

Perceived Physical Literacy Instrument for Young Adults

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Let's Get Started!

What's your PL background?

- Have you used a physical literacy (PL) tool in the last 5 years?
- When was the first time you ever heard the term PL?
- Do you feel as a young adult there's enough support around your PL development?

Overview

Details

- Originally designed to measure PE teachers' perception of their own physical literacy (PL)
- Study by R.K.W. Sum et al. (2018) aimed to test the reliability and validity of the Perceived Physical Literacy Instrument (PPLI) for adolescents
- The study confirmed the PPLI is reliable and valid for adolescents
- PPLI is now used to assess physical literacy in adolescents

Item	Items
PL1	I am physically fit, in accordance with my age.
PL2	I have a positive attitude and interest in sports
PL3	I appreciate myself or others doing sports
PL4	I possess self-management skills for fitness
PL5	I possess self-evaluation skills for health
PL6	I have strong social skills
PL7	I am confident in wild/natural survival
PL8	I am capable in handling problems and difficulties
PL9	I am aware of the benefits of sports related to health

Perceived Physical Literacy Inventory (PPLI)

All items are measured on a 5-point [Likert scale](#) (1: strongly disagree to 5: strongly agree).



PPLI

Strengths

- This inventory has holistic coverage of physical literacy (Physical, cognitive, social and affective)
- This inventory is cost affective (low cost and low time to complete)
- This inventory is accessible; it is easy for young adults to understand as the language is straightforward
- This Inventory includes self-reflection

PPLI

Limitations

- Solely based on self-perception
 - o No input from coaches, teachers, or professionals
 - o External evaluation could enhance accuracy, especially for physical competence
- Vague and open-ended questions
 - o Some items may be interpreted differently by participants
 - o Reduces consistency and reliability of responses
- Lacks measurement of physical competence
 - o No assessment of actual physical skills
- Limited coverage of psychological domain
 - o Few questions address motivation, enjoyment, or intrinsic drive
 - o More items needed to reflect long-term engagement in physical activity

Question

- Have you ever played a varsity sport?
 - If so, have you thought about what PA looks like after competitive sport?
 - How did leaving effect your motivation or confidence?

Personal Lens & Rationale for Modifying PL Tool

- Lifelong athlete: Engaged in competitive sport from age 10 to present
- My understanding of physical literacy was shaped by a sport-specific context (volleyball)
- Physical competence focused on sport-specific fundamentals, not broader movement skills
- Knowledge, understanding, and social connections were centered exclusively around sport
- After leaving competitive sport, I experienced sport disengagement and prolonged physical inactivity
- I had to redefine my relationship with physical activity, outside the identity of being an "athlete"
- Currently coaching girls aged 15–20 – a critical age for long-term engagement or dropout



The Problem: Research

- Athletes experience tremendous difficulty transitioning away from their sport career, as demonstrated by high rates of psychological problems such as anxiety and depression (Gainnone et al., 2017).
- Due to their rigorous involvement in sport, and often without sufficient exploration of alternate self-roles, athletes may develop a constricted identity that can limit adaptive responses to life challenges, thereby contributing to psychosocial problems in retirement (Gainnone et al., 2017).
- Literature shows that a strong and exclusive athletic identity may entice athletes to train overly hard i.e., over conformity; and leave them vulnerable when faced with career transitions (Schmid et al., 2024).
- Upon retirement from sport, athletes may experience a variety of emotional (e.g., anxiety, sadness, uncertainty) and psychological (e.g., psychopathology) difficulties throughout the transition (Pare & Tracy., 2025).

