1.04). The Olympics sports actions and how to conduct English interviews. ARCS helped participants by creating a sports-relevant environment in English. It also inspired participants by champion role models in English: Taiwanese tennis player Randy Lu and golf player Yanny Tseng to speak in English to the media. Participant 3, expressed her positive view of the relevance of the English:

I like our English lesson because I learn how to use English to introduce the rules of my sports category (gymnastics). Also, I quite enjoy the English sports news lesson on Taiwanese local sports figures. For example, Taiwanese tennis player Randy Lu is great: he can use English to express his feelings with ease. His English is so good and fluent in the news interview. Sports English is not easy for me, but I hope I can also use English to communicate with foreign athletes one day...

The example above describes a successful senior athletic figure, who is capable of introducing her sports and feelings and discusses how she considers Randy Lu to be a role model.

Participant 63 added:

I felt I am more interested in English because sports English is what I need. I think my English listening comprehension has become better for English sports. Most of the time I tuned into Mandarin sports news on TV and smartphone, never in English. After the practice of sports conversation and activities, I am more capable of having English conversations as I see Yanny and others changing to be English speakers internationally...but it is a bit difficult.

The main feature which caused Participant 63 to be engaged in English was the *relevance* of professional performance: “because sports English is what I need” in professional competitions overseas. Rather than using textbooks to teach tenses, it is preferable to connect athlete students’ career life and future overseas cross-cultural communication competence. However, it is difficult in sports terminologies, kinesiology (ex: upper body muscles, punching, kicking, turning over for combat sports karate), sports rules (scoring, penalty, appeal and referees) and different knowledge of world sports. Sports English has changed most participants’ vision in the Olympian training, and Participant 63 later qualified as an Olympian and won a bronze medal. Interviewing was familiar for them, yet the Sports English was indeed professionally difficult in language acquisition perspectives. Hence, developing Sports English materials at the learners’ level is a priority. English motivation in this study was extremely high (M=4.85 for *Attention*), yet the average *Relevance* was high 4.68, which is slightly lower due to its technical difficulty. This in turn impacts the following dimension of *confidence*.

Athletes’ English Confidence

The athletes’ English Confidence level was moderately high (M=4.45, SD=.94). Olympian participants ranked highest on ‘becoming more confident introducing myself in English’ (M=4.9, SD= 1.04), followed by ‘assured of myself in group conversations’ and ‘more confident than before in speaking up in English’ (M=4.5, SD=1.02), ‘more sure of my English in upcoming trips’ (M=4.2, SD=.81) and closing at ‘I can speak with foreigners openly’ scored at the lowest of 4.1 (SD=.90). The open-ended conversation posed a challenge for the lower-achieving athletes’ self-esteem: Participant 41 went to the US for overseas training and an American journalist remarked that ‘the Taiwanese athlete speaks little English’.

Lower-achieving Participant 54, a karate athlete shared his feedback in the questionnaire:

I think at first my English was not good at all (pretest 48 in written English and 65 in oral English in pretest, with 85 for both in posttest), so I should not be in this class A. At first, I actually felt stressed, because I could not speak up in English like others did. However, I found English is not that hard. Sometimes there are words I do not know, and I can use an online translator. I now feel I am more confident in speaking English....

Participant 54 had difficulties in reading comprehension, pronunciation and grammatical tenses. He had struggled with reading English text aloud, and changing tenses. Similarly, Participant 41 also expressed negative views about her English at first, but later indicated increased confidence:

I didn't think my English was good before this class (pretest 81 in written test and 75 in oral pretest, with 90 for written and 86 for oral in posttest). I think I am more confident now in English. I am very interested in introducing Taiwanese night market food to my future foreign friends in English. I used to think my English was poor, but now I imagine I am a local tour guide for Tamsui iron eggs and oyster omelets. Just by speaking after teachers, I am stronger in English vocabulary and grammar. I also like to learn English pop songs in weightlifting exercise, so making everyday life in English helps me break through my bottleneck in training and English.

Contrary to Participant 54 her low self-confidence, her English pretest of 81 and an oral test of 75 in the pretest needed the *holistic English competence threshold* of 90 for her written exam and 86 for the final oral score. Confidence was not as easily achieved, compared to attention and relevance. It requires accumulating sufficient experience of practicing social-linguistic components of reading, speaking and writing on sports English. It can be increased by exercising the dialogues with partners, discussing local issues with *imaginary foreign* partners. It also helped intermediate-achieving participants trust in their English and lower-achieving ones start to believe in their possibility in CRT role play. After reaching their English speaking goals, they developed confidence and a sense of achievement, evidenced in the next section.

