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One-to-one LEGO® SERIOUS PLAY® positive psychology coaching for emerging adults: a single-participant case study

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Abstract

Purpose – This study explores one-to-one LEGO® Serious Play® in positive psychology coaching (1-1 LSP in PPC) as an intervention to help emerging adults (EAs) in higher education develop a growth mindset.
Design/methodology/approach – This is a qualitative single-participant case study of an EA undergraduate student's experience with 1-1 LSP in PPC to help him navigate uncertainty about making a decision that he felt would influence his future career.
Findings – 1-1 LSP in PPC enabled the participant to create a metaphoric representation of how a growth mindset operated for him, promoting self-awareness and reflectivity. The LEGO® model that the participant built during his final session acted as a reminder of the resources and processes he developed during coaching, which helped him navigate future challenges.
Research limitations/implications – This study contributes to the emerging literature on the impact of using LSP as a tool in one-to-one coaching in higher education. The participant's experience demonstrates that 1-1 LSP in PPC may be an effective way to support positive EA development. More research is needed to explore its potential.
Practical implications – This study provides a possible roadmap to incorporate 1-1 LSP in PPC into coaching in higher education as a reflective tool to build a growth mindset in EA students.
Originality/value – Because most undergraduates are EAs navigating the transition from adolescence into adulthood, universities would benefit from adopting developmentally informed coaching practices. 1-1 LSP in PPC may be an effective intervention that provides the structured and psychologically safe environment EAs need to develop lasting personal resources.

Keywords Positive psychology, LEGO® Serious Play®, Growth mindset, Metaphors, Career decision, Clean language, Emerging adulthood, Hands on Thinking™, Narrative coaching, Positive psychology coaching
Paper type Practitioner Paper

Introduction

Emerging adulthood, the final phase of adolescence between a person's late teens and mid-twenties (Arnett, 2000), is a complex and often confusing phase of life characterized by frequent changes in direction and outlook. During this sensitive period of development, emerging adults (EAs) are impacted by their experiences and the afforded opportunities to make meaning of them (Blakemore, 2018; Steinberg, 2014; Wood *et al.*, 2018). It is important

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for EAs to have supportive environments in which they can develop personal resources such as self-awareness, reflectivity and meaning-making (Arnett, 2007; Steinberg, 2014; Wood *et al.*, 2018). Waters and Fivush (2015) argue that as EAs make meaning of their experiences and place in the world, the use of autobiographical memories predicts psychological wellbeing and is important to identity formation. Reflecting about experiences and developing reflections into a coherent narrative can influence how EAs adapt as they transition into adulthood. This study explored the potential of LEGO® Serious Play® in positive psychology coaching (1-1 LSP in PPC) as a developmentally informed intervention to facilitate this type of reflection and growth in EAs in higher education.

Career uncertainty and development

Wood *et al.* (2018) describe emerging adulthood as a phase of development during which people seek to determine who they are and what they want, particularly in their careers. This transition requires the development of self-awareness, reflectivity and a positive mindset, as successes are often followed by setbacks, and EAs shift between adolescent and adult roles while facing frequent decisions about the future (Shulman *et al.*, 2005). As they learn to live independently and support themselves financially, EAs often enter higher education and the workforce with uncertainty, and their mindset and reflectivity influence their career development and success (Kwok, 2018). Wood *et al.* (2018) note that as EAs gain more independence and have fewer support structures at home and in school, they must rely more on their own resources in less stable environments while still developing higher level capacities such as executive functioning and self-awareness. They suggest that EAs with opportunities to develop personal resources in adult-supported, structured environments experience a positive trajectory in their relationships, health, education and careers.

