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Research in kinesiology suggests college students' sedentary behavior and habits increase the risk of premature chronic disease. Physical literacy has been proposed as a possible solution to increase physical activity participation. Participants in this study were community college students (n = 13) enrolled in a required kinesiology wellness and activity course. This mixed methods study used a modified perceived physical literacy instrument (PPLI) to examine students' perceptions of their physical literacy at the start and end of the course. Dependent samples t-tests revealed significant changes in the participants' perceived physical literacy for the survey data. Students' perception of physical literacy improved significantly from the pre to post-PPLI, indicating the physical literacy focused curriculum effectively progressed their perceived physical literacy. Individual results from the PPLI showed significant changes with one of the four attributes of physical literacy, motivation, at $p < .0125$ when correcting for Type I errors with a large effect size. Additional data were collected from course assignments and interviews, allowing participants to express their perceptions about physical literacy. Focus group and individual interviews and assignment analysis revealed five themes: *I feel confident, I got better because I was helped, I am motivated, I move better,* and *I learned new information.* Participants indicated progression in the perception of their physical literacy. Many stated a positive change in their motor competence and knowledge and understanding of the benefits of a physically active lifestyle. The findings demonstrate it may be possible to use this curriculum in other courses at the community college to help progress physical literacy.

COMMUNITY COLLEGE STUDENTS' PERCEPTION OF PHYSICAL LITERACY DURING A WELLNESS AND ACTIVITY CLASS

by

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APPROVAL PAGE

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CHAPTER I: PROJECT OVERVIEW

Physical literacy (PL) is a construct with increasing importance since the United States Physical Education (PE) profession adopted the concept in 2013 (Lounsbery & McKenzie, 2015; National Association for Sport and Physical Education [NASPE], 2016). PL provides a holistic approach to changing participation in physical activity (PA) (Holler et al., 2019). The college years are critical for developing PA habits that influence future involvement (Ferrara, 2009; West et al., 2020). Inactivity is the fourth leading cause of premature death worldwide (Kohl et al., 2012). People function better when they move regularly, yet the typical American lifestyle lacks adequate PA, with individuals spending 7.7 hours daily in sedentary behavior (Centers for Disease Control and Prevention [CDC], 2018). College students are not immune to inactive lifestyles, mirroring societal trends by sitting long hours in class and studying, leaving limited free time to incorporate PA into their life. Moulin and Irwin (2017) found that college students average eleven hours of sedentary behavior daily.

Resources that encourage greater activity are critical for increasing PA. This research intentionally focused on a PL instructional curriculum (PLIC) to change a student's physical literacy perception (PLP) to increase lifetime PA participation (Australian Sports Commission [ASC], 2019b; Whitehead, 2010; Whitehead et al., 2018). Offering college wellness and activity courses with a PLIC may reduce sedentary lifestyle behaviors.

Background Rationale

Physical literacy may increase PA participation. Numerous health benefits are directly associated with regular PA participation, including healthier body composition, increased bone strength, improved cardiovascular fitness (Jansen & Leblanc, 2010; Kohl et al., 2012), and enhanced mental and cognitive health (Biddle & Asare, 2011; Eime et al., 2013; Guthold et al.,

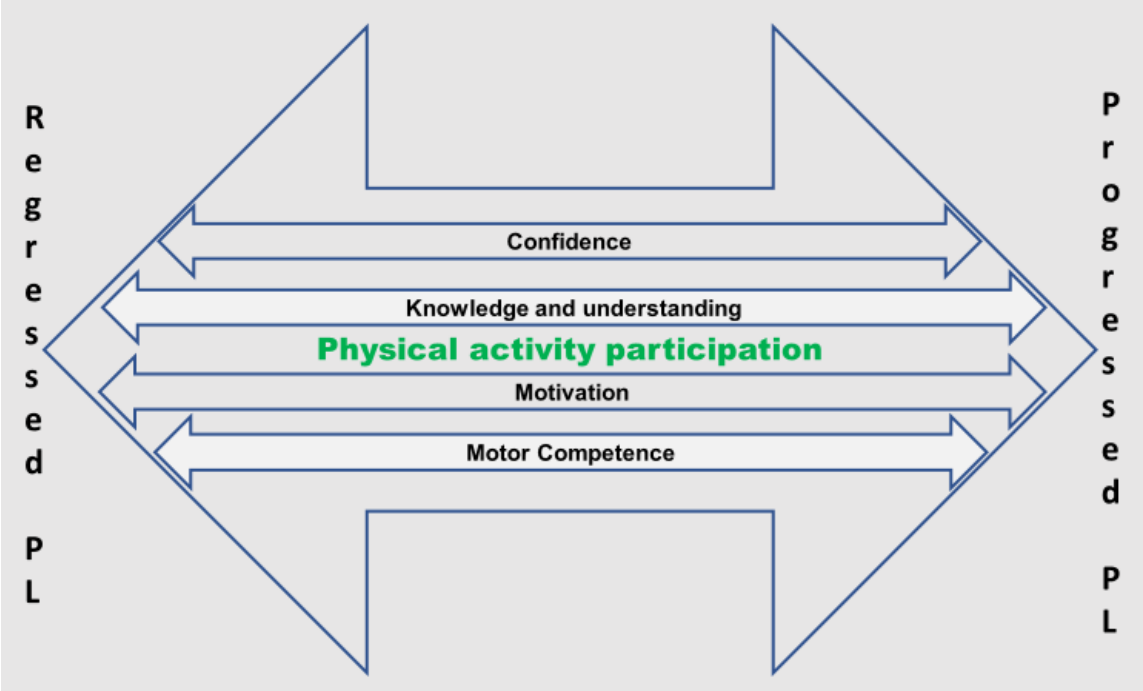
2018; Hamer et al., 2008). Promoting PA to improve health is used worldwide (Nowak et al., 2019). Multiple factors increase or inhibit PA, such as peers, parents, social media, and role models (Abdelghaffar et al., 2019; Humbert et al., 2008; Martins et al., 2015), including the transition to college and the subsequent reduction of regular PA which raises the risk of chronic diseases (Ferrara, 2009). Identifying and evaluating the obstacles and enablers of PA during a time of changing habits and lifestyle provides an opportunity to establish PA habits and positive associations with movement for a lifetime. Using PL promotion has been shown to increase PA participation. PL is an antecedent of PA participation and intelligence for movement (Edwards et al., 2017; Sum et al., 2018).

Physical Literacy

PL is a multidimensional construct associated with one's level of physical activity. For the study, the researcher defined PL as knowing the "why" and having the "how" to participate in safe, persistent PA. PL exists on a continuum (Tremblay et al., 2018) (see Figure 1), ranging from very regressed to optimally progressed. Individuals with progressed PL are more likely to remain active for life (Edwards et al., 2017; Sum et al., 2018; Whitehead, 2013). Worldwide, PL characterizations have one common theme: the ability to move with competence or consistency (Bailey, 2020). At present, there is no one accepted definition for PL, causing confusion among nations about how they should view and assess PL (ASC, 2019b; Aspen Institute, 2015a, 2015b; Hastie, 2017; International Physical Literacy Association [IPLA], 2017; Lounsbery & McKenzie, 2015; Macdonald & Enright, 2013; Whitehead, 2013). The lack of one PL definition is due to acknowledging the impact of each country's culture, history, and preferences. The lack of consensus has created multiple meanings (Young, O'Connor, & Alfrey, 2020). The ASC (2019b) definition states PL as the behaviors that create active lives through

progressing one's ability, confidence, and motivation to move while increasing the knowledge of the wellness benefits of an active lifestyle. This definition closely aligns with the researcher's movement philosophy and the PLIC used for this research. Progressing PL means developing and furthering one's current PL level. According to Rodgers (1989), attributes define a concept, and PL has four attributes (as cited in Young, O'Connor, & Alfrey, 2020). The attributes are confidence, knowledge, and understanding of the benefits of a physically active lifestyle, motivation, and motor competence (IPLA, 2017; Whitehead, 2013).

Figure 1. The Physical Literacy Continuum



The idea of taking a PL journey to reach optimal wellness is a relatively recent paradigm shift (Young, O'Connor, & Alfrey, 2020). A PL journey is an individual experience; it progresses and regresses throughout the lifespan due to the experiences and circumstances of each person (ASC, 2019a). Connecting PA, exercise, and the love of movement as daily behaviors for a lifetime are critical to sustaining PA involvement through every stage of life

(Jurbala, 2015; Pringle, 2010). Longmuir and Tremblay (2016) noted that everyone has PL at one level as it is an individual's unique PA experiences through play, school, PE, and leisure time choices.

Proactively maintaining a health-enhancing PA level benefits a person's wellness and shows progressed PL. The four interrelated attributes of PL influence each other. Individuals with significant progression in one component can simultaneously experience regression in another, inhibiting consistent PA participation. The knowledge and resources to achieve, maintain, and progressively develop PL appropriately requires continual challenge, learning, motivation, and persistence. However, not everyone understands PA's benefits and possesses the motivation or motor competence to move to achieve the positive consequences of an active lifestyle.

Confidence and Motivation

The development of PL is strongly influenced by previous experiences (Almond, 2013). PL incorporates the concepts related to the benefits of a physically active lifestyle for life, including moving with confidence and competence in various settings (Whitehead, 2010). Wang et al. (2020) stated that motor ability, confidence, and motivation significantly influence sustainable PA participation. Motivation and confidence are essential attributes to continue participating in lifetime PA (Edwards et al., 2017; Whitehead, 2010). Increasing confidence in students' movement ability through motivation and persistence permits them to attempt new challenges and persist to completion, thus enhancing their confidence and competence for movement (Joseph et al., 2014). Physically active individuals value the benefits and possess the determination to dedicate time to maintaining PA. Holler et al. (2019) found that PA improves an individual's self-confidence. PE is one of the primary places for students to develop their PL

(Durden-Myers et al., 2018; Edwards et al., 2017; Wainwright et al., 2020). Unfortunately, many students lack physical competence, motivation, and confidence to maintain a health-enhancing activity level due to their past PE and athletic experiences (Martins et al., 2015). More movement experiences due to confidence and motivation can increase motor competence, and students with higher levels of motor competence are more likely to participate in PA consistently than those with lower motor competence (Rudd, Pesce, et al., 2020; Stodden et al., 2009; Stodden et al., 2013).

Motor Competence

Adolescents who lack the underlying physical capabilities and fundamental movement skills are less likely to participate in health-enhancing physical activity levels (Cattuzzo et al., 2016; Lester et al., 2017) for life. Stodden et al. (2008) define motor competence as the proficiency of fundamental motor skills like running, galloping, sliding, and object control (Stodden et al., 2008). Addressing students' motor competence levels is integral to assisting students with poor movement skills to improve because motor competence levels correlate with PA levels (Abdelghaffar et al., 2019; Barnett et al., 2008; Cattuzzo et al., 2016; Humbert et al., 2008; Lubans et al., 2010; Martins et al., 2015; Stodden et al., 2009).