Athletes' Satisfaction in English Acquisition

The English program Satisfaction was extremely high with the average of 4.95 (SD=1.17), with 'satisfied with the English courses' (M=5.2, SD=1.14), 'satisfied with my English progress' (M=5.1, SD=1.01), 'felt encouraged by school brothers and sisters' (M=4.7, SD=1.43) and 'I feel hope from the Taiwanese role models in international news' (M=4.5, SD=.91). The most improved 2 persons' final feedback demonstrated the key factors behind their success. Participant 88 described her contrast of initial problems and final progress:

I think I am inspired by teachers in my English class. I found out my problem was in sports reading, but after I found out what I really want to learn is to describe my sports and my achievements, I improved to 89 in the final. For example, I was happy to learn "gold, silver, bronze medals" in Asian Games in Jakarta and World Championships in different countries. I am satisfied to learn to say, "I obtained the Tokyo Olympics ticket in taekwondo!" because I just got in.

Participant 88 increased her confidence as a result and went on to win a bronze medal in the Tokyo Olympics.

Similarly, Participant 91 highlighted the transforming strategy of becoming 'coaches' in English rather than being a foreign learner of English to change the self-esteem and motivation:

I like how we become coaches in English class. I tried my best to learn to explain taekwondo as a sport and the scoring to fellow classmates. I did a demo in class on how to get one point, two points and three points called Ippon in Japanese for our teacher and classmates. I have become very confident to speak in English and I am not afraid to answer questions of Americans I see in the food court.

This participant evolved from a low achieving background and low confidence level in English to become one of the most verbally proficient students in her class. Echoing Chiu and Cowan (2010), athletes' increased motivation in English and speaking confidence by the instructional interventions to respond to their needs by reversing their role as low-achieving students to professional coaches in English. It maximizes their dominant kinesthetic intelligence from weaker verbal intelligence. Their confidence level and satisfaction level progressed at the end of the ARCS program.

Perceptions of Hybrid Modes of Learning

Regarding the second Research Question on hybrid and online modes effect, the majority preferred a) face-to-face instruction, b) hybrid instruction delivered to the lab, over c) utilizing online pairs on Cyberlinks platform and Line group (which is a text-messaging application used for each semester). Furthermore, the majority of participants preferred face-to-face teaching, and hybrid learning over strictly distance-learning. Technical disruptions were manageable easily when a whole class were in the same lab to connect with teachers.

Participant 88 responded, "I like everyone to be together with the teacher in one classroom the most. I like it face-to-face just like our training. During the middle weeks we were in the lab with nice headset and microphone, we could not see our teachers and some classmates because of Covid-19. During the last weeks, we were all separated online, not even in the lab. Sometimes we lost the video for several seconds, but it was all right most of the time when we went online, in the lab or in our room."

Participant 41 commented, "Online classes are great. I can eat my breakfast and drink my tea in my room in online class. I did pair work with my partner in Line, and enjoyed the dialogue after watching the video of the Scottish five-year-old ... It was weird to present it in Cyberlink, but fun for me..." The participant prefers distance online mode for high intrinsic motivation by interacting with partners and the teachers. It is, however, different for other participants like the Participant 92.

Participant 92 added, "We do training with coaches and other partners. We compete with people in front of judges and others. When we change to whole computer classroom in the lab with a teaching assistant, without our Teacher, it is very strange for me. It is different

from face-to-face. However, when the whole Taiwan needs to be online, I think everyone in one's own room is acceptable. If we can turn on camera to answer answers and interact with screen on, it would be perfect for me. If I can choose, I would choose face-to-face, but some need to be quarantined in hotel after overseas competitions. Of course, online and hybrid courses are necessary. I think our center did a great job in our safety and health protection and still keep the English courses going on..."

Participants expressed the notion that hybrid mode offered an innovative way in which students could see each other's facial expressions while they communicated, yet they preferred face-to-face in-class environment. With distance mode c), Participant 41 mentioned, student-student and teacher-student interactions were made possible, as online simulations by practicing with video dialogues. For remote and hybrid modes, teachers involved and interested students more by monitoring all groups online with fast-pace and smaller units of ARCS implementation.