The Solution: Research

- Physical literacy is a social justice life skill, which positions youth to have an active role in building a more diverse, inclusive, and equitable society. This reimagined concept of physical literacy not only has the potential to contribute to one's holistic and healthy development but also empowers youth to foster socially just contexts to engage in sport, physical education, and other forms of physical activity (Santos et al., 2022).
- Physical literacy is recognized as a critical developmental concept when seeking to promote healthy youth development. Healthy youth development refers to the process through which individuals develop meaningful physical, emotional, social and cognitive skills that prepare them to face social challenges inherent to adult life (Santos et al., 2022)
- Development of physical literacy may help to promote the self-reflection, critical consciousness, and reflexivity necessary in order to actively confront the social injustices that are pervasive throughout society (e.g., health equity, health disparities, gender stereotyping, racism) (Santos et al., 2022).

My Aim:

Adapt the PL tool to help athletes aged 17-24 better understand physical literacy as a lifelong journey, not just a sport outcome

Goal:

Use the tool to educate and empower young athletes aged 17-24 to stay active beyond competitive sport

Reasoning:

The modifications can be applied in all contexts for young adults; however, my participants were all elite athletes and I was passionate about this lense

Modifications

1. Refined PPLI

- Example: Revise PL6 from “I have strong social skills” to “I work well with others during team sports or physical activities.”
- Improves clarity and relevance within the physical literacy context

2. Added Biographical PL Mapping

- Supports the longitudinal tracking of perceived physical literacy
- Encourages self-awareness and personal reflection over time
- Complements the PPLI by adding depth and context to self-perception

3. Include items that assess perceived motivation and enjoyment

- Enhances representation of the psychological domain of physical literacy
- Helps evaluate an individual's intrinsic drive for lifelong physical activity and engagement

4. Elongate questionnaire

- While it touches on all four domains of physical literacy, greater item depth is needed
- A more comprehensive questionnaire would better capture the complexity of physical literacy



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Modifications Cont.

PPLI

A more comprehensive questionnaire that better captures the complexity of physical literacy.

Modified Perceived Physical Literacy Instrument

Item	Question	Rating
PL 1	I am physically fit for my age and can participate in various physical activities with ease.	
PL 2	I can perform a variety of basic movement skills (e.g., running, jumping, throwing).	
PL 3	I feel confident using my body in different environments (e.g., gym, outdoors).	
PL 4	I regularly engage in physical activity to improve my strength and endurance.	
PL 5	I can adapt my movements based on the demands of different sports or activities.	
PL 6	I know how to pace myself during physical activity to avoid fatigue or injury.	
PL 7	I participate in activities that improve my balance, coordination, and flexibility.	
PL 8	I feel physically prepared to take part in both structured and unstructured play or sport.	
PL 9	I understand how physical activity benefits my long-term health and well-being.	
PL 10	I can evaluate my physical skills and identify ways to improve.	

Modifications Cont.

PPLI

PL 11	I know how to set personal goals for fitness and physical activity.		PL 23	I stay focused during physical activity and push through distractions.	
PL 12	I understand the rules and strategies of the sports or games I play.		PL 24	I value physical activity as part of who I am, not just something I do.	
PL 13	I can explain how physical activity supports mental health.		PL 25	I enjoy participating in physical activities with others. I communicate and cooperate effectively during team-based activities.	
PL 14	I know how to warm up, cool down, and prevent injuries during activity.		PL 26	I show respect to others, regardless of their ability or experience level.	
PL 15	I am aware of how nutrition and hydration affect my performance.		PL 27	I support and encourage teammates during physical activities.	
PL 16	I seek out information to help me stay active and healthy.		PL 28	I can lead or follow appropriately in group physical tasks.	
PL 17	I enjoy being physically active, even when it's challenging.		PL 29	I feel a sense of connection or belonging through physical activity.	
PL 18	I feel motivated to participate in physical activity on my own.		PL 30	I communicate and cooperate effectively during team-based activities.	
PL 19	I feel proud of my physical accomplishments, regardless of how I compare to others.				
PL 20	I am confident in my ability to learn new movement skills.				
PL 21	I feel emotionally better after being physically active.				
PL 22	I continue trying even when I find a physical activity difficult.				