Developing reflectivity

EAs display varying degrees of reflectivity: the ability to examine, assess and learn from their own thoughts, feelings and experiences. Shulman *et al.* (2005) describe three groups of EAs: (1) poorly integrated with low reflectivity and poor pursuit of occupational goals, (2) low in authenticity and reflectivity and intermediate in pursuing occupational goals and (3) authentic and competent with high reflectivity and clear occupational goals. There is evidence that EAs who are not reflective may be receptive to experiences that encourage meaning-making (Blakemore, 2018) and reflective thinking (Steinberg, 2014), and these experiences may increase resilience (Dahl *et al.*, 2018; Seligman, 2012), self-efficacy (Steinberg, 2014), self-sufficiency (Arnett, 2007) and perceived life satisfaction (Arnett, 2007; Steinberg, 2014). Further, reflective exploration in supportive environments is fundamental to positive identity development and growth (Blakemore, 2018; Dahl *et al.*, 2018; Steinberg, 2014; Wood *et al.*, 2018).

A growth mindset

The mindset with which EAs approach this time of uncertainty and development is important. If a person believes their abilities cannot improve through work and effort, they can be said to have a fixed mindset (Dweck and Yeager, 2021). If they believe they can improve through effort, this is a growth mindset. These mindsets can determine a person's level of success. For instance, in evaluating undergraduate music students' internship experiences, Bennett *et al.* (2017) found evidence of a growth mindset when students were reflective about their plans. Although part of professional success will be determined by a student's innate ability or talent, they argue that it will also be impacted, both positively and negatively, by how hard the student works, their self-awareness and their mindset.

Hochanadel and Finamore (2015) found that students with a fixed mindset exerted less effort, while those with a growth mindset displayed more grit. For instance, when a person has a growth mindset about anxiety, they may be able to moderate that anxiety, as such a mindset buffers the relationship between stressful situations and psychological distress (Schroder *et al.*, 2017). Although those with a growth mindset may persist longer, Dweck and Yeager (2021) note that when facing failure, fixed-mindset triggers may activate, reducing effort and undermining performance. The solution may be to develop new strategies rather than redouble effort. Further, the learning from this process can be as valuable as the outcomes (Dweck and Molden, 2017). A growth mindset can be viewed as a strategy and also a resource as it increases resilience in response to challenging situations and self-doubt (Zhao *et al.*, 2008). Developing this mindset may help EAs more successfully navigate education and career development (Kwok, 2018).

Coaching in higher education

Because most undergraduates are EAs navigating the transition into adulthood, higher education institutions would benefit from integrating support systems that enable students to develop resources such as a growth mindset, and coaching may be the answer. Many universities have developed coaching programs. In 2020, the Coaching in Higher Education Consortium (CHEC) identified 938 coaching programs in 874 US colleges and universities (CHEC, 2020). Often housed in student support and academic services, a coach's role differs from an advisor's. While there is some overlap, Sepulveda (2017) identifies distinctions: a coach may have a smaller caseload and meet with students more frequently, and they emphasize helping students develop self-awareness while navigating the process of change. CHEC (2020) defines coaching in higher education as "fostering individualized relationships with students that promote their agency, self-understanding, growth, effectiveness, and persistence within the realm of education and across their lifespan" (slide 21). In a study exploring the perception of academic coaching as distinct from advising, Sepulveda and Birnbaum (2022) found that the title "coach" was often used indiscriminately, suggesting program administrators create clear roles for coaches, offer training and continue to promote research about best practices and benefits. Jones and Smith (2022), in a study examining the impact of mentoring and coaching programs in the UK, also identified the need for role distinction and more research.

Coaching in higher education may be more directive, with coaches facilitating structured opportunities for exploration and reflection, and researchers suggest that higher education coaches take a holistic approach that emphasizes relationship building and personal development to help students learn how to craft their own narratives and success (Robinson, 2015; Sepulveda, 2017). Lefdahl-Davis *et al.* (2018) found that coaching helped university students navigate academic challenges and career uncertainty by increasing their awareness of their values and confidence in goal setting and attainment. Alzen *et al.* (2021) found that undergraduates who participated in coaching experienced improved academic outcomes and were less likely to drop courses. In educational contexts, coaching can be used to deepen self-reflection and awareness (Houchens *et al.*, 2017), which can be particularly beneficial to EAs. Nevertheless, there is a gap in research considering coaching approaches in higher education that address EA students' developmental needs, and there is a call for continued research exploring best practices and interventions (Jones and Smith, 2022; Sepulveda and Birnbaum, 2022).