Discussion

The study analyzes how ARCS positively impacted Olympians' Sports English confidence, yet with cognitive and pedagogical difficulties. Cognitively, the results of this research differ slightly from the ARCS study of Li et al. (2020) regarding the need of tailoring transitional bridge from motivating attention to low achievers' relevance and confidence. Unlike the previous studies (Powers et al., 2009; Tsai, 2001), the ARCS focus was not to simply provide attention and relevance through visual-audio schemata or verbal stimulus. It was derived and extended from foundations of athlete participants' upcoming Olympics competitions and integrate it into their English curriculum. Different from the cognitive theory and grammar-translation approach, English-Mandarin translation was crucial to help English kinesiology terminology beyond sentence structure. Bilingual language input started with English exposure of different pronunciation and accents, including Olympics sports news.

Additionally, Li et al. (2018) urge for effective ARCS instructional design to pedagogically and cognitively equip low-achievers to read English. Lower-achievers develop their self-confidence by engaging their talents in English tasks. Occasionally, high achievers may receive favored attention and affirmation from teachers who consider them more easily instructed. Thus, teachers need to equally praise low-achievers by pointing out how they exceed themselves in relevance, aiding their confidence and increasing their satisfaction through exercises in crafting an English acceptance speech in the scenario that they win a sporting event, which some successfully used in Tokyo Olympics.

Pedagogically, this paradigm shift echoing Cavanagh, Leeds, and Peters (2019) as well as Batsila and Shrestha (2022), requires curriculum change for participants' ESP oral communicative self-efficacy. Low-competent athletes are now English teachers and coaches of sports regulations and domain knowledge of kinesiology. Broken English mentality mentioned by Participant 41 is referred as 'athletes who spoke little English,' which could aid a shift to a sense of confidence and satisfaction. Weaving in intercultural differences and integrating role models of tennis player *Randy Lu* and golf player *Yanny Tseng* help

empower athletes' professional and cultural integration (Person et al. 2001). Removing long-term negative pressures and low self-esteem (Aguilar et al., 2021; Jolly, et al., 2020) is an important factor in psychological build-up beyond negative self-images and existing mainstream stereotypes ("Me, no English" in "poor academic performance").

A sense of fear should be replaced by a shared sense of community as Participant 21 mentioned in practicing media interview in advance (M=4.51), yet 'openly conversing with foreigners' (M=4.1). ARCS is effective in completing multi-faceted and significant English activities for lower proficiency learners. Similar to Gay's (2000) and Chiu's (2017, 2018) viewpoint, the key to transforming the English language competence is through a paradigm shift in considering how English instructors approach their students' communicative competence. Educators can build students' self-esteem in English by going beyond traditional language instruction and integrating ARCS through CRT.

Different in subject and similar to Covid-19 induced hybrid sports study (Varea et al., 2022), participants in this study preferred face-to-face over hybrid and distance modes of learning given CRT context. Affective rapport and trust relationships as foundation, prior to online and hybrid peer-to-peer support in mixed ability grouping. Given their cultural characteristics of high contact and low English proficiency level, it is a necessity to bridge communicative deficits (Yang, 2021). Digital teacher-oriented lectures were not effective, unless holistic and affective educational support was first developed with teachers and other peers (Jolly et al., 2020). Linguistically heterogeneous pairing and groupings needs seeing each other's facial expressions (high virtual physical contact). Furthermore, it is more of a challenge as occasionally students would switch off their video feeds or transactional delays.

Finally, English instructors face the challenge of career development to satisfy athletes' professional domain knowledge language needs, resulting in shifting from English as a Foreign Language to EMI orientations (Gosling & Yang, 2022; Yang, 2016). EMI requires both instructors and students' psychological and professional readiness and mentorships in a reverse way, as athletes take the role of English instructors' kinesiology coaches and instructors educate them the English ways to communicate kinesiological expressions. The transition lies in curriculum and mindset shift beyond traditional grammar-orientation English acquisition where instructors are the knowledge authority and athletes are passive learners. EMI curriculum design also revolutionizes the psychological factors of athletes in building up their psychological capital and positive perceived value of English (Hsu, 2023). From knowledge of kinesiology to demonstrating taekwondo to boxing, it takes additional efforts for teachers' further development and EMI transition training. In online environments, it takes more effort to build professional content to empower lower-achieving athletes' self-identity in English through distance learning. Hence, it is crucial for the teachers' teamwork in systematic coursework development and students' partnership to develop Sports English listening, speaking and communicative proficiency for a specific target context before the 2030 Bilingual Nation Policy is implemented. This way the CRT theoretical framework can ensure content-specific language outcome with teaching materials of suitable levels, content training, pedagogy and assessment in a sustainable pedagogical model to train our learners in the global village.