A mastery learning environment, where students seek incremental and individual improvement, versus performance learning, where students achieve an outcome, provides the best opportunity for students to meet instructional demands, regardless of their motor competence or development level (Goodway et al., 2010; Gu et al., 2017; Gu et al., 2019). A mastery learning environment is created when students achieve a sense of individual success, are supported by their teacher and peers, and develop positive motor ability perceptions (Gu & Solmon, 2016). While most research on mastery learning environments focuses on young

children, there is no reason to expect community college students to respond differently. The purpose of almost every required exercise during the lab considers developing the students' physical literacy journey. Achieving motor competence in various movement experiences promotes enjoyment and lifetime participation (Rudd, Pesce, et al., 2020). Emphasizing positive learning environments and addressing the obstacles limiting or inhibiting PE and PA participation, like performance outcomes for lower competent students, celebrating the positive changes from consistent training can increase confidence and motivation while improving one's motor competence (Wang et al., 2020).

Traditionally, PE has taught and assessed motor skills, performance, and fitness with the measurements focusing on summative such as skill and fitness testing rather than formative evaluations (Lundvall, 2015; Robinson & Randall, 2017). However, measuring one component while ignoring the interrelated nature of the other attributes provides only an incomplete understanding of PL if mastery is an outcome (Barnett et al., 2018; Corbin, 2016). Motor competence measured by performance and proficiency is frequently the attribute of choice due to the objective nature of the assessment (Edwards et al., 2018; Robinson & Randall, 2017; Robinson et al., 2015). The perceived physical literacy instrument (PPLI) created in 2016 developed a measurement for PLP (Sum et al., 2016).

Assessing Physical Literacy

There are challenges with assessing PL related to PL's complex nature of the process rather than a specific outcome (Jurbala, 2015). The PPLI measured the perceived PL of Hong Kong secondary school students (Sum et al., 2018). Ma et al. (2020) and Sum et al. (2018) used a simplified Chinese version of the PPLI with college students as an individual assessment of

perceived PL for both studies. Using the PPLI and others like it, students can describe their PLP to help identify their initial perception and then show the extent of their PLP changes.

PL assessment requires holistic measures to provide a complete picture of PL and data used to help one progress on the PL continuum. Without worldwide consensus for a PL definition and curriculum development, creating assessments presents challenges (McCaffrey & Singleton, 2013). Theoretical difficulties arise when mastery learning is the outcome, and summative measurements assess one attribute of PL, like making a free throw in basketball (Lundvall, 2015; Robinson & Randall, 2017; Whitehead, 2010). PL multidimensional construct includes physical, psychological, and behavioral elements that create challenges when focusing on one dimension when assessing with an instrument designed for another purpose (Giblin et al., 2014). One of the critical considerations is the congruence between the assessment tool and the definition used to authentically assess PL (Barnett et al., 2018; Edwards et al., 2018; Young, O'Connor, & Alfrey, 2020). Giblin et al. (2014) state that no assessments exist to measure motor competence within physical literacy due to the complexity of motor competence.

Previously, most assessments of PL focused on one element of PL individually (Edwards et al., 2018). Attempting to evaluate only a single component without considering the interrelatedness of the attributes cannot accurately measure PL (Edwards et al., 2018); if the assessed attribute progressed while another regressed, the net PL progress might be negligible. Several studies have measured high school and college students' perceived PL as a single event evaluation (Ma et al., 2020; Sum et al., 2018; Wang et al., 2020). There are no specific guidelines for assessing a person's PL (Barnett et al., 2018; Giblin et al., 2014). When using restrictive and specifically defined assessments, the PL definition becomes more stringent and challenging because it limits what is acceptable to the PL definition and assessment structure

(Edwards et al., 2018). The unique PL journey experiences make specific assessments of individual PL attributes inappropriate due to the different starting points, learning rates, and individual differences. Therefore, objective measurement is unlikely to measure everyone's experiences in a meaningful manner (Edwards et al., 2018; Hay & Penney, 2013). The goal of the assessment tool should measure how one's PL influences daily physical activity (Edwards et al., 2018). Determining PL perspectives should connect the interrelated and multifaceted elements of the definition within a specific learning environment (Barnett et al., 2018; Edwards et al., 2018).

Purpose and Research Questions

PL is promoted worldwide as a concept to increase physical activity participation. PL research does not currently address how a student's perception of their PL journey changes when enrolled in a course that integrates the principles of PL. The study's purpose was to investigate community college students' perception of PL during a wellness and activity class. PL is defined as the knowledge, behaviors, and skill to provide the motivation and confidence to maintain an active life (ASC, 2019b).

Aims/Research Questions

Research Question 1: What are the community college students' perceptions of Physical Literacy during a wellness and activity course?

Research Question 2: Does a community college student's perceived motor competence change during a physical literacy-focused wellness and activity course?

Methods

A wellness and activity course included lectures and laboratory sessions to promote PL. The lecture portion of the class explicitly promoted PL, wellness behaviors, and knowledge

about the benefits of PA participation (Appendix A). The laboratory sessions used purposeful PA (Appendix B) that encouraged quality movements through biomotor abilities (Sercan & Serkan, 2019) and the planes of movement to facilitate progressing confidence, motivation, and motor competence while connecting lecture content topics. At the end of each class, the researcher wrote observations about the content covered and students' responses in the researcher's journal. During the fourth class session and the first exercise check-in, the researcher recorded the student order of exercises observed and jotted notes about technical hints, encouragement, suggestions, questions asked, and movement challenges presented to each student.

Design

During a one-credit-hour wellness and activity course, surveys, interviews, and document analysis informed an exploratory mixed methods research design (Creswell, 2015). A liaison was used to help ensure the researcher, who was also the instructor, was unaware of which students had agreed to participate in the study. The researcher maintained anonymous survey responses, and the liaison impartially interviewed participants to help blind him until after the course ended and grades were submitted. All data collection except the interviews were part of the required course assignments completed by all students. Only the work from students who consented was used in data analysis.

Participants and Setting

The community college students were recruited from a one-credit, 48-hour, required wellness and activity course from a United States urban southern community college. Nineteen students enrolled in the class, with n=13 consenting to participate, signed a consent form. The researcher did not know the status of participation until grades were released. The age range for participants was from 14 to 27 years old. Eight participants were college-aged, while five were

high school students who attended the on-campus high school. The liaison met with all students and read the Institutional Review Board recruitment script (Appendix H). The adult students signed the consent form (Appendices I and J). Students receiving parental consent received a Qualtrics® survey to choose to participate or not (Appendix K).

Physical Literacy Focused Curriculum

The study was an in-person course meeting twice weekly with 40 minutes of lecture and 40 minutes of laboratory (physical activity) on both days. The lecture portion of the class focused on wellness concepts with a PL emphasis (Appendix A). Many wellness topics directly related to the knowledge and understanding of lifetime physical activity participation benefits, while other topics were more challenging to connect. Students were required to complete twenty-eight training sessions during the course. Students learned the movement prep (Appendix L) during the first day of class and completed it every laboratory session. The movement prep focused on movements utilizing biomotor abilities (Sercan & Serkan, 2019) and planes of movement. The biomotor abilities emphasized throughout the class were speed, strength, flexibility, coordination, endurance, and balance. The activity (Appendix B) required during the laboratory session emphasized movement through three resistance training cycles to improve students' movement ability (Stodden et al., 2008) and PL. Each training cycle utilized different training parameters and required exercises. The course's training design includes assessments to guide students when choosing which required exercises to choose for safety and success. The researcher actively engaged each student during daily exercise check-in to create significant interactions (Rubin & Rubin, 2012).

Positionality

The researcher has taught this course for the past seven years of his 30 years of teaching kinesiology. He taught eight years of junior high health and physical education before starting his 22 years of teaching higher education kinesiology. He is a certified strength and conditioning coach (CSCS) through the National Strength and Conditioning Association, FMS Level I and Fundamental Capacity Screen (FCS) certified through Functional Movement Systems, USATF Level I and Level II—sprints, hurdles, and relay certified. His competitive experience and coaching background focusing on individual performance improvements and celebrating personal successes influence his movement philosophy. The researcher's movement philosophy is 'own your movement,' meaning students can self-regulate and choose to participate in a variety of activities. The researcher worked to reduce his bias, motivation, and interest in the results through anonymous surveys and the use of an impartial interviewer, a critical friend. Researcher bias addressed by prolonged engagement, persistent observation, and data triangulation were used to increase credibility (Lincoln & Guba, 1985).

Data Collection

The modified-PPLI was used to assess students' perceived PL (Appendix C) during the first and final weeks of the 15-week semester course. The pre-post survey used a modified PPLI to evaluate students' perception of their PL. The post-PPLI included open-ended questions (Appendix D) in which students could share more information about each statement. Only required and graded course activities were used for data collection. During the third month of the study, the liaison interviewed two focus groups. Three individual interviews were conducted after the last day of classes. The third paragraph of the required essay provided student responses to their PLP. The assignment was collected during the 12th week of the study.

Measures

The pre-post surveys included a modified version of the PPLI (Ma et al., 2020; Sum et al., 2018), with nine statements scored on a 5-point Likert scale. The PPLI survey was completed anonymously online using Qualtrics®. A required written assignment provided additional data. The liaison conducted two voluntary focus groups and three individual interviews.

Pre-Post Surveys

The PPLI measured perceived PL (Ma et al., 2020; Sum et al., 2018). The PPLI was modified from its original iteration to adjust for British and American English differences. The PPLI's holistic approach incorporated the four attributes of PL, confidence, motivation, knowledge and understanding of the benefits of PA participation and motor competence (IPLA, 2017; Whitehead, 2013). The modified-PPLI consisted of nine statements using a 5-point Likert scale. The scale ranged from *strongly agree* (1) to *strongly disagree* (5). The post-PPLI contained the same nine statements, and Likert scaled and included open-ended questions following each statement (Appendix D).

Required Course Assignments

Participants and non-participants completed the required assignments for grading purposes. Not every course assignment was assessed for PL perception.

The Required Essay

Throughout the progression of the course, students collected data from fitness and movement assessments (Appendix E) and several assignments to self-evaluate their current level of wellness. Students specifically addressed their PLP in the essay's third paragraph. Students wrote about the attributes of PL and how the course affected them with the prompt, "how has your PL changed since class started?"