All items are measured on a 5-point [Likert scale](#) (1: strongly disagree to 5: strongly agree).

Scoring Modified PPLI

Total Score Range	PL Level	Description
30–54	Poor	Very limited physical literacy
55–78	Fair	Some aspects of PL are present
79–102	Moderate	Moderate PL
103–126	Good	Strong PL overall
127–150	Excellent	Very high PL

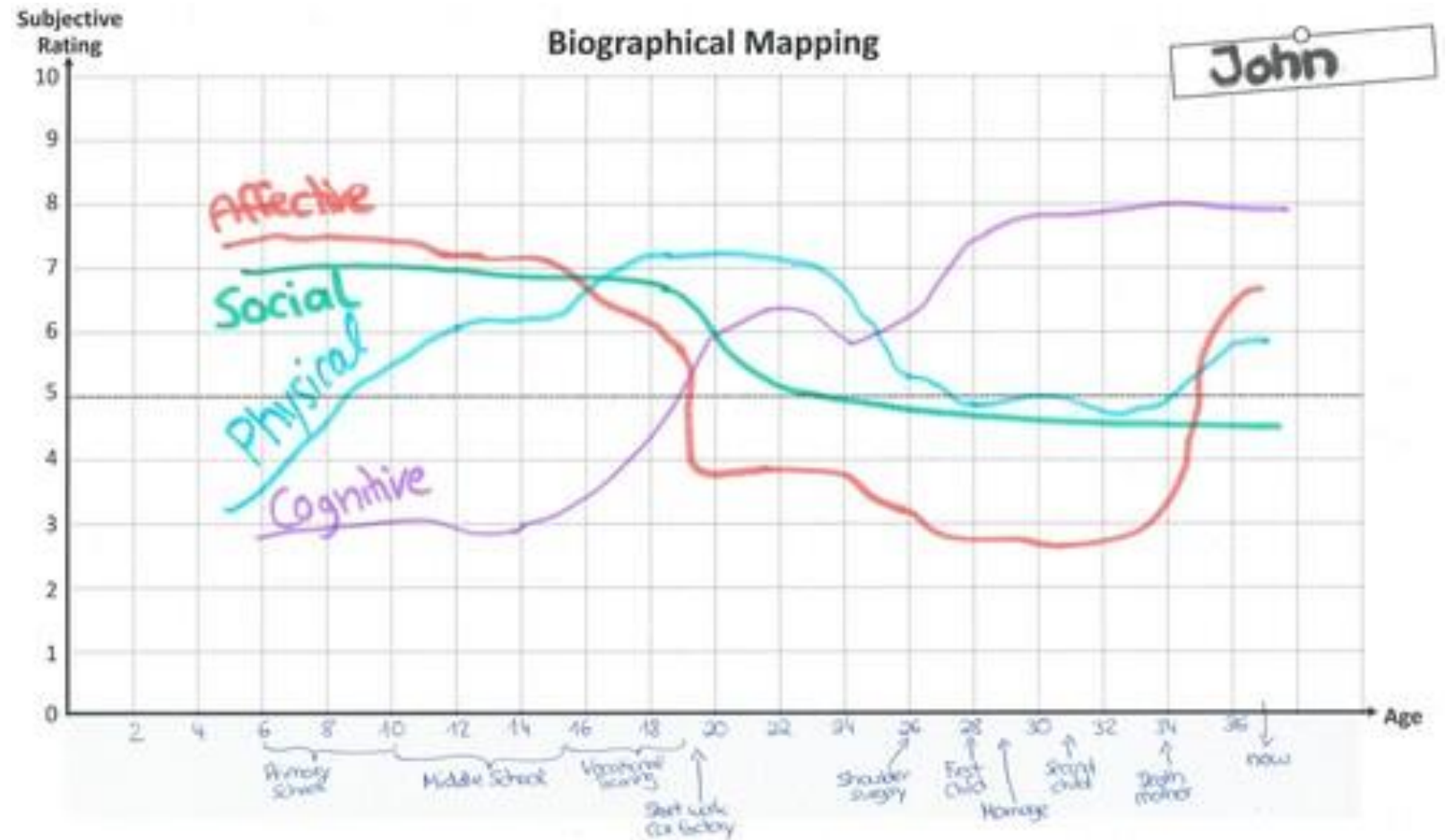
Discussion Question

- Have you ever kept a journal?
 - Do you think it's important to be reflective?
 - Do you think journaling would help or hinder PL development?