Conclusion

This research set out to explore the impact of non-English speaking Olympians' Sports English confidence and competence from an ARCS model in an EMI course to connect athletes' sports talent with lower-achieving English. Results were found to be positive for motivation, relevance and satisfaction by enhancement of intermediate level low-achieving students, yet confidence remains comparatively low due to negative self-image in English speaking based on lack of benchmark progress. In a hybrid ARCS approach, the challenges for EMI teachers remain in curriculum modification and lack of kinesiology-oriented knowledge and online teaching competence. In the study, learners required reverse role play in shifting pedagogical approaches to maximize their specialized sports outcome in awarding Olympics medals and English acceptance speeches, which helped Taiwan to shine during the Tokyo Olympics (Yang, 2021).

However, improved confidence and satisfaction were more challenging goals because English conversations may lead to a sense of failure coupled with difficulties in sports terminology and vocabulary (Gosling & Yang, 2022; Chiu & Yakovleva, 2019). Hence, partner-supported, gradual bilingual transitional development learning strategies are advised to ensure applying English speaking to be implemented at a manageable performance level (Keller, 2020).

The limitation of this study is that it featured a small, mixed-gender sample of 92 athletes in Taiwan and could not be generalized for the entire non-English native Asian athlete students' population. In order to successfully implement the CRT approach, future researchers are recommended to fully immerse the ARCS model in a face-to-face environment first to build up effective rapport to better tailor for their cultural backgrounds. Further acquisition of English and evaluation of hybrid learning progress in ESP will lead to a breakthrough in their confidence as well as their English communicative competence in preparation for optimal global competitions and international participation beyond self-esteem.

** Acknowledgements to all athletes for their oral consent. Special thanks extended to Government-Academia Project leadership of Professor Richard Lin, and Associate Professor, Dean of International and Cross-Strait Cooperation, Dr. Janet I-Jane Weng as well as Emritus Professor John Cowan's editorial support. No conflict of interest is involved in the study.

References

- Aguilar, G., Grau, M. P., Vall-Llovera, C., & Siso, X. R. (2021). 'I was always made fun of for being fat': First-hand accounts of bullying in children's football. *Physical Education and Sports Pedagogy*, 26(6), 549-561.
- Batsila, M. & Shrestha, P. N. (2022). Business English Needs and Secondary Vocational Business English: The Case of Greek Workplaces. *Business and Communication English Quarterly*, 85(3), 247-278.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Calderón, A., Scanlon, D., MacPhail, A., & Moody, B. (2021). An integrated blended learning approach for physical education teacher education programmes; teacher educators' and pre-service teachers' experiences. *Physical Education and Sports Pedagogy*, 26 (6), 562-577.
- Cavanagh T. M., Leeds C., & Peters J. M. (2019). Increasing oral communication self-efficacy improves oral communication and general academic performance. *Business and Professional Communication Quarterly*, 82(4), 440-457. <https://doi.org/10.1177/2329490619853242>
- Chiu, J. & Cowan, J. (2010). Dealing with affective needs in E-learning: Contrasting two cases, in two cultures. In B. Olaniran (Ed.), *Cases on Successful E-Learning Practices in the Developed and Developing World: Methods for the Global Information Economy*, (p. 42-57). Hershey PA: IGI Global.
- Chiu, J., & Yakovleva, E. (2019). Using Culturally Relevant Theory to Foster Athletes' Multiple Intelligences in English learning Motivation and Confidence. *Language and International Studies*, 21, 69-95. <https://doi.org/10.3966/181147172019060021004>
- Chiu, Y. C. (2018). Assessing strengths and weaknesses of EFL Learners' Intercultural Communication Sensitivity in Journalistic English Course. In Lin, W. C., J. I. J. Weng, & R. Godwin-Jones, (eds.) *Internationalizing English Language Education in Globalized Taiwan*, p. 39-64. Taipei: Tunghua Publisher.
- Chiu, Y. C. (2017). Flipping silence to develop Taiwanese EFL students' critical thinking? *Asia Journal of Applied Linguistics*, 4 (1), 89-101.
- Chiu, Y. C. (2015). Enhancing indigenous Taiwanese children's cultural attitudes and cultural knowledge in English by Culturally Responsive Pedagogy. *Asian Journal of Applied Linguistics*, 2(2), 102-114.
- Chou, B. (2021). What Tokyo Olympics Means to Taiwan. *The News Lens*, Aug 12, 2021. Retrieved on Sep 2, 2021, from <https://international.thenewslens.com/article/154977>
- Flowerdew L. (2013). Needs analysis and curriculum development in ESP. In B. Paltridge & Starfield S. (Eds.), *The Handbook of English for Specific Purposes* (pp. 325-346). Boston: Wiley-Blackwell.
- Gardner, H. (2011). *Intelligence reframed: Multiple intelligences for the 21st century*. New York: Basic Books.
- Gay, G. (2000). *Culturally responsive teaching: Theory, research and practice*. New York, NY: Teachers College Press.