Focus Group and Individual Interviews

The interviews were conducted by a liaison knowledgeable about qualitative research—the liaison directed and recorded each interview using WebEx video conferencing. After the interview, she transcribed the responses using WebEx. There were two focus group interview sessions. The first group consisted of six adult students, and the second group had four high school-aged students. Three individual interviews were conducted. The semi-structured interview allowed students to share their perspectives on PL, PA, and the class's activities (Rubin & Rubin, 2012). The interviews consisted of primary, probing research and follow-up questions (Rubin & Rubin, 2012). See Appendices F and G for Focus group and Individual interview questions.

Data Analyses

Survey analysis and qualitative data analysis were part of this mixed methods research. The survey data came from the PPLI survey. The data came from graded course assignments and voluntary interview participation. Students completed the PPLI surveys by scanning a QR code during the class's lecture portion or using the code from a class email. Statistical analysis of the pre- and post-PPLI results occurred. The attributes of PL were analyzed individually. The researcher identified the interrelated nature of the statements for each attribute of PL. The researcher selected the PPLI questions to individually analyze the four attributes of PL. The attribute of confidence was measured using PPLI questions 1, 2, 6, and 9. Knowledge and understanding were assessed through questions 1, 4, 5, 7, 8, and 9. Motivation used questions 2, 3, 5, 7, and 8 for statistical analyses. Motor competence used students' responses for questions 1, 4, 5, 6, and 8. Those data were analyzed using SPSS (25). The post-PPLI included open-ended questions (Appendix D) to allow students to describe their experiences thoroughly.

Survey Analysis

Thirteen students completed the pre-and-post-PPLI survey containing nine items. Descriptive statistics were calculated using SPSS Statistics 25. Dependent samples *t*-tests were used to compare the pre-and-post-PPLI surveys. Hedges' correction was used to correct for effect size (VanHoudnos & Greenhouse, 2016). Cronbach's Alpha was used to analyze internal consistency, suggesting reliability for the items based on the participants' responses (George & Mallery, 2003). A paired-samples *t*-test was calculated to compare the mean of the four attributes of PL, confidence, knowledge and understanding, motivation, and motor competence from the pre-PPLI to the post-PPLI. The Bonferroni Correction was implemented for the attribute analysis to control for Type I errors. Starting at $p \leq .05$, the significance level gets divided by the number of tests, and the adjusted alpha is $\alpha_{new} = \alpha_{original} / n.$ $\alpha_{original}$ (Simes, 1986). The *p*-value was corrected to less than .0125 to maintain 95% confidence ($p < .0125$) for analyzing the individual PL attributes.

Qualitative Analysis

Multiple data sources, including a researcher's journal, were used for data triangulation (Rubin & Rubin, 2012). The qualitative data analyses provided insights into students' perspectives, experiences, and course participation in the specific setting for the section of this course. Multiple data sources, including focus group and individual interview transcripts, essay responses, and the responses to the post-PPLI open-ended questions, allowed the students to share their experiences and PLP. The post-PPLI included nine open-ended questions related to the nine PPLI statements probing participants for more details than a Likert scale response.

The liaison interviewed the focus group and the individual participants, providing impartiality to the study. Peer debriefing between the liaison and researcher occurred throughout

the course, and data collection to reduce researcher bias (Lincoln & Guba, 1985). We discussed and reviewed participants' responses anonymously, and she requested details about specific course expectations and PL definition and attributes. The liaison reviewed the initial transcripts and provided copies to the interview participants for member checking (Patton, 2002). The other data sources required student assignments.

After data collection was complete, we read each document several times using the whole-part analysis method to understand the meaning of the central concepts in the data before beginning the coding process. The researcher and the liaison reviewed hard copies of the interviews, essay answers, and open-ended responses to the post-PPLI to identify initial codes. Once the coding began, we used open and descriptive coding, and several codes were drawn from the data. We coded the interview transcripts and open-ended post-PPLI responses and conducted document analysis to draw on the essential elements of the students' stories (Emerson et al., 2019). This ongoing process focused on developing a consensus in the coding for agreement for the responses. After creating the open coding and sensitizing concepts, we reassembled the data using axial coding extracting five themes (Dyson, 2020).

Results

The survey results used descriptive statistics analyzed through SPSS. The five themes were drawn from the individual and focus interview transcripts and assignment data analyses.

Survey

The results of the *t*-test analysis showed the mean on the pre-PPLI survey was 17.92 (*SD* = 6.317), and the mean on the post-PPLI survey was 14.54 (*SD* = 4.612). A statistically significant decrease from pre to post-PPLI was found ($t(12) = 3.058$, $p = .01$ indicating a positive change. Using Hedges' correction, the corrected effect size for the pre to post-PPLI was 0.794

(Hedges' g = 0.794; 95% CI [0.184-1.380]), indicating a medium to large effect. Cronbach's Alpha for the pre was α = .903. Cronbach's Alpha for the post was α = .879. Ma et al. (2020) recorded a Cronbach's Alpha range from 0.79 to 0.83.

Analyzing the individual attributes from the pre-and-post-PPLI surveys demonstrated mixed results (Table 1). Results of *t-test* analysis of pre- to post-PPLI motivation showed a statistically significant decrease ($t(12) = 3.090$, p = .009). Knowledge and understanding and motor competence were not significant but trending lower. Hedges' Correction showed medium to large effects for all measures. There was good to excellent internal consistency determined through Cronbach's Alpha.

Table 1. Pre- to Post-PPLI PL Attribute Comparisons

Attribute	Pre-PPLI PL M ± SD	Post-PPLI PL M ± SD	*t*	*p*	*g*	*a*
Confidence	8.23 ± 3.14	6.77 ± 2.09	2.456	.03	.638*	.863*
Knowledge and Understanding	12.77 ± 4.60	10.46 ± 3.10	2.871	.014	.745*	.909**
Motivation	9.54 ± 3.31	7.69 ± 2.29	3.090	.009*	.802**	.873*
Motor Competence	10.77 ± 4.23	9.15 ± 2.97	2.179	.019	.706*	.925**

Note. $df = 12$, $n = 13$, $^{*}p < .0125$, Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor. * medium $g \geq 0.5$ to **large $g \geq 0.8$ effect. Cronbach's Alpha indicated internal consistency, * good $0.9 > a \geq 0.8$, ** excellent $a \geq 0.9$.

Qualitative

The five themes are *I feel confident, I got better because I was helped, I am motivated, I move better,* and *I learned new information*.

I learned new information was a theme from the interviews, essay responses, and post-PPLI open-ended questions. Students reported learning from both the lecture and laboratory portions of the class. Students learned to monitor their health and wellness, the relationship between physical activity and better health, and plan future wellness choices. One student shared during an interview, "*I felt like I had really learned a lot from this class and like I took*

something beneficial away." A student said (my) "*knowledge and understanding improved significantly*." One of the PLIC goals is to connect knowledge, activity, and future consequences of a wellness lifestyle. Another student wrote,

> *I feel like I learned a lot about how important physical activity is, and I want to make that a part of my daily life—every day. I also feel like this class just benefited me in more ways than one. From everything that I learned in the course, I can evaluate my health and wellness change*.

I move better was another theme and addressed by research question two. The training expectations during the laboratory session specifically included increasing the students' ability to move. One student said, "*I like all the required exercises because I feel like they're all crucial to our routine and really good*." Many students affirmed positive changes to their movement ability. Throughout the class, students were reminded to consider how they moved at the start of the class compared to several times during the class. Students described the interrelated nature of PL in their comments. One participant noted, "*motor competence, I would say with my form and balance I feel a lot more, and it definitely has improved a lot so that they increased my confidence and motivation*."

Students said, "*I feel that I can move better, which makes me feel more confident*." Another student said, "*I felt like I had really learned a lot from this class and like I actually took something beneficial and meaningful away*."

I feel confident was a theme the participants identified. Students reported improving their abilities, recognizing the belief that they were improving. One participant was shocked by the changes stating (my) "*confidence has gone up more than I could have imagined a year ago*." Similarly, another noted their confidence changed due to their motor competence "*My*

confidence in working out has heightened due to learning the correct form during exercises." Some students' confidence improved, and it helped their motivation, too. However, not every student experienced confidence at the same level; a participant wrote in their essay, "*my confidence and physical competence improved slightly*." Another student wrote, "*I feel confident in how I look and how much my little body could move or lift."* Several students indicated a synergistic relationship between *feeling confident* and *increased motivation*.

I am motivated was referenced by study participants. One student summed it up with the statement, "*my motivation and confidence with myself to just flex and extend my body past my breaking point has been expanded because I have seen that I can push my body much more than that what I thought was conceivable*." Some students noticed a change. It caused other wellness behaviors to emerge as demonstrated by this participant's quote: "*my dedication and motivation have started to climb ever since the beginning of the semester so much that I am now changing the way I eat and my exercise habits*." Progressed PL includes a lifetime commitment to physical activity (ASC, 2019b; Whitehead, 2010, 2013). One student said they plan to continue their PA habits after the class ended with this statement, "*my motivation has increased a lot from the start of this class. I now have the motivation to go out and live a life with more movement*." Students recognizing the progress they achieved during class characterizes the PL journey.

I got better because I was helped was extracted as a theme from the analysis. Sometimes, the researcher's advice and encouragement were presented to challenge the student to lift heavier weights or attempt a different exercise. The training requirements for the PLIC allow students to experience success while introducing them to unique activities. One student shared this statement in their essay,

> *I would say the experience that I had in this class that was the most meaningful to me was when. Mr. Wied. was going and helping each and every one of us individually with the exercises that we needed help with, especially with the heavier weights, and just subtle tips that he was giving us to try and help us. I think that was really meaningful*.

Many students found the exercise check-in to provide helpful technique cues to improve their posture and performance; one student said, "*I felt really like I knew what I was doing after he was helping us, like helping us go through the exercise and everything else*." Lifetime PA participation is a critical element of PL (Whitehead, 2010). Students realized their learning could transfer to future PA participation; one student wrote, "*completing a set with ideal form in the school wellness center has allowed me to feel more comfortable performing exercises in my gym*." Another wrote with the "*help of the professor. I learned new exercises and techniques for future training programs*." Students chose the required exercises out of categories for each training cycle and were encouraged to vary their choices. Students recognized benefits from their exercise choices. This student liked one of the most challenging movements during class, "*I would say the one I benefited from the most was the Turkish get up. It involves all planes of movement, and it's a very simple exercise to do that doesn't require any kind of weight or specific equipment.*" Lastly, many cues and encouragement were consistently given to the students during class; one interview participant shared, "*Being able to move as he says move well, but move often kind of thing gets in your head*." Some participants recognized that their performance improved from participating in class.