Modifications Cont.

Biographical PL Mapping

- To visually and narratively explore an individual's physical activity experiences across their life.
- To identify key moments, influences, and transitions in physical literacy development.
- To support reflection and goal-setting



Biographical PL Mapping

How to use it?

Steps:

1. Set Up Timeline: Draw a horizontal line (birth → present), label life stages.
2. Set Up Subjective Rating: Scale from 1-10, 1 being very weak 10 being very strong)
3. Recall Experiences Together: Note key moments, people, places across life span (e.g., learning skills, teams, injuries, hobbies).
4. Plot Events: Place experiences along the line using symbols, colors, or lines include highs & lows.
5. Plan Forward: Highlight growth areas, set goals, and find ways to stay or get re-engaged.



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J. Carl et al. (2024)

Prompts

PL is a lifelong journey, and we can think of it across four interconnected domains:

- Physical – your movement skills, fitness, and ability to perform activities.
- Cognitive – your understanding of movement, strategies, and how your body works.
- Affective – your motivation, confidence, and enjoyment in being active.
- Social – how you connect, communicate, and collaborate with others through activity.

Early/ present experiences (e.g., playground, PE class, family activities, sports, community involvement)

- Key transitions (e.g., joining a team, injuries, moving schools, life milestones)
- Positive or negative turning points
- Influential people (coaches, teachers, peers, family)
- Changes in motivation or participation

"What activities helped you build movement skills or physical ability?"

"What have you learned about your body and movement over time?"

"What motivates you to be active now?"

"How have relationships (friends, teammates, coaches, family) influenced your experiences?"

Participants



Olivia Nicholls

Age: 18

Volleyball



Anja Erminio

Age: 18

Volleyball



Jenna Guy

Age: 21

Volleyball

Quick Story!

Olivia Nicholls

PPLI

Item	Items	
PL1	I am physically fit, in accordance with my age.	5
PL2	I have a positive attitude and interest in sports	5
PL3	I appreciate myself or others doing sports	5
PL4	I possess self-management skills for fitness	4
PL5	I possess self-evaluation skills for health	4
PL6	I have strong social skills	4
PL7	I am confident in wild/natural survival	3
PL8	I am capable in handling problems and difficulties	4
PL9	I am aware of the benefits of sports related to health	5

- Score: 39/45
- Notes:
 - Confusing
 - Natural survival?
 - Unsure of how this inventory has anything to do with PL

Anja Erminio

PPLI

Original PPLI

Item	Items	
PL1	I am physically fit, in accordance with my age.	4
PL2	I have a positive attitude and interest in sports	4
PL3	I appreciate myself or others doing sports	5
PL4	I possess self-management skills for fitness	4
PL5	I possess self-evaluation skills for health	4
PL6	I have strong social skills	4
PL7	I am confident in wild/natural survival	3
PL8	I am capable in handling problems and difficulties	4
PL9	I am aware of the benefits of sports related to health	5

- Score: 37/45
- Notes:
 - "I felt a bit confused with some of the statements which could have influenced my answers, they were also vague. Therefore, I may have misunderstood the question."