Metaphoric processing and clean language

On one level, a metaphor is a linguistic device that allows us to transfer meaning from one concept to another, describing something unfamiliar in more familiar terms, thus enabling us

to assimilate new information. Jaynes (1986) argues that they are more fundamental, as processing metaphors is the basis of cognition. Experiences from the real world are represented metaphorically in the "mind-space" of consciousness. Further, time can be spatialized, which cannot occur in the real world. Consequently, metaphors can be ordered temporally, and interconnections between experiences can be detected, which leads to temporal events being ordered into a life narrative that is bound together by themes. New experiences are integrated in a way that is consistent with these major themes, and this determines how people respond to the world.

Consistent with this view of the importance of metaphoric thinking, Grove and Panzer (1989) worked with survivors of abuse and noted that they often described their experiences metaphorically. They adopted the stance of treating these metaphors as real, and they observed that as participants' metaphors changed, the way they experienced the world also changed. This led to the development of clean language questioning, which has three functions: (1) to acknowledge the experiences of clients as they describe them, (2) to focus their attention on an aspect of this description, and (3) to foster self-knowledge (Lawley and Tompkins, 2000). This approach has expanded from its therapeutic origins into coaching (Nehyba and Lawley, 2019). In this study, we utilized this style of questioning.

LEGO® Serious Play® (LSP)

When The Lego Group hired Roos and Victor (2018) to improve how teams develop solutions, they turned to three of humankind's most influential resources: imagination, story making and storytelling. They realized that the LEGO® bricks that stimulate play and creativity in children were the key; LSP was born and has benefited organizations all over the world.

The primary purpose of LSP is to promote strategic thinking. Roos and Victor (2018) found that sessions function best when structured around three phases: action, interaction and transformation. The action phase consists of parallel building in response to a prompt or question. When participants build true to their imaginations, this phase elicits feelings of satisfaction. In the interaction phase, the stories of the builds are shared among the group, resulting in a collective understanding. The transformation phase is a result of their narrative experiences, as participants experience aha and wow moments. Thus, LSP promotes reflection and meaning-making through metaphoric storytelling and gamification.

Gamification can provide opportunities for testing new strategies before they are used in real situations. In a study exploring the effects of a gamified intervention on resilience, Litvin *et al.* (2020) used a general population sample to test the effectiveness of a mobile app designed to teach participants psychological skills through storytelling and gamification. After learning the skills from an avatar, participants entered an adventure story where they applied what they learned by helping a character complete a challenge. Compared to users of the non-gamified app, these users reported increased personal growth and wellbeing and decreased anxiety and attrition.

In a study exploring how gamification may enhance reflection and reflexivity in undergraduate paramedic students, Hayes (2018) used LSP with students in building models of resilience. They shared the stories of their builds and then reflected on the experience. The researchers found that LSP enabled the students to become aware of their thinking processes and the assumptions that underlie them.

LEGO® Serious Play® and emerging adults

Quinn *et al.* (2022) argue that LSP creates a space of psychological safety in which participants have more time to think, which may engage EAs in deeper reflection and meaning-making (Dahl *et al.*, 2018; Steinberg, 2014; Wood *et al.*, 2018). By physicalizing thinking, distinctions that are important become visible (O'Sullivan and Baxter, 2023). During

this process, the coach and coachee mainly focus on a LEGO® model rather than each other, making it more socially comfortable, which is important to EA development as EAs are highly sensitive to perceived social risk and evaluation (Blakemore, 2018; Steinberg, 2014). The psychological safety LSP provides can promote a more accepting awareness of thoughts and deeper levels of thinking while encouraging reflectivity and meaning-making. Further, the ability to observe thoughts and feelings in the LEGO® model, without automatically identifying with them, can encourage psychological flexibility. This can result in cognitive defusion, which is an important component of change (Hayes, 2022).