Discussion

Physical literacy is promoted to increase physical activity participation globally (Holler et al., 2019). The pre- to post-PPLI results showed a statistically significant decrease at the end of

the semester, indicating that students' PLP progressed. The PLIC plan positively influenced most students' PLP. The four PL attributes were analyzed individually with mixed results. The PLIC effectively increased students' motivation and less effectively changed participants' knowledge and understanding and motor competence self-perceptions. Hedges' correction showed a medium to large effect for the PLIC and students' PLP. Holler et al.'s (2019) result support the study's finding of changes to PLP after focused instruction and regular exercise participation.

The PLIC for the laboratory sessions was developed to increase student success and the progression of PL skills (Tremblay & Lloyd, 2010). Research Question 2 identified students' perceived motor competence. Students learned new exercises that positively changed their physical abilities and PL during class. One student wrote, "*I scored low, but later on, I improved more than what I thought I would at the end of class. Now I know the changes that I need to make with the motivation to make the changes in my life to become more physically fit for my age*."

The students exercised and connected the interrelatedness of the PL attributes (IPLA, 2019; Whitehead, 2013). The PL-focused laboratory session of the course was specifically designed to increase student success and the progression of PL skills (Rudd, Pesce, et al., 2020; Stodden et al., 2009). On the first day of class, students learn and complete a "*loaded carry*" after demonstrating correct upper body posture and performing one every day. One focus group participant shared when talking about their favorite exercise choice, the "*loaded carries, and he encouraged me to add more weight, and I could feel myself get stronger*." Students stated that the development occurred in the class and transferred to the rest of their day; one said they "*feel much more sure of myself when completing the physical activity in the Wellness Lab and outside*

the class." Students' perception of their PL progressed from participating in the course, a learning intention of PL (ASC, 2019b; Whitehead, 2010; Whitehead et al., 2018).

Students learned new exercises that, if completed twice weekly with encouragement to improve, can recognize the positive changes, a critical component for lifetime PA participation (Rudd, Pesce, et al., 2020; Stodden et al., 2009; Stodden et al., 2013). Students readily acknowledge that they could lift a certain amount of weight when they started. After several weeks of training, it is self-evident when they can move more weight. One participant wrote that my "*physical competence had increased a lot. I can make movements better than I used to, some for longer and higher intensities.*"

Students individually experienced the class uniquely during their PL journey (Young, O'Connor, et al., 2020). Students with an extensive movement history may not have found as many exercises as challenging as others (Stodden et al., 2009; Stodden et al., 2013). Students noted moving better from participating in their daily movement prep "*my motor competence has also improved from exercises such as hurdle walkovers and bear crawls*" and extended beyond class, my "*motor competence has gotten better by how I walk, how I sit, and when working out, how I maintain a neutral spine all throughout the sessions*." Many students affirmed positive changes to their movement ability, a goal of PL (ASC, 2019b; Whitehead, 2010; Whitehead et al., 2018). There is evidence from this research that students' motor competence improved, which was the desired outcome of PL (Robinson et al., 2015; Rudd, Crotti, et al., 2020; Rudd, Pesce, et al., 2020).

This study also provides evidence that the students developed their movement competence during the class. A student noted improved confidence during a focus group interview, stating, "*I feel a lot more balanced, and my form definitely has improved a lot so that*

they increase my confidence." A participant summed up their feelings by writing, "*I've developed my physical ability, and I've gained a better knowledge and understanding of how important it is to maintain a lifetime of physical activity.*"

Researcher feedback for their required daily exercise check-in made participants feel *I got better because I was helped*. Students noted during an interview, "*the professor helped me gain that confidence in all the exercises*." Improving one's technique for training, getting stronger, and other physical ability changes are more accessible to recognize than more complex constructs (Jurbala, 2015). Students realized, "*I could feel myself get stronger*." Consequently, the interrelated nature of PL and the data demonstrated that the attributes are interconnected (Edwards et al., 2018; Rudd, Pesce, et al., 2020). Many students shared that their improved motor competence helped their confidence, which increased their motivation to be physically active, like,

> *My motor control increased. On the first day of class, I could barely make it over the hurdle walkovers, and now I'm able to make it over them with ease. I started to feel more confident in the exercises and learned a lot more about the training and physical activity I was doing in this class. That motivated me.*

However, not every student's response was positive and affirming. When responding, if their confidence improved, a few students indicated their confidence remained the same; one student noted, "*there has been no change in my confidence.*"

Motivation is a limiting factor for participation in PA (Romero-Blanco et al., 2020). Intrinsic motivation is linked to enjoyment and performance, which increases PA participation (Edwards et al., 2017; Rudd, Pesce, et al., 2020). A student shared, "*my motivation and*

confidence have increased, as I realized that I am improving more than I thought I could improve, and it only makes me want to push harder to keep on improving."

Although the findings showed potential for students to progress in their physical literacy perspective, the study had limitations. The small sample size (n =13) and the constraints of the PPLI (Ma et al., 2020; Sum et al., 2018) restrict the results. Students completed several assignments for the course used for data analysis, which may have skewed students to respond positively for fear of earning a lower grade. There is limited transferability of the findings. The specific PLIC and movement philosophy of the researcher who taught the course restricts a widescale adoption of the exercises used (Lincoln & Guba, 1985; Miles et al., 2014).

Conclusion

The current findings suggest that a PLIC has the potential to change a student's physical literacy perspective when enrolled in a wellness and activity course. The change in perception may increase the student's level of participation in physical activity and experience positive consequences to their wellness. Students' perception of their PL significantly improved while enrolled in a PL-focused wellness and activity course. One of the four PL attributes, motivation, significantly improved from pre- to post-PPLI survey. Most students shared their perception of positive changes and improved attitudes towards wellness in the study, reinforced in their assignments and interviews. Five themes were excavated from the students' experiences during class: *I feel confident*, *I got better because I was helped*, *I am motivated*, *I move better*, and *I learned new information*. Progressing students' PLP may increase their future physical activity participation. The duration of these changes in perception was not measured and may return to their original pre-course levels. Other colleges, fitness facilities and equipment, curriculum focus, student samples, and semesters may produce varying results. A PLIC for college wellness

and activity course may be the last time adults are exposed to the concept of PL. Future studies will be necessary to establish which PLIC creates the most significant and long-lasting changes to student PLP and the students' perspectives.

CHAPTER II: DISSEMINATION

On March 10, 2022, I submitted a proposal to share my findings at the 99th Annual TAHPERD Convention in Corpus Christi, TX, from November 30 through December 3, 2022. Notification of acceptance or rejection of the proposal will be sent through the mail by August 15, 2022. The purpose of the presentation is to present the information to other faculty who teach college wellness and activity courses, future physical educators, and others interested in learning about physical literacy. The following is a narrative of the presentation. See Appendix M for the presentation slides.

Slide 1: Presentation Title: Community College Students' Perception of Physical Literacy During a Wellness and Activity Class

My name is Dave Wiederrecht. I teach at Lone Star College-University Park in northwest Houston. The presentation is about the findings from my exploratory mixed methods research conducted to fulfill the graduation requirement for UNCG during the fall of 2021 related to students' perception of physical literacy during a wellness and activity course.

Slide 2: Background and Rationale

The USA is a sedentary society, with the average American sedentary behavior for 7.7 hours a day. College students average 11 hours a day. College is a critical time to establish PA habits for life, and PE courses are the best place to teach PL. PL is promoted as a process to increase lifetime PA participation.

Slide 3: Purpose and Research Questions

The purpose was to investigate community college students' perception of physical literacy during a wellness/ activity course. RQ1- What are the community college students' perceptions of Physical Literacy during a wellness and activity course? Does a community

college student's perceived motor competence change during a physical literacy-focused wellness and activity course?

Slide 4: PL Definition and Movement Philosophy

The ASC (2019b) defines PL as the "knowledge, behaviors, and skill to provide the motivation and confidence to participate in an active life." The four interrelated attributes of PL are confidence, knowledge, and understanding of the benefits of a physically active lifestyle, motivation, and motor competence (IPLA, 2017). The movement philosophy is, "Move well. Move often." Share with the attendees the critical value of defining PL for the study and what the attributes for the definition are. The definition determines what assessments can measure the interrelated nature of PL.

Slide 5: Presentation Objectives

The why of the presentation. Attendees will identify their movement philosophy and physical literacy definition. Participants will determine the four attributes of physical literacy used during the research. Participants will evaluate how to add a PL-focused unit to their current curriculum. Participants will assess the effectiveness of the study.

Slide 6: Methods

Share the setting for the research and details about the course, the curriculum, and the students. Mention some general facts about LSC-UP to the attendees. Talk about the exploratory mixed methods design of the study and where the data for the finding originated. Share information about the liaison and how they conducted the interviews and helped with documenting the participants. I will describe the PL focus during the lecture and lab portions of the class and how most activities direct students towards progressed PL.

Slide 7: Pre-Modified PPLI QR Code

A modified Perceived Physical Literacy Instrument five-point Likert scale survey. As an example of what the students completed for the research.

Slide 8: Survey Analyses

Describe the descriptive statistics and the measures used—*t*-tests used for the pre- and post-comparison—*t*-tests used for the attributes of PL pre- and post-comparison. Hedges' correction used showed a medium to large effect size. The Bonferroni Correction is used to control for Type I errors. The alpha is adjusted to correct for the confidence interval. The $p < .05$ is divided by four and the new *p*-value is $p < .0125$. Share with the participants the purpose of Cronbach's Alpha to measure the internal consistency of the survey statements for the participants, but not the general public.

Slide 9: Qualitative Analysis

Describe the nine open-ended questions used with the Post-PPLI survey. Share information about the required essay and the students' chance to describe their PL journey throughout the course. Provide details about the two focus groups and three individual interviews—the format of the interviews and how the transcripts were created using WebEx. Explain how the liaison shared the transcripts with the participants for member checking. Talk about the process of reviewing the data and coding the responses. Finally, using axial coding to reveal the themes from the students.

Slide 10: Survey Findings—Pre- to Post-PPLI Comparisons

While using descriptive statistics, reviewing the pre to post-modified PPLI results, the mean significantly decreased (moving towards strongly approve), so perceived PL increased with a reduction in the size of the standard deviation ($t(12) = 3.058$, $p = .01$). Using Hedges'

correction with a medium to large effect size for the treatment (Hedges' g = 0.794; 95% CI [0.184-1.380]). Cronbach's Alpha for the pre was α = .903 indicates excellent internal consistency and for the post was α = .879, indicating good internal consistency. The small sample size suggests that there is good reliability for the survey items for the participants.