Jenna Guy

PPLI

Original PPLI

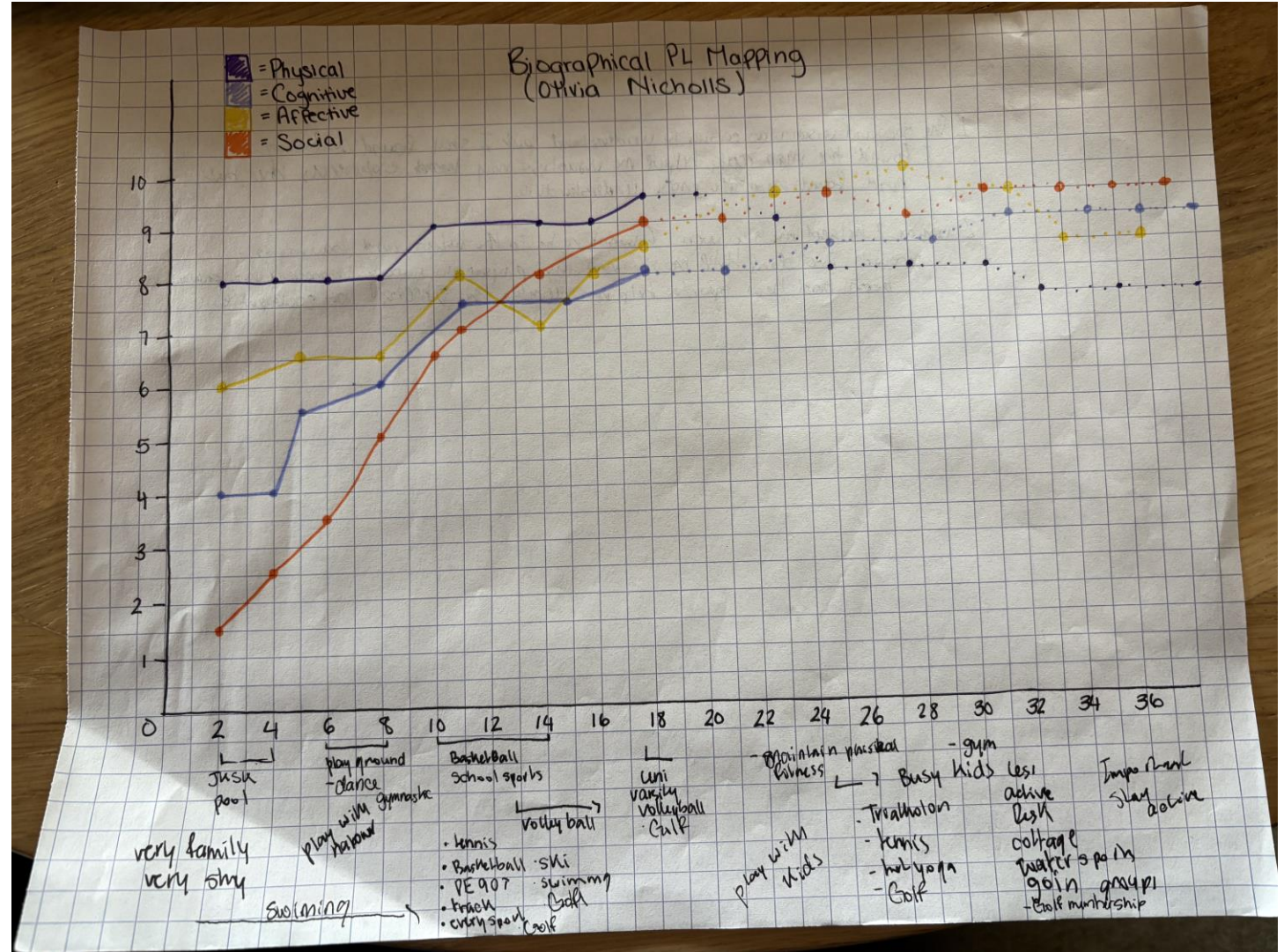
Item	Items	
PL1	I am physically fit, in accordance with my age.	5
PL2	I have a positive attitude and interest in sports	5
PL3	I appreciate myself or others doing sports	5
PL4	I possess self-management skills for fitness	4 3
PL5	I possess self-evaluation skills for health	3 4
PL6	I have strong social skills	4
PL7	I am confident in wild/natural survival	2
PL8	I am capable in handling problems and difficulties	3
PL9	I am aware of the benefits of sports related to health	5