LEGO® Serious Play® and positive psychology coaching

Positive psychology coaching (PPC) aims to help people discover, develop and use their strengths to achieve their goals (van Zyl *et al.*, 2020). An important element of PPC is that coachees develop their own narratives of who they are and who they want to be, emphasizing the use of strengths to develop skills that promote personal and professional growth (Castiello D'Antonio, 2018; van Zyl *et al.*, 2020). In this way, LSP enables participants to engage in a form of narrative coaching, which Drake (2020) describes as "a mindful, experiential, and holistic approach to helping people shift their stories in order to generate new options and new results" (p. 257). Narrative coaching emphasizes the importance of helping people navigate transitions and gain self-awareness through storytelling by separating from their outer worlds to explore their inner worlds. This may be particularly helpful to EAs as they are navigating significant developmental, educational and professional transitions (Blakemore, 2018). Narrative coaching enables coachees to identify and overcome inner obstacles and then apply what they learned as they make transformative changes to their lived experiences and identities (Drake, 2020). Similarly, LSP enables participants to realize their growth with tangible reminders of their inner narratives and discoveries (Quinn *et al.*, 2022), which is an important aspect of PPC (van Zyl *et al.*, 2020).

Study aims

The use of LSP in 1-1 coaching in higher education is novel. However, researchers have found group LSP in universities to be effective with EA students to promote career readiness and reflective practice (Peabody and Turesky, 2018; Thomson *et al.*, 2018), which may help them develop a growth mindset (O'Sullivan and Baxter, 2023). LSP is a single-session approach, and research suggests that EAs may benefit from more succinct interventions (Alzen *et al.*, 2021; Lefdahl-Davis *et al.*, 2018), and short-term coaching can have long-term positive outcomes (Dryden, 2019), such as taking steps toward an immediate goal while also developing a process for initiating steps toward future goals. These types of interventions invite opportunities for follow-up and reflection, giving them the potential to meet EAs where they are developmentally.

This study aims to expand the work of Quinn *et al.* (2022) who found LSP in 1-1 PPC to be an effective way to create a safe and supportive environment for coachees to engage in deep reflection and develop new ways of thinking. The participants in their study were adults aged in their thirties to fifties. We aim to explore the potential of 1-1 LSP in PPC with EAs in higher education. We focus on illustrating how LSP in PPC can be used to facilitate the process of developing a growth mindset as a resource to promote self-awareness and reflectivity in an EA undergraduate experiencing uncertainty about his future and career.

Methodology

We conducted a single case study because it enabled us to capture the depth of our participant's experiences and what those experiences meant to him, and it is widely used in

practice-based research (Starman, 2013). Data sources consisted of transcripts of the recorded coaching sessions and semi-structured interviews. Ethical approval was obtained from the School of Applied Psychology Research and Ethics Committee at University College Cork, Ireland.

Participant

Jake (pseudonym) was a 21-year-old male undergraduate completing a business degree. He was struggling to choose his final project topic, and he felt his choice would determine his success in the program and his future career. When facing a dilemma with no clear answer, Bab and Boniwell (2016) argue that LSP can be useful, making the situation more understandable and easier to navigate. When describing his dilemma, Jake spoke in a way consistent with having a fixed mindset. The coach (first author) introduced the concept of fixed and growth mindsets, and Jake said he wanted to learn more. Consequently, a principal aim of the sessions was for him to gain an understanding of how these mindsets showed up in his life and how that awareness might help him make his decision.

Process

The coaching encounter comprised of a 30-min introductory taster session followed by a full 60-min session one week later. There were three follow-up interviews: one immediately after the taster session, another one week after the final session and a third 14 months later.