Slide 11: Survey Findings—Pre- to Post-PPLI PL Attribute Comparisons

Review the four attributes with greater detail in the following two slides. The PL attribute of confidence was measured using PPLI questions 1, 2, 6, and 9. Knowledge and understanding were assessed through questions 1, 4, 5, 7, 8, and 9. Motivation used questions 2, 3, 5, 7, and 8 for statistical analyses. Motor competence used students' responses for questions 1, 4, 5, 6, and 8. Using the Bonferroni Correction to control for Type I errors, the adjusted alpha is $\alpha_{new} = \alpha_{original} / n = .05 / 4 = .0125$, $p < .0125$ (Simes, 1986). The pre-PPLI confidence mean was 8.23 (*SD* = 3.140), and the mean for post-PPLI confidence was 6.77 (*SD* = 2.088). No significant difference between the pre- to post-PPLI confidence was found ($t(12) = 2.456$, $p = .030$). A medium-to-large effect size was found (Hedges' g = 0.638; 95% CI [0.059-1.195]). The mean for the pre-PPLI knowledge and understanding was 12.77 (*SD* = 4.604), and the mean for post-PPLI knowledge and understanding was 10.16 (*SD* = 3.099). While not statistically significant, a trending decrease from pre- to post-PPLI knowledge and understanding was found ($t(12) = 2.871$, p = .014). A medium-to-large effect size was found (Hedges' g = 0.745; 95% CI [0.146-1.322]). The mean for the pre-PPLI motor competence was 10.17 (*SD* = 4.226), and the mean for post-PPLI motor competence was 9.15 (*SD* = 2.968). While not statistically significant, a trending decrease from pre- to post-PPLI motor competence was found ($t(12) = 2.719$, p = .019). A medium-to-large effect size was found (Hedges' g = 0.706; 95% CI [0.114-1.275]). Using Hedges' correction, the corrected effect size for each PL attribute indicated a medium to

large effect size. A statistically significant decrease from pre- and post-test for the PPLI attribute of motivation ($t(12) = 3.090$, $p = .009$ $p < .0125$). Using the Bonferroni Correction, the *p*-value of .009 did not exceed the significance level of $p < .0125$. A medium-to-large effect size was found (Hedges' g = 0.802; 95% CI [0.191-1.390]). Cronbach's alpha indicates good internal consistency for the four attributes.

Slide 12: Five Themes

Five themes were drawn from the participants' responses to analyzing the data. The five themes are: *I feel confident, I am motivated, I move better, I learned new information,* and *I got better because I was helped*.

Slide 13: Themes [Option 1]

Share the three quotes about how students shared their experiences no their PL journey during the class. The interrelated nature of the quotes indicates that some students realized how one PL attribute could impact another attribute. Four of the themes are represented in the three selections: *I feel confident, I am motivated, I move better,* and *I learned new information*.

Slide 14: Themes [Option 2]

Share the five quotes from each theme; *I feel confident, I am motivated, I move better, I learned new information, and I got better because I was helped.*

Describing the interrelated nature of the attributes with the I move better helped a student's confidence in the quote. Explain the move well and move often image to the attendees, a four-word summary of PL. Notice the lack of punctuation at the end of move often; that is intentional.

Slide 15: Limitations

Share with the attendees the research limitations. The sample size was small, with only thirteen out of eighteen agreeing to participate, causing limited statistical power. The research

was novel and an exploratory design. Besides the focus group and individual interviews, every data collection tool was graded. Students may have answered in the belief that the response affects their grades. The PL progression may be temporary and not permanent if participants stop their level of PA and exercise. The finding is limited to the participants. From the two pictures, creating a challenge for the students with their movement prep is problematic compared to many other facilities.

Slide 16: Application and Discussion

Encourage attendees to consider their movement philosophy. Start small with one PE unit of a PE course to focus on PL. Consider creating a climate where students progress their PL through confidence, motivation, motor competence, and knowledge and understanding. Ask how they will assess PL, is their PL definition congruent with their movement philosophy, and how can you measure progress? Ask for volunteers to share their immediate thoughts about adding PL concepts to a course or unit. Always returning to the movement philosophy, PL definition, and how to assess PL progression. Finally, remind everyone that PL is a journey and not a destination.

Slide 17: Takeaways

Explain the four takeaways for success. Find a PL definition congruent with your movement philosophy promote and build your curriculum around. Direct your efforts to teach students about PL, its attributes, and build training expectations that promote student success and achievement. Provide opportunities for students to reflect on their successes and encourage movement challenges. Emphasize that the PL journey doesn’t end when the course ends, it is a lifelong adventure, encourage them to move well so they can move often.

Slide 18: Conclusion

Share the five conclusions from the research. Students' PL perception significantly progressed toward strongly agree. The modified PPLI may be a tool to measure changes to PL perception for a wellness and activity course. A PL-focused wellness and activity course may be the last time adults are exposed to PL. Specific PL curriculum for the lecture and laboratory may change motivation with trending decreases in motor competence and the knowledge and understanding of the benefits of a PA for life. A semester course may not create a permanent or sustainable progression in a student's PL perception.

Slide 19: Thank You and Questions

Check to see if anyone has a question. Review what my contact information is and that I am willing to share my resources with them

Slide 20: References

References A through M.

Slide 21: References

References P through W.

CHAPTER III: ACTION PLAN

My research and findings will be presented to the kinesiology department at the Faculty Development Day during the second week of the fall semester at the college where the research was conducted. There is another full-time kinesiology faculty and approximately twelve kinesiology adjuncts. The purpose of the presentation is to define physical literacy and its relationship to promoting lifelong physical activity and creating a PL-focused curriculum while achieving the student learning outcomes for the course. Emphasizing individual improvement in each student's movement ability by focusing on biomotor abilities and movement planes will be noted. I will provide access to my resources, assessment tools, and related YouTube videos addressing movement and biomotor abilities and creating a PL-focused curriculum. I will allow faculty to observe my classes and offer to observe their course for discussion and to brainstorm for each academic session they teach at the college.

Local/System Plans

Before the next curriculum team day occurs during the faculty preparation week before the semester, I will contact the college system's curriculum team chair to present my findings to the six other campus representatives. The curriculum team has a representative for each discipline from each campus to maintain consistency in instruction and assessment for the college system. If any campus representatives express interest, we can coordinate the best method to share my results with each campus, whether in person or through a WebEx meeting. Some of the adjunct kinesiology faculty teach at the local independent school districts. Challenging the faculty to adopt one or two PL-focused elements into a PE unit is a manageable start to increasing a student's PL journey. If they share the information with their peers or department chairs, I will arrange to share my experiences and knowledge.

Professional/Research Plans

I plan to continue researching physical literacy-related topics and refining the PL-focused curriculum, with changes initiated during the semester after the research, including more open-ended statements for student reflection at the start of more class sessions. I want to synthesize a holistic assessment for perceived physical literacy accessible to all PE teachers who want to adopt a PL-focused curriculum and accurately measure PL perception. One critical need is to longitudinally follow students to determine what physical literacy-focused curriculum makes meaningful and sustainable changes to participants' lifestyles.

Additionally, I am a member of the National Academy of Health and Physical Literacy. I want to present my findings at the 2023 Health & Physical Literacy Summit in February 2023. I suggested that a member of the organization create a roundtable discussion recognizing the various PL definitions and their implications. My goal is to promote PA participation through progressed PL perception.

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APPENDIX A: COURSE LECTURE TOPICS

PHED 1164 lecture topics	Content	Attributes of PL	Laboratory Application
Introduction	✓ Safety ✓ Course expectations, procedures, and policies ✓ Movement philosophy ✓ Movement prep including biomotor abilities and planes of movement ✓ Posture and breathing ✓ Physical literacy defined and attributes ✓ PA continuum ✓ Leading causes of death are lifestyle related	• Knowledge and understanding of the relationship between PA and wellness • Motor competence- building the foundation of movement • Motivation- redefining success through individual achievement • Confidence	• Safety explained and addressed daily • Movement preparation progression • Fitness and movement assessments • Breathing • Postural cues • Increase PA
Chapter 1: Introduction to Wellness, fitness, and lifestyle management	✓ Definition of vital terms ✓ Differentiate between PA and exercise ✓ PA continuum ✓ Movement is the foundation of fitness ✓ Physical activity is critical to a wellness lifestyle ✓ Dimensions of wellness	• Knowledge and understanding of the relationship between PA and wellness • Motivation- redefining success through individual achievement	• Movement preparation progression • Fitness and movement assessments • Training progression • Dimensions of wellness • Increase PA
Chapter 2: An overview of physical fitness	✓ Recommended levels of PA ✓ PA continuum ✓ The four attributes of -Health-Related Physical Fitness ✓ Initial concepts of developing a training program	• Knowledge and understanding of the relationship between PA and wellness	• Movement preparation progression • Increase PA • Fitness and movement assessments • Training progression • Increase PA
Chapters 3-6: Cardiorespiratory endurance, Muscular fitness, Flexibility, and body composition	✓ The four components of HRPF ✓ Assessments of the components of fitness ✓ Physical activity improves HRPF	• Knowledge and understanding of the relationship between PA and wellness • Motor competence- building the foundation of movement • Motivation- redefining success through individual achievement • Confidence	• Movement preparation progression • Fitness and movement assessments • Training progression • Increase PA
Chapter 7: Developing a Complete fitness program	✓ Training concepts ✓ Elements of a training program ✓ Evaluating a lifetime activity assignment ✓ PA continuum	• Knowledge and understanding of the relationship between PA and wellness • Motor competence- building the foundation of movement • Motivation- redefining success through individual achievement	• Movement preparation progression • Incorporating the training concepts into the daily training • Increase PA
Chapter 8: Nutrition	✓ Explicit details about the six nutrients ✓ RDA and alternative diet plans ✓ Caloric intake	• Knowledge and understanding of the relationship between PA and wellness	• Physical activity and fueling the body • Increase PA
Chapter 9: Weight Management	✓ Metabolism- factor effecting ✓ Diet misconceptions ✓ Dietary choices ✓ Hormonal response of nutrients ✓ PA continuum	• Knowledge and understanding of the relationship between PA and wellness	• Increasing p • Training res • Increase PA
Chapter 10: Stress	✓ Stress defined ✓ Stress's effects on the body ✓ Benefits of PA	• Knowledge and understanding of the relationship between PA and wellness	• Increasing F
Chapters 11-12: Cardiovascular disease and Cancer	✓ Leading causes of death ✓ Preventative/protective nature of PA	• Knowledge and understanding of the relationship between PA and wellness	• Increase PA • Fitness and assessments
Chapters 13-14: Alcohol, drugs, and tobacco and Sexually	✓ Define addiction ✓ Consequences of risky behaviors	• Knowledge and understanding of the relationship between PA and wellness	• Increase PA • Fitness and assessments