- Score: 36/45
- Notes:
 - "Very general, my answers were more 'extreme' in these cases."
 - "Confused about the wild/ nature question"

Olivia Nicholls

Modified PPLI + Biographical PL Mapping

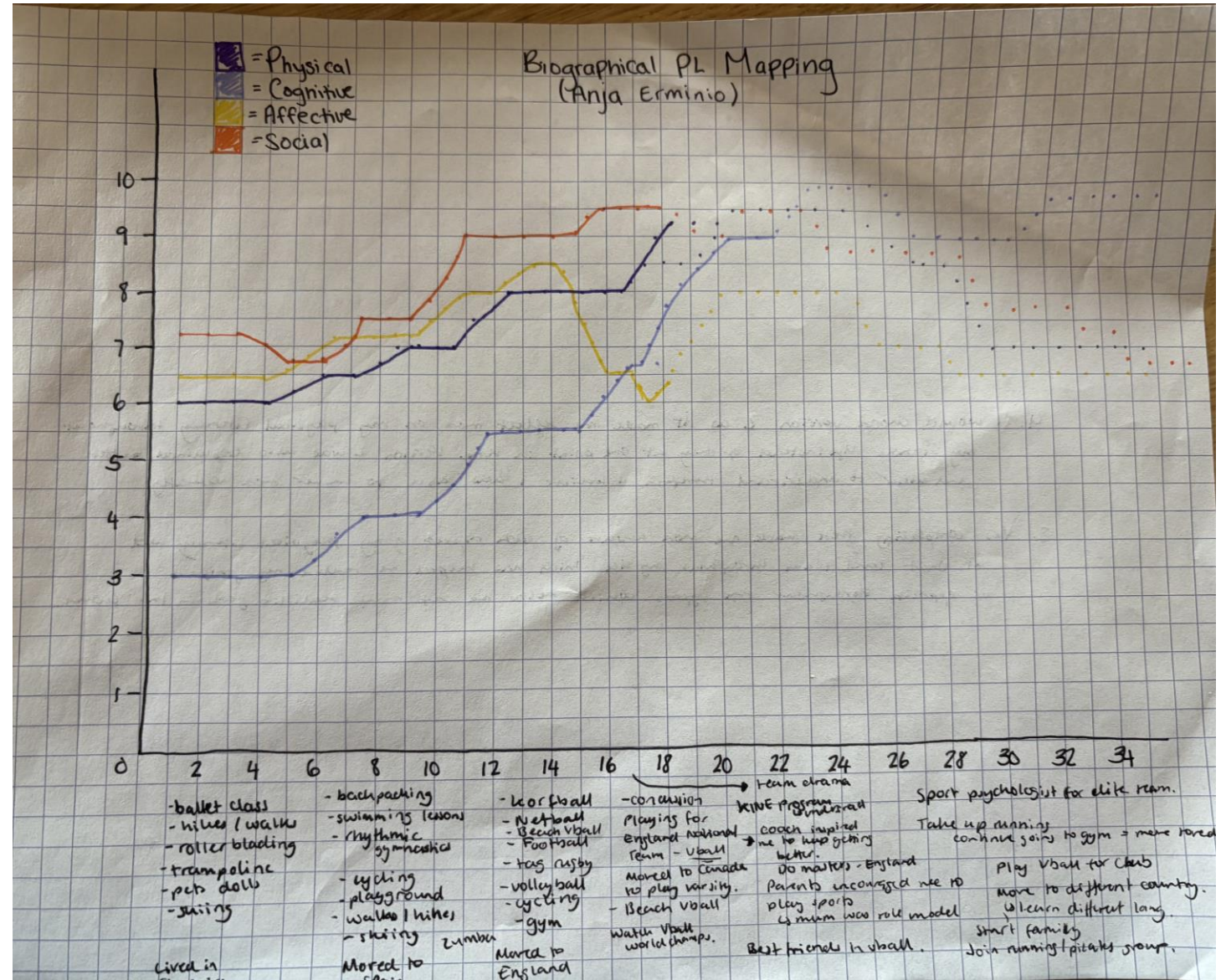
- Score: 130 (Excellent)
- More specific and clear
- Enjoyed the visual representation of PL
- Would like a check-in
- BPLM made her think and reflect
- Better PL awareness