Both authors were trained in LSP in PPC and were experienced in the use of clean language. We utilized a script for a growth mindset LSP in PPC workshop (Bab and Boniwell, 2016) as a guide for the sessions and the LSP Triple E Model, which consists of three phases: Engage, Explore and Expand (Quinn and Bab, 2021). The Engage phase consists of a warm-up where the coachee builds a small model and explores surface concepts. It acts as a route into the exploration of deeper ideas and metaphorical thinking. It establishes a non-threatening space in which the coach can build psychological safety, and it establishes the conditions for flow (Csikszentmihalyi, 2002). In the Explore phase, the coach prompts the coachee to build silently in response to an exploratory question. This allows what Quinn and Bab (2021) term the establishment of the hand–mind connection. As the hands build, they feed the mind with sensory motor information, and this opens creative possibilities. In this way Hands on Thinking™ (Bab and Boniwell, 2016) is faciliated. In the Expand phase, key insights that have emerged develop. This can be expanding inwards, adding layers of possibility to key insights, or outwards, where potential actions are identified.

Adhering to principles of narrative coaching (Drake, 2020), we witnessed Jake's narration and directed questions toward details. Our intention was that what Jake needed to change would emerge as he storyfied his model. In order not to interfere with this process, we used a clean language style of questioning (Lawley and Linder-Pelz, 2016). To facilitate this, the coach not only focused on Jake's words but also on where he directed his gaze, the tone in his voice, and how he manipulated the model in his hands. The purpose of these sessions was to allow Jake to learn about a growth mindset as a resource and to explore how mindsets show up in his life through the experience of developing his own narrative through the metaphors he created with LEGO® bricks.

Results

Taster session: engage

The taster session is an important warm-up because it refamiliarizes participants with LEGO® building, as most have experience from childhood, and it introduces the idea that the

builds have a metaphorical meaning, albeit that only surface ideas are initially explored. This session would not be required for subsequent sessions with the same coachee.

I (first author and coach) added elements of PPC into the process by giving Jake more freedom with his builds and by making it strengths-focused and coachee-led (van Zyl *et al.*, 2020). This session served as an introduction to LSP in PPC. Toward the end, Jake began to explore and reflect on his strengths and how these could help him make decisions.

Build 1. I started with the challenge "Use five bricks to build your favorite animal."

In order to explore the surface qualities, I asked, "When you look at what you built, what do you notice?"

Jake shared his model (Figure 1) metaphorically, in terms of a value that was important to him: "A shark . . . appears dangerous, but it always has a lot of little fish around it. . . . Like a shark . . . I want to be respected. I want people to be comfortable with me . . . this connection is important."

I asked clean language questions throughout to encourage Jake's metaphorical thinking (Lawley and Tompkins, 2000, p. 282): "Is there anything else about that shark?"

Jake explored further as he slowly moved the model around in his hands: "a shark has a weakness that paralyzes him when you touch his nose . . . a shark can be managed . . . I need to know when to manage but also when to let others lead."

Build 2. Next, I asked Jake to remove two pieces. My intent was to reinforce the idea that the build was metaphorical in nature and to draw his concentration to the core of the metaphor. He again turned the model in his hands, moving his gaze to different parts. After contemplation, he chose to keep the fin and tail because "the essence of the shark is still there."

I asked, "What kind of essence is still there?"

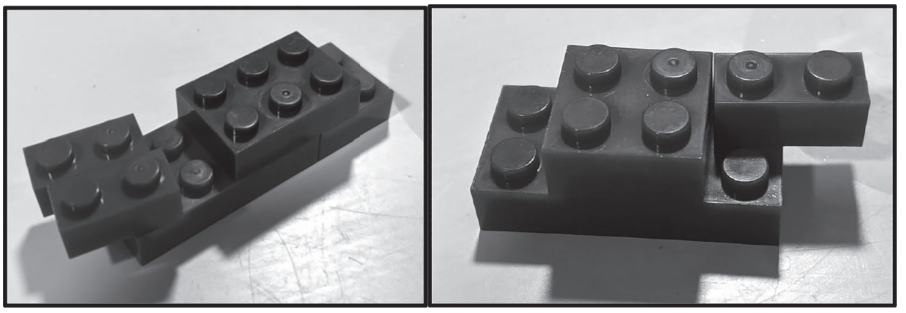
He replied, "the shark can travel in his network . . . and make its impression on others."

In this build, Jake used metaphorical thinking to explore his strengths and values and what leadership meant to him.