APPENDIX B: TRAINING CYCLES AND STRATEGIES

Training	Training parameters	Required and total number of exercises	Cycle Strategies/ Objectives	Attributes of PL
CYCLE I	1 set initially progressing to 3 sets of 10 repetitions	Six required exercises- loaded carry, pull-up, deadlift, pushing/press, elastic band, stability ball Ten total exercises	• Introduction to breathing, posture, and cues • Start with loaded carries, an exercise most students have minimal experience • Assess and improve the hip hinge • Challenge grip strength • Introduce elastic and gravity- based exercises • Create opportunities for individual success	• Motor competence through assessments, correct technique, and feedback. • Motivation by completing exercises correctly, success. • Confidence through feedback and encouragement • Knowledge and understanding of the elements of movement.
CYCLE II	3 sets of 8 repetitions	Six required exercises- loaded carry, pull-up, deadlift, pushing/press, KB swing, elastic band or stability ball Eleven total exercises	• Continue the foundation of movement • Create dynamic explosiveness in a hip hinge • Progress hip hinge • Create opportunities for individual success • Challenge grip strength	• Motor competence through challenge and improving technique through feedback. • Motivation by completing exercises correctly, success. • Confidence through feedback and encouragement • Knowledge and understanding of the elements of movement.
CYCLE III	4 sets of 6 repetitions	Six required exercises- Turkish get up, loaded carry, pull-up, deadlift, KB swing, squat Eleven total exercises	• Introduce a self-limiting exercise involving three planes of movement • Introduce the squat based on the FMS Deep Squat screen score • Continue progression of the hip hinge • Challenge grip strength • Create opportunities for individual success	• Motor competence through challenge and improving technique through feedback. • Motivation by completing exercises correctly, success. • Confidence through feedback and encouragement • Knowledge and understanding of the elements of movement.
CYCLE IV	Student autonomy	Student autonomy	Students create their training program	• Demonstrate elementary knowledge and understanding of training design. Confidence developed through chosen exercises. Motivation to continue exercises. • Motor competence by requesting feedback on their exercises.

APPENDIX C: PRE-MODIFIED PPLI PERCEIVED PHYSICAL LITERACY INSTRUMENT THROUGH QUALTRICS®

Please type the last four digits of your student ID number for PRE- Test and answer the demographics questions. The review of the survey results will happen after the final grades are posted. The survey results are anonymous, and by participating, you allow the researcher to use your data. Thank you for using the same number for the PRE- and POST-test.

Strongly agree **somewhat agree** **neither agree nor disagree** **somewhat disagree** **strongly disagree**

I am physically fit according to my age.

I have a positive attitude and interest in physical activity/ exercise participation.

I appreciate myself or others participating in physical activity/ exercise.

I possess the ability to self-manage my physical activity, exercise, and fitness.

I possess the ability to evaluate my health and wellness.

I enjoy challenging my physical activity/ exercise abilities.

I possess the motivation to be physically active.

I am capable of handling problems and difficulties.

I know the benefits of participating in a physically active lifestyle.

APPENDIX D: POST-MODIFIED PPLI PERCEIVED PHYSICAL LITERACY INSTRUMENT OPEN-ENDED TEXT FORMAT ENTRY THROUGH QUALTRICS®

Please type the last four digits of your student ID number for PRE- and POST-Test results comparison. The analysis of the survey results will occur after the grades are posted. Thank you for using the same number for the PRE- and POST-test.

Strongly agree **somewhat agree** **neither agree nor disagree** **somewhat disagree** **strongly disagree**

I am physically fit according to my age. [Likert]

Did your perception about your age-specific physical fitness level change due to **your** experiences during the academic session? If so, describe?

I have a positive attitude and interest in physical activity/ exercise participation. [Likert]

Did your attitude or interest in physical activity/ exercise participation change due to **your** experiences during the academic session? If so, how did they change?

I appreciate myself or others participating in physical activity/ exercise. [Likert]

Did your appreciation of physical activity/ exercise participation change due to **your** experiences during the academic session? If so, how does your appreciation differ now?

I possess the ability to self-manage my physical activity, exercise, and fitness. [Likert]

Did your ability to self-manage your physical activity, exercise, and fitness change due to **your** experiences during the academic session? If so, how?

I possess the ability to evaluate my health and wellness. [Likert]

Did your ability to evaluate your health and wellness change due to the experiences during **your** academic session? If so, how?

I enjoy challenging my physical activity/ exercise abilities. [Likert]

How did you challenge the edge of your ability during PHED 1164?

I possess the motivation to be physically active. [Likert]

How did your motivation level change during PHED 1164?

I am capable of handling problems and difficulties. [Likert]

How is your ability to manage problems and difficulties different now than at the start of PHED 1164?

I know the benefits of participating in a physically active lifestyle. [Likert]

How has your knowledge and understanding **of the benefits** of a physically active lifestyle changed since taking PHED 1164?

APPENDIX E: PRE- AND POST-FITNESS AND MOVEMENT ASSESSMENTS

Pre-fitness and movement assessments: students evaluate their performance to determine each assessment's rating	Post-fitness and movement assessments: students assess their performance to determine each assessment's rating
Blood pressure	Blood pressure
Backward skipping	Backward skipping
Grip dynamometer- three positions for left and right hand	Grip dynamometer- three positions for left and right hand
Body composition- using electrical bioimpedance	Body composition- using electrical bioimpedance
Single leg stance- left and right	Single leg stance- left and right
Sitting-rising test	Sitting-rising test
Hip hinge assessment	Hip hinge assessment
Farmer's walk (maximum)	Farmer's walk (maximum)
Functional Movement Screen deep squat	Functional Movement Screen deep squat
Functional Movement Screen shoulder mobility	Functional Movement Screen shoulder mobility
Standing long jump	Standing long jump
Rockport walk test	Rockport walk test
Sit and reach	Sit and reach
	Hardstyle kettlebell swing or Turkish get up

APPENDIX F: FOCUS GROUP INTERVIEW QUESTIONS

1. What experiences in PHED 1164 were meaningful to you? Perspectives (R1).
2. What exercises do you perceive helped increase your motor competence, confidence, and motivation? Perceived (R2).
3. What exercises you chose to complete did you enjoy the most and least during the class? Perspectives (R1).
4. How did your idea about physical literacy change related to your motor competence, confidence, motivation, and the knowledge to maintain a physically active lifestyle? Perceived (R2).
5. Describe how this course might affect your future physical literacy journey? Perspectives (R1).

APPENDIX G: INDIVIDUAL INTERVIEW QUESTIONS

1. What effects did your class experiences have on your movement, physical activity, and exercise this semester? Perspectives (R1).
2. After taking this class, what are your perspectives on physical literacy? Perspectives (R1).
3. After taking this class, do you feel you have the motor competence to achieve your future physical activity goals? Perceived (R2).
4. How does the concept of physical literacy related to your motor competence, confidence, motivation, and knowledge to maintain an active lifestyle? Perceived (R2).
5. How has this class changed your perceptions of your physical literacy journey? Perspectives (R1).

APPENDIX H: IRB RECRUITMENT SCRIPT

Your professor for PHED 1164 6313, the researcher, is researching to complete his dissertation at the University of North Carolina- Greensboro. The research focuses on community college students' perspectives of their physical literacy. When defining physical literacy, Sport Australia (2019, p 5) states that it "is about developing the skills, knowledge, and behaviors that give us the confidence and motivation to lead active lives." Your voluntary participation in the study will further the knowledge about physical literacy and community college students. You are eligible for the study because you enrolled in PHED 1164 6313 Introduction to Physical Fitness and Wellness during the Fall 2021 semester.

Your participation in this research study determines how a physical literacy-focused curriculum for a community college wellness and activity course impacts a student's physical literacy perspectives. There are no required assignments to complete outside of graded coursework. If you choose to participate in this study, you will complete two online surveys, several other course assignments, and exercise during the required daily laboratory sessions. The pre-survey asks you to rate nine different statements from strongly agree to disagree strongly. The post-survey uses the same statements but allows for open responses to provide any thought about each statement if needed. The pre-and post-survey will require approximately ten minutes to complete. The additional assignments during the class provide data for the study. Closer to the end of the semester, students may voluntarily participate in individual and group WebEx interviews. Interview participants can expect about twenty minutes to conduct the interview. The course assignments receive a grade and vary in time commitment but are academic requirements for successful course completion.

Your participation in this research project is voluntary. You can choose to be in the study or not. Since the semester started and you have completed some of the coursework used for data collection, granting permission allows the previous data collected to be used along with the new data collected. Choosing not to participate or withdrawing from the study will not affect your grade. If you'd like to participate, sign your name and return the consent letter that I, Dr. McQuade, gave you.

If you have any questions about participating in the study, contact deleted at deleted @ deleted.edu.

APPENDIX I: STUDENT CONSENT FORM

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT

Project Title: Community College Students' Perspectives about Their Physical Literacy Journey During a Required Physical Activity and Wellness Class

Principal Investigator and Faculty Advisor: David E. Wiederrecht
Faculty Advisor: Dr. Ben Dyson

Participant's Name: _____ [print your name]

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to participate in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. Suppose you choose not to be in the study or leave the survey before it is done. In that case, it will not affect your relationship with the researcher, the University of North Carolina at Greensboro, Lone Star College System, or your grade for PHED 1164.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given an electronic copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research project. The study aims to research students' perception of their physical literacy during a wellness and activity class.

Why are you asking me?

You are asked to participate in the study because you are a community college student enrolled in PHED 1164 6313, and the researcher is using this class to conduct the study. Students enrolled in PHED 1164 6313 are eligible to participate. If a student cannot perform a hardstyle kettlebell swing or Turkish get up by the end of the class, they will have their non-deidentified data excluded. Students who do not participate in every required training session are ineligible (students may complete workouts outside of class following explicit guidelines).

What will you ask me to do if I agree to be in the study?

With your permission, I would like to use your results from the pre- fitness and movement assessment tests, the PPLI online surveys, and daily performance for your exercise

check-in that you completed as part of the course assignments as data for my study. All of the data collection assignments and expectations are required coursework for students to earn their grades for the course. Additional assignments, including the Chapter 7 homework and the essay, will be analyzed for data. I am asking your permission to use your responses to the surveys, the Chapter 7 homework, and your essay as data for my research study. You may also be asked to participate in an individual interview or focus group lasting **about twenty minutes.** Students will participate and actively engage in both the lecture and laboratory sessions of the class twice weekly. Academic assignments are based on course content from the lecture and laboratory portions of the class. Students will learn and participate in a physical literacy-focused training program using resistance training as the exercise modality during the laboratory sessions. Students will complete pre-and post- fitness and movement assessments. Ask the researcher or contact deleted (deleted @ deleted.edu) if you have any questions, another Lone Star College-University Park kinesiology professor.