Anja Erminio

Modified PPLI + Biographical PL Mapping

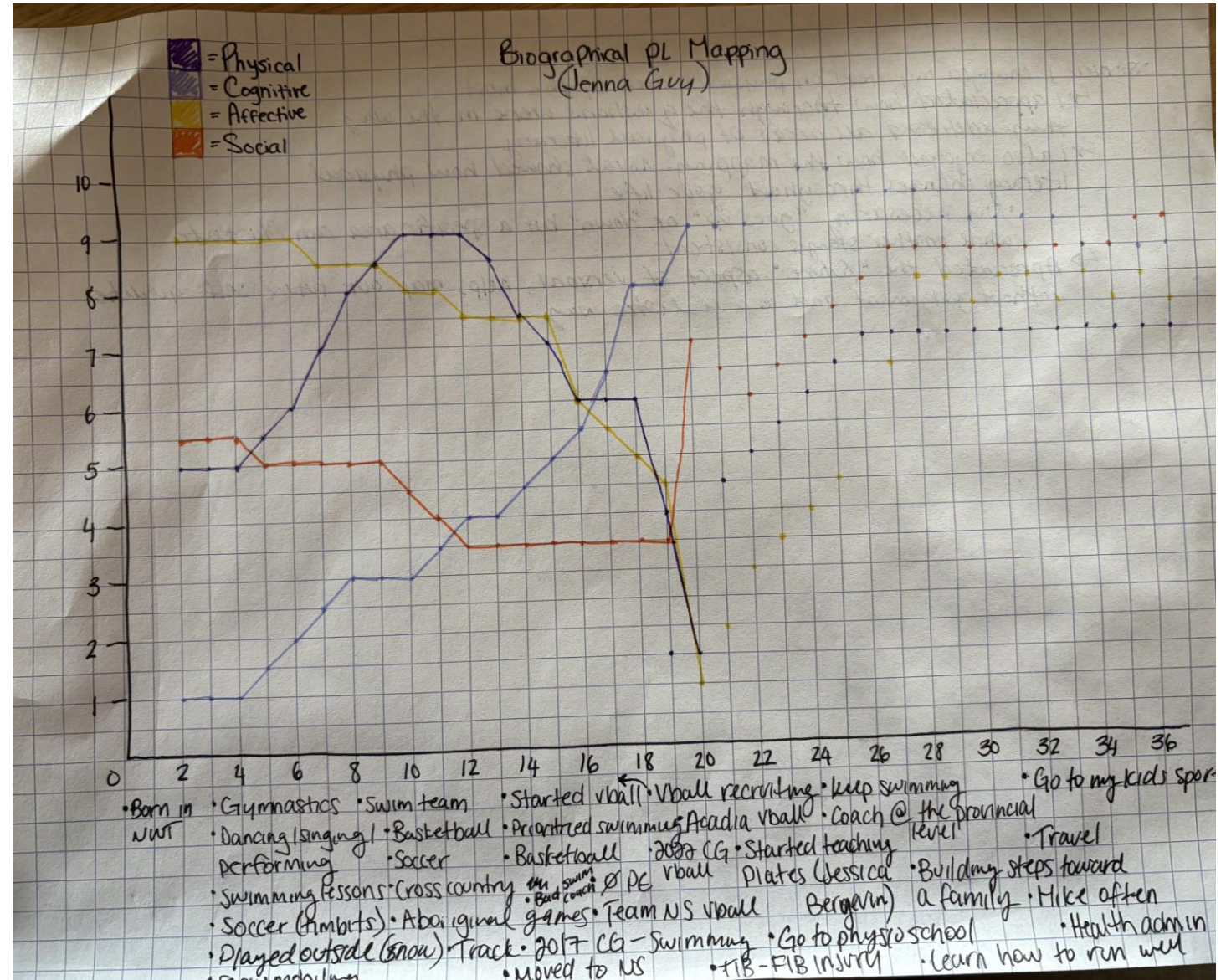
- Score: 132 (Excellent)
- More detailed questions
- Less vague
- Clearer understanding of the question and felt answers were more accurate
- Enjoyed the BPLM a lot
- Had a fun time during the process