- Gay, G. (2010). *Culturally responsive teaching: Theory, research and practice 2nd edition*. London: Teachers College Press.
- General English Proficiency Test (2016). Speaking rating rubrics. Retrieved Sep 25th 2021 from https://www.lttc.ntu.edu.tw/E_LTTC/E_GEPT/elementary.htm
- Gosling, M. & Yang, W. (2022) Introducing Internationalisation at Home to promote students' learning satisfaction under CLIL (Content and Language Integrated Learning) approach in Taiwan higher education. *Learning and Teaching*, 15(1), 46-66. <https://doi.org/10.3167/latiss.2022.150104>
- Hellekjær G. O., & Fairway T. (2015). The mismatch between the unmet need for and supply of occupational English skills: An investigation of higher educated government staff in Norway. *Higher Education*, 70, 1033-1050. <https://doi.org/10.1007/s10734-015-9882-x>
- Hsu, L. (2023). Structural relationship of EFL learners' psychological needs and capital, and their willingness to take EMI courses: perceived value of English as a moderator. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2023.2173210>
- Jolly, S., Cooper, J. & Chepyator-Thomson, J. (2020). An Examination of Culturally Responsive Programming for Black Student-Athletes' Holistic Development at Division I Historically White Institutions (HWIs). *Journal of Issues in Intercollegiate Athletics*, Fall 2020 Special Issue, 73-90.
- Keller, J. M. (2020). The use of the ARCS model of motivation in teacher training. In K.E. Shaw (Ed.), *Aspects of educational technology volume XVII: Staff development and career updating*. London: Kogan Page.
- Keller, J. M., & Kopp, T. (1987). Application of the ARCS model of motivational design. In C. M. Reigeluth (Ed.), *Instructional theories in action: Lessons illustrating selected theories and models*. Hillsdale, NJ: Lawrence Erlbaum.
- Ladson-Billings, G. (2005) The evolving role of critical race theory in educational scholarship. *Race Ethnicity and Education*, 8(1), 115-119. <https://doi.org/10.1080/1361332052000341024>
- Li, G. C., Yang, H.H. & Zhang, J. (2020). An Action Research on Applying the ARCS Model and Stratified Teaching in an English Reading Class in a Chinese Elementary School. *International Journal of Applied Linguistics and Translation*, 6 (1), 12-19.
- Li, C. L, Chen, Y. H. & Li, H. Y. (2018). Technical College Students' ARCS Learning Motivation on Hospitality English Vocabulary. *International Journal of Human Resource Studies*, 8(1),189-207.
- Li, K. & Keller, J. M. (2018). Use of the ARCS model in education: A literature review. *Computers & Education*, 122, 54-62.
- Lin, W. C. & Yang, S. C. (2015). Exploring effects of online culturally responsive pedagogy: Collaborative learning between college tutors and indigenous high school students. *Journal of Research in Education Science*. 60(4), 223-253.
- Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal*, 11(4), 351-362.