Is there any audio/video recording?

Students may be asked to participate in individual or focus group interviews. The interviews will be conducted using WebEx Meeting technology through the Desire 2 Learn (D2L). After each interview, participants will receive a transcription of the interview for member checking purposes. If students do not identify and notify the researcher of any errors in transcription or meaning via email, the researcher assumes the transcription is accurate. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for your statements on the recording cannot be guaranteed. However, the researcher will try to limit access to the recording as described below.

What are the risks to me?

The Institutional Review Board at the University of North Carolina at Greensboro and Lone Star College System has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information, or have suggestions, don't hesitate to contact Dave Wiederrecht (David.e.wiederrecht@lonestar.edu), the principal investigator, and Dr. Ben Dyson (bpdyson@uncg.edu), the UNCG Faculty Advisor for the research study.

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project, or the benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free (855)-251-2351.

Are there any benefits to society as a result of my taking part in this research?

Students participating in the study may experience changes to their physical literacy and increase physical activity participation for the remainder of their life.

Are there any benefits to *me* for taking part in this research study?

There are no direct benefits to participants in this study.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to participants or payments made for participating in this study.

How will you keep my information confidential?

The course instructor will not know who agreed to participate in the study until

submitting the final grades. Study research data will be kept confidential. Computers and iPads used for data collection are password protected. Data collected will be stored in Onedrive cloud storage which is password protected. Participant's names will be deidentified when data are disseminated. For the online survey, anonymous data collection procedures are utilized, identifiers are used to compare the two surveys. The data will be stored indefinitely on Onedrive. All information obtained in this study is strictly confidential unless disclosure is required by law.

For Internet Research, include this wording: Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data that has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available, that may relate to your willingness to continue participating. You will receive this information.

Voluntary Consent by Participant:

By checking yes and signing this consent form, you agree to participate in the study, agree that you read or have been read to you, fully understand the contents of this document, and are openly willing to consent to have your assignments used for the study. All of your questions concerning this study have been answered. By signing this form, you agree that you are 18 years of age or older and agree to participate in this study described to you by Dave Wiederrecht.

☐ Yes ☐ No

Signature: _____ Date: _____

APPENDIX J: PARENTAL CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
CONSENT FOR A MINOR TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: Community College Students' Perspectives about Their Physical Literacy Journey During a Required Physical Activity and Wellness Class

Principal Investigator: primary investigator
Faculty Advisor: Dr. Ben Dyson, University of North Carolina-Greensboro

Participant's Name: _____ [print your name]

What are some general things you should know about research studies?

Your child is being asked to take part in a research study. Your child's participation in the study is voluntary. You may choose for your child not to join, or you may withdraw your consent for him/her to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. Your child's voluntary participation in the study will further the knowledge about physical literacy and community college students. The research focuses on community college students' perspectives of their physical literacy. When defining physical literacy, Sport Australia (2019, p 5) states that it "is about developing the skills, knowledge, and behaviors that give us the confidence and motivation to lead active lives." This new information may help people in the future. There may not be any direct benefit to your child for being in the research study. There also may be risks to being in research studies. If you choose for your child not to be in the study or you choose for your child to leave the study before it is done, it will not affect your relationship or your child's relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about your child being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research project. Your child's participation in this project is voluntary. The study aims to research students' perception of their physical literacy during a wellness and activity class.

Why are you asking my child?

The reason for selecting their child; because your student is enrolled in PHED 1164 6313, and the researcher is using this class to conduct the study. Students enrolled in PHED 1164 6313 are eligible to participate. If a student cannot perform a hardstyle kettlebell swing or Turkish get

up by the end of the class, they will have their non-deidentified data excluded. Students who do not participate in every required training session are ineligible (students may complete workouts outside of class following explicit guidelines).

What will you ask my child to do if I agree to let him or her be in the study?

With your permission, I would like to use your student's results from the pre- fitness and movement assessment tests, the PPLI online surveys, and daily performance for your child's exercise check-in that your child completed as part of course assignments as data for my study. All of assignments listed in this section are required coursework for students to earn their grades for the course. The purpose of this consent form is to request you permission to use these assignments as data for a research study. I am asking your permission to use your student's responses to the surveys, the Chapter 7 homework, and essay as data for my research study. Your child may be asked to participate in an individual interview or focus group lasting **about twenty minutes.** Students will participate and actively engage in both the lecture and laboratory sessions of the class twice weekly. Academic assignments are based on course content from the lecture and laboratory portions of the class. Students will learn and participate in a physical literacy-focused training program using resistance training as the exercise modality during the laboratory sessions. Students will complete pre-and post- fitness and movement assessments. The study's duration is from the beginning of the semester until the final grades are entered in December. Ask the researcher or contact deleted (deleted @ deleted.edu) if you have any questions, another Lone Star College-University Park kinesiology professor.

Is there any audio/video recording of my child?

Your child may be asked to participate in individual or focus group interviews. The interviews will be conducted using WebEx Meeting technology through the Desire 2 Learn (D2L). After each interview, participants will receive a transcription of the interview for member checking purposes. If students do not identify and notify the researcher of any errors in transcription or meaning via email, the researcher assumes the transcription is accurate. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for your statements on the recording cannot be guaranteed. However, the researcher will try to limit access to the recording as described below.

What are the dangers to my child?

The Institutional Review Board at the University of North Carolina at Greensboro and Lone Star College System has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information, or have suggestions, don't hesitate to contact the researcher (researcher @lonestar.edu), the principal investigator, and Dr. Ben Dyson (bpdyson@uncg.edu), the UNCG Faculty Advisor for the research study.

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project, or the benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free (855)-251-2351.

Are there any benefits to society as a result of my child taking part in this research?

As a student participating in the study, your child may experience changes to their physical literacy and increase physical activity participation for the remainder of their life.

Are there any benefits to *my child* as a result of participation in this research study?
There are no direct benefits to participants in this study.

Will my child get paid for being in the study? Will it cost me anything for my kid to be in this study?
There are no costs to you or payments to you or your child as a result of participation in this study.

How will my child's information be kept confidential?
The course instructor will not know who agreed to participate in the study until submitting the final grades. Study research data will be kept confidential. Computers and iPads used for data collection are password protected. Data collected will be stored in Onedrive cloud storage which is password protected. Participants' names will be deidentified when data are disseminated. For the online survey, anonymous data collection procedures are utilized, identifiers are used to compare the two surveys. The data will be stored indefinitely on Onedrive. All information obtained in this study is strictly confidential unless disclosure is required by law.

For Internet Research, include this wording: Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

Will my child's deidentified data be used in future studies?
Your child's data will be destroyed on December 9, 2031. Your child's deidentified data will not be stored and will not be used in future research projects.

What if my child wants to leave the study or I want him/her to leave the study?
You have the right to refuse to allow your child to participate or to withdraw him or her at any time, without penalty. If your child does withdraw, it will not affect you or your child in any way. Choosing to not allow your child to participate or withdrawing your child from the study will have no impact on your child's grade or their status in the class If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your child's participation at any time. This could be because your child has had an unexpected reaction, has failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?
If significant new information relating to the study becomes available, which may relate to your willingness to allow your child to continue participating, this information will be provided to you.

Voluntary Consent by Participant:
By signing this consent form, you agree that you have read it or it has been read to you, and you fully understand the contents of this document and consent to your child taking part in this study. All of your questions concerning this study have been answered. By signing this form, you agree that you are the legal parent or guardian of the child who wishes to participate in this study described to you by Dave Wiederrecht.

_____ Date: _____
Participant's Parent/Legal Guardian's Signature

APPENDIX K: ASSENT TEMPLATE FOR MINORS 12-17

Project Title: Community College Students' Perception of Physical Literacy During a Wellness and Activity Class

Principal Investigator: PI

Why am I here?

We want to tell you about a research study we are doing. Research studies are done to find better ways of helping and understanding people or to get information about how things work. In this study we want to find out more about students' perception of their physical literacy during a wellness and activity class. The research focuses on community college students' perspectives of their physical literacy. When defining physical literacy, Sport Australia (2019, p 5) states that it "is about developing the skills, knowledge, and behaviors that give us the confidence and motivation to lead active lives." This new information may help people in the future. You are being asked to be in the study because you are enrolled in PHED 1164 6313 during Fall 2021 at LSC-UP. In a research study, only people who want to take part are allowed to do so.

WHAT WILL HAPPEN TO ME IN THIS RESEARCH STUDY?

All assignments listed in this section are required coursework for students to earn their grades for the course. The purpose of this consent form is to request you permission to use these assignments as data for a research study. If it is okay with you and you agree to join this study, you will be asked to complete a PRE- and POST modified PPLI survey online. The Chapter 7 homework and the written essay are sources of data for the study. The daily exercise check-ins are part of the data collection. Complete the required course assignments, fitness and movement testing, and train according to the parameters during class. You may be asked to participate in interviews with your classmates, and your responses are data. The interviews are voluntary, and choosing not to interview doesn't affect your grade.

HOW LONG WILL I BE IN THE RESEARCH STUDY?

You will be in this study for the entire Fall 2021 semester

CAN ANYTHING BAD HAPPEN TO ME?

The Institutional Review Board at the University of North Carolina at Greensboro and Lone Star College System has determined that participation in this study poses minimal risk to participants. You may experience muscular soreness when trying a new exercise. If you

participate in the interviews, sometimes the questions we ask you might seem strange and make you feel uncomfortable. If anything hurts or you are uncomfortable with some of the questions, please let us know and we will stop or do whatever we can to make you feel better.

CAN ANYTHING GOOD HAPPEN TO ME IN THIS RESEARCH STUDY?

We do not know if you will be helped by being in this project. However, we may learn something that will help other children change their perception of physical literacy in the future.

DO I HAVE OTHER CHOICES?

You do not have to be in this study. Your assignments and training are graded whether you are a participant or not.

WHAT IF I DO NOT WANT TO BE IN THIS RESEARCH STUDY?

You do not have to be part of this project. It is up to you. You can even say okay now, but change your mind later. All you have to do is tell us. No one will be mad at you if you change your mind.

WHAT ABOUT MY CONFIDENTIALITY?

We will do everything possible to make sure that your data and or records are kept confidential.

Unless required by law, only the study team can look at your records. They are required to keep your personal information confidential.

WILL I BE PAID FOR BEING IN THIS RESEARCH STUDY?

No, participants are not paid to participate.