Jenna Guy

Modified PPLI + Biographical PL Mapping

- Score: 121 (Good)
- Covered E,M,P,C areas of PL more holistically
- Emphasis in bio-psycho social world view to see better overall picture
- Really enjoyed the BPLM process
- Better PL awareness



Post Pilot Discussion

- Did one version feel easier or more relevant to your experiences? Why?

"The second version was easier to understand but I still found confusing, I found the BPLM really helped me visualize my experiences the best and found that the most understandable"

- Did either version help you realize new strengths or weaknesses in your physical literacy?

"Version 2 helped me see where I want to be in the future and how much growth I've done. It helped me see how my physical (competence) is very strong and has always been a strength of mine. It showed me how sport helped me develop my social skills"

- Do you think your understanding of physical literacy changed after doing both versions? If yes, how and which version?

"Version 2 changed my view on PL the most. I appreciate how thorough the questions were, I enjoyed the mapping visual showing PL changed throughout (my) life. I appreciated the "looking into the future" aspect of the BPLM to see future aspirations without judgement and in a realistic way."

- If you had to choose one version for future use, which would you pick and why?

"I would choose version 2 as it made me reflect more on my physical literacy throughout my whole life instead of only at one point. Version 2 was also explained better and easier to understand therefore I believe I was able to answer more accurately."

- Did completing these instruments make you more aware of your physical literacy journey or goals?

"Yes, completing these made me more aware of each domain of physical literacy and at what level I am or have been throughout my life which has helped me realize my progress throughout the years, which helps me to set more realistic goals in the future."



Modified PPLI

Strengths

- The BPLM served as a form of modified journaling, encouraging deeper personal engagement.
- It prompted athletes to reflect on their past, present, and future—identifying key moments, goals, aspirations, and areas for improvement in their PL journey.
- The revised questionnaire was more detailed, providing a more accurate and comprehensive representation of participants' physical literacy.
- Athletes can now independently complete their own BPLM to track progress and set future milestones.
- After completing the modified PPLI, participants demonstrated a stronger understanding of the four domains of physical literacy.
- The BPLM also provides a visual representation of individual strengths and areas for development, supporting goal setting and future growth.

Modified PPLI

Limitations

- Doesn't assess physical skills
- Didn't score individual domains
- Not done by a professional, so results may be inaccurate (BPLM)
- Time-consuming and 1-on-1, less cost-effective than original PPLI
- Only used on elite athletes: Four domains may be inaccurately high
- Limited tools for young adults and PL so comparison and editing was difficult

Future Designs for Young Adults

- 31% of adults and 80% of adolescents do not meet the recommended levels of physical activity (World Health Organization [WHO], 2024).
 - Need for more PL tools to assess young adults
 - More awareness
 - More programs (recreational, low \$\$\$, mature, fun and creative)
- PE teachers educated on how to use BPLM in school (progress report)
- Developing a physical competence assessment

Thank
you!

References

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