- Person, D. R., Benson-Quaziana, M., & Rogers, A, Marie. (2001). Female Student Athletes and Student Athletes of Color. *New Directions for Student Services*, 93, 55-64. <https://doi.org/10.1002/ss.5>
- Powers, T. A., Koestner, R., Lacaille, N., Kwan, L., & Zuroff, D. (2009). Self-criticism, motivation, and goal progress of athletes and musicians: A prospective study. *Personality and Individual Differences*, 47(4), 279-283.
- Roberts, J. L., & Inman, T. F. (2015). *Strategies for differentiating instruction: Best practices for the classroom* (Third Edition). London: Prufrock Press.
- Taylor, S. V., & Sobel, D. M. (2011). *Culturally responsive pedagogy: Teaching like our students' lives matter*. UK: Emerald Books.
- Tsai, Y. (2001). Exploring the Feasibility of Integrating Culture Learning into Taiwan's Foreign Language Education. *Studies in International Culture*, 5(1), 135-157.
- Varea, V., González-Calvo, C. & A. García-Monge, A. (2022). Exploring the changes of physical education in the age of Covid-19. *Physical Education and Sport Pedagogy*, 27(1), 32-42. <https://doi.org/10.1080/17408989.2020.1861233>
- Welle, D. (2021, August 6). 'Chinese Taipei': Taiwan's Olympic success draws attention to team name. *Taiwan News*, <https://www.taiwannews.com.tw/en/news/4265749>
- Weng, J., Murray, J., & Lin, W. C. (2022). A New Approach in Motivating Taiwanese Student-Athletes' English Learning. *Language and International Studies*, 27, 39-62.
- Yang, S. Y. (2021, August 12). From zero-English to English interview, who let Tai and Guo improve their English. *Business Weekly*, 1761. Retrieved from https://www.businessweekly.com.tw/magazine/Article_mag_page.aspx?id=7004271
- Yang, W. (2016). ESP vs. CLIL: A coin of two sides or a continuum of two extremes. *ESP Today: Journal of English for Specific Purposes at Tertiary Level*, 4(1), 43-68.
- Yi, F., Tsai, C., & Yang, C. (2015). The psychological skill training impacts on sports performance. *Journal of Leisure and Sports Management*, 1, 8-19.

Appendix 1
Criteria GEPT Elementary-Level Speaking Test Rating Scale (GEPT, 2016)

Band Score	Description
5	Pronunciation and intonation correct and natural. Response is fluent, and communication unhindered.
4	Pronunciation and intonation generally correct and natural. Although there are errors, these do not impede comprehension. Response can still be considered fluent, and communication is unhindered.
3	Some errors in pronunciation and intonation, but still intelligible. Examinee speaks slowly and sometimes hesitates, but can still communicate.
2	Numerous errors in pronunciation and intonation affect comprehension. Slow speech and frequent hesitation impede communication.
1	Many errors in pronunciation and intonation; many inappropriate hesitations; responses difficult to understand.
0	Unanswered or irrelevant response.
Band Score	Description
5	Content answers the question; examinee has a generally good command of basic grammar and vocabulary.
4	Content generally answers the question; basic grammar and vocabulary generally correct, but restrained.
3	Much of the content difficult to comprehend; frequent grammatical errors and limited vocabulary hinder expression.
2	Content difficult to understand; many grammatical errors; speaks largely in phrases; many inappropriate hesitations; insufficient vocabulary; communication takes a lot of effort.
1	Almost no sentence structure; vocabulary severely lacking; expression difficult.
0	Unanswered or irrelevant response.

Appendix 2

Semi-structured Interview (Conducting in Bilingual Version)

1. (Attention) How did you think of your English learning motivation in the class? What particularly motivate you in willingness to keep learning English?
2. (Relevance) How do you see yourself and the English learning this semester? Which part of the English materials do you think is related to your sports training and overseas English in the future?
3. (Confidence) Overall, do you think that you are more confident in English? Did you think your English was good in speaking and written test? How do you see yourself now?
4. (Satisfaction) How are you satisfied with the English learning English this semester? Why is it so?
5. (online modes) How do you think of different ways of English class: A) everyone in face-to-face environment, B) the computer lab conference with teaching Assistant, and C) everyone in distance ? Have you noticed any technological issue (ex: interactions, equipment as well as wifi connection)? Which way do you prefer if you can choose for the best way in the future?