DO MY PARENTS KNOW ABOUT THIS RESEARCH STUDY?

This study has been explained to your parent/parents/guardian and they have given permission for you to be in it.

WHAT IF I HAVE QUESTIONS?

You can ask Dave Wiederrecht (David.e.wiederrecht@lonestar.edu), deleted (deleted @ deleted.edu), or the UNCG Faculty Advisor: Dr. Ben Dyson bpdyson@uncg.edu anything about the study. You may also call the Director in the Office Research Integrity at or 855-251-2351.

ASSENT

This study has been explained to me and I am willing to be in it.

_____ _____

Child's Name (printed) and Signature Date

Check which applies below

☐ The child is capable of reading and understanding the assent form and has signed above as documentation of assent to take part in this study.

☐ The child is not capable of reading the assent form, but the information was verbally explained to him/her. The child signed above as documentation of assent to take part in this study.

_____ _____

Signature of Person Obtaining Assent Date

Version 4

APPENDIX L: MOVEMENT PREP (PRE-EXERCISE PREPARATION)

Running (walking if uncertain) – forward and backward (FMS – fundamental motor skill)

Galloping (changing the lead leg approximately halfway) – forward and backward (FMS)

Skipping – forward and backward (FMS)

Shuffle step – leading with the left and the right (FMS)

Carioca – leading with the left and the right

Bear crawl – added day five

Inchworm – added day seven

Hurdle walkovers – two times – (three options)

Balance beam – two times

Leg swings – four positions – forward and backward and across the body – five to seven reps each position

Additional challenges added within the first eight days

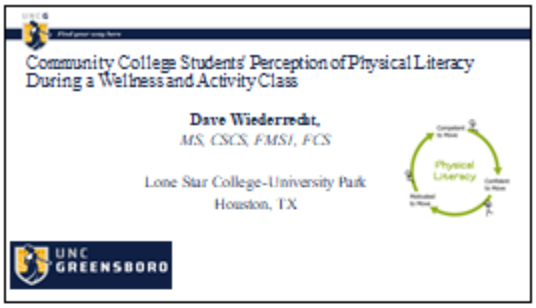
Skipping – arms swings and circles

Shuffle step – arm swings and circles and a one hundred and eighty-degree pivot

After the eighth day

Balance beam – eventual alteration from a straight line to random organizations, including the addition of banana steps to walk over (approximately 12” to 15” height), adding Airex pads, or placing 6” and 12” steps for level change

APPENDIX M: PRESENTATION SLIDES



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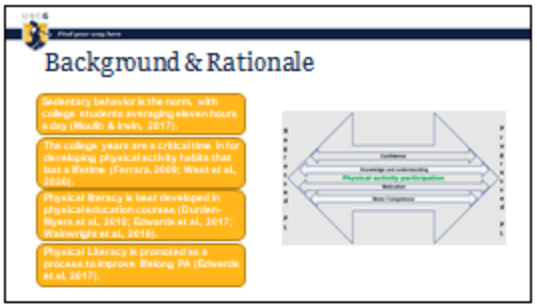

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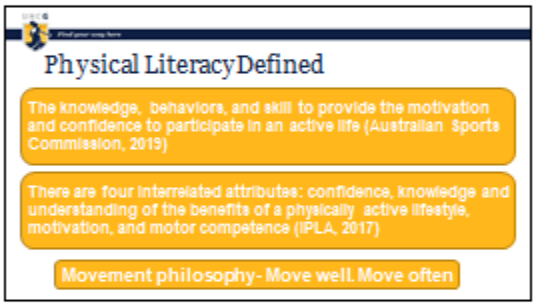

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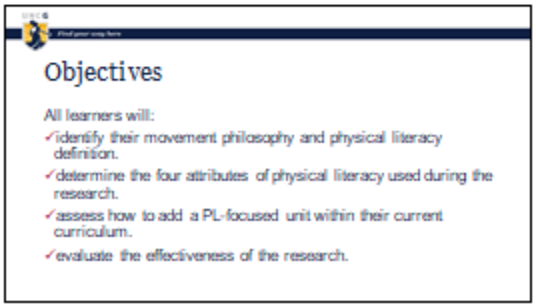

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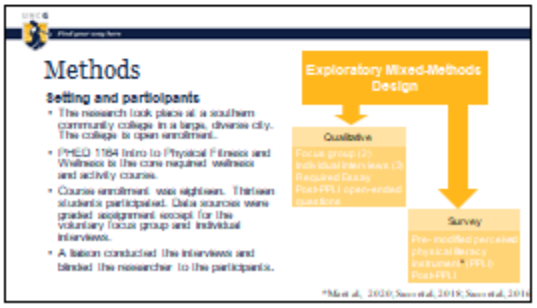
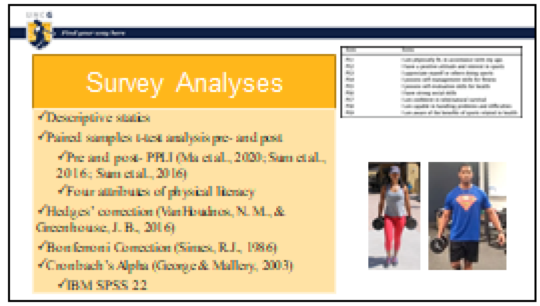


6


Pre-
assessment

7


Survey Analyses
✓Descriptive statics
✓Paired samples t-test analysis pre- and post
✓Pre and post- PPLI (Ma et al., 2020; Sum et al., 2016; Sum et al., 2016)
✓Four attributes of physical literacy
✓Hedges' correction (Van Houdnos, N. M., & Greenhouse, J. B., 2016)
✓Bonferroni Correction (Simes, R.J., 1986)
✓Cronbach 's Alpha (George & Mallery, 2003)
✓IBM SPSS 22

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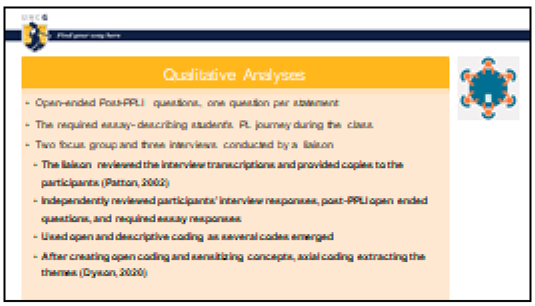
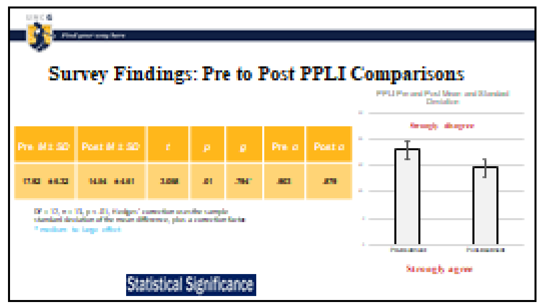
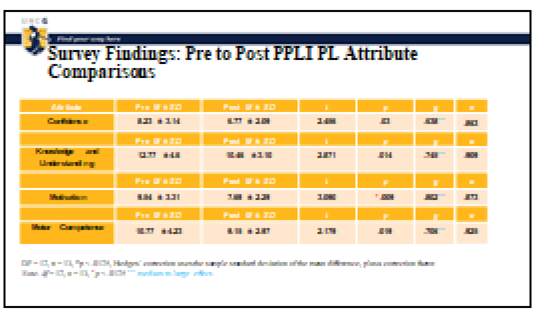

Qualitative Analyses
Open-ended Post-PPLI questions, one question per statement
The required essay- describing students PL journey during the class
Two focus group and three interviews conducted by a liaison
The liaison reviewed the interview transcriptions and provided copies to the participants (Patton, 2002)
Independently reviewed participants' interview responses, post-PPLI open ended questions, and required essay responses
Used open and descriptive coding as several codes emerged
After creating open coding and sensitizing concepts, axial coding extracting the themes (Dyson, 2020)

9


Survey Findings: Pre to Post PPLI Comparisons
Pre M ± SD
Post M ± SD
t
p
g
Pre α
Post α
Strongly disagree
Strongly agree
Statistical Significance

10


Survey Findings: Pre to Post PPLI PL Attribute Comparisons

11


Five Themes
I feel confident
I am motivated
I move better
I learned new information
I got better because I was helped
LEARN NEW THINGS
IMPOSSIBLE

12

Themes

"I feel like I learned a lot about how important physical activity is, and I want to make that a part of my daily life—every day. I also feel like this class just benefited me in more ways than one. From everything that I learned in the course, I can evaluate my health and wellness change."

"I've developed my physical ability, and I've gained a better knowledge and understanding of how important it is to maintain a lifetime of physical activity."

"My motivation and confidence have increased, as I realized that I am improving more than I thought I could improve, and it only makes me want to push harder to keep on improving."

move well. move often

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Themes

"I felt like I had really learned a lot from this class and like I took something beneficial away."

"I feel that I can move better, which makes me feel more confident."

My "confidence has gone up more than I could have imagined a year ago."

"My motivation has increased a lot from the start of this class. I now have the motivation to go out and live a life with more movement."

With the "*help of the professor. I learned new exercises and techniques for future training programs.*"

move well. move often

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Limitations

- Small sample size
- Exploratory research
- Many data points were graded assignments
- PL progression may be temporary
- Findings limited to this study
- Unique facility setting

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Application

- ✓Define your movement philosophy and congruent PL definition.
- ✓Consider a course or PE unit to focus specifically on PL.
- ✓Identify how you can progress students' confidence, knowledge and understanding, motivation, and motor competence.
- ✓Determine how will you assess students' PL progression?

Discussion

- ✓Does anyone want to share their ideas for a PL PE unit / course plans?

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Takeaways

- Find a PL definition to promote and build your curriculum around.
- Direct your efforts to teach students about PL, its attributes, and build training expectations that promote student success and achievement.
- Have students reflect on their successes and encourage movement challenges.
- Emphasize that the PL journey doesn't end when the course ends, it is a lifelong adventure.

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CONCLUSION

- Students' physical literacy perception significantly changed towards strongly agree.
- A modified PPLI may be a tool that measures perceived PL changes during a wellness and activity course.
- A PL-focused curriculum for a college wellness and activity course may be the last time adults are exposed to the concept of PL.
- Curriculum explicitly focusing on PL during the lecture and laboratory changes students' motivation with trending decreases in MC and KU.
- A semester course may not create long-lasting progress in a students' PL perception.

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Thank You and Questions

Does anyone have questions?

Contact- Dave Wiederrecht
david.e.wiederrecht@[illegible].edu
speedwied@hotmail.com
608 449 9189

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Dyson, B. (2020). *Research framework*. [illegible]

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[illegible]

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