Build 3. Adapting a PPC approach, I asked Jake to incorporate some personal resources: "Add five more bricks to represent yourself and your strengths."

Examining the available bricks, Jake started building slowly, taking moments to hold his model away from him to observe it as he made adjustments. After a couple of minutes, he started building more quickly and then sat back to indicate he had finished. This is a process Jake often repeated throughout the sessions as he generated builds that had metaphorical meaning for him.

I asked, "When you look at what you built, what do you notice?"



Build 1 model **Build 2 model**

Source(s): Created by Maurissa Moore

Figure 1.
Taster session adapted Builds 1 and 2

Jake described how the body parts represented his strengths in terms of his values: "The shoulders are broad . . . it's important to have a stable place for my head and my thoughts . . . The head is high because I want to be smart, but it's not too high, because I don't want to be arrogant."

As he spoke, he picked up the model and held it at different angles as he developed and verbalized his thoughts and reflected on himself and who he would like to be.

Build 4. Jake asked if he could remove pieces. In line with narrative coaching and PPC, I told him it was his model, and he could adjust it and interpret it as he liked. This would allow Jake to reflect on the essentials of his strengths. After removing pieces, Jake shared more values: "the legs are also stable but simple. They're efficient, and that is important to me."

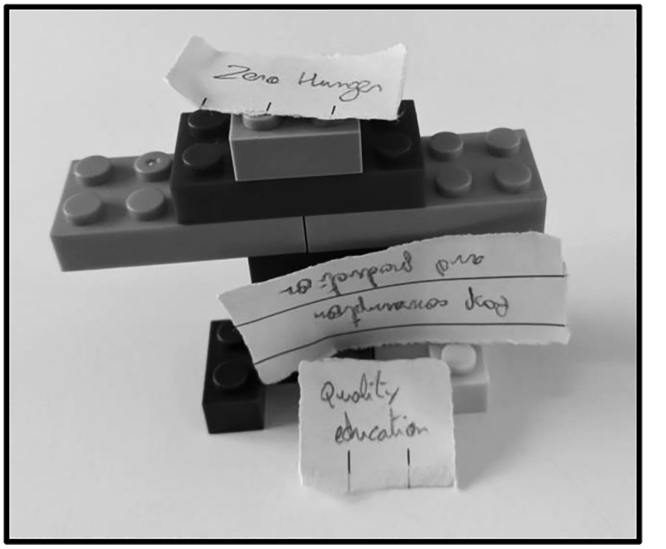
Build 5. Having identified his strengths, an important principle of PPC (van Nieuwerburgh and Biswas-Diener, 2020), I introduced his goal into the process.

Jake had written possible project topics on small slips of paper, and I presented the challenge: "Place the topics on the model to show how you might use your strengths in relation to each topic. You do not need to place them all unless you want to."

Jake placed three of the five topics on the model (Figure 2): one on the head, another at its feet, and one he propped against the body. When I asked, "What do you notice about your model?" he explained how he would use his strengths for each topic and how they related to his values. For example, the topic he placed on the head of the model felt more challenging to him and would require logic and problem solving, while the topic that he placed near the body was something that he felt more emotionally attached to and believed it required more heart and intuition.

I ended with a question to promote reflection: "In thinking about this session, what have you learned about yourself?"

Jake demonstrated new awareness, saying that he knew more about what was important to him, and he felt more prepared to make his decision. I invited him to take a photo of the model so that he would have a visible reminder of the thinking he had done.



Source(s): Created by Maurissa Moore

Figure 2.
Taster session adapted final build

Taster session feedback

Afterward, I asked Jake for feedback. He said it was helpful because it gave him a "framework" for his thoughts: "It gives you time to think and speak and put words that are in your brain onto a path, onto something you can see, and because it was step-by-step, it helped me see the way on this path." This is consistent with the process of providing time to think (Quinn *et al.*, 2022).

He then used the metaphor of an air traffic controller to describe how he felt safe to explore his thoughts: "In your brain you go everywhere and think of many things at once; it's easy to go all over the place … This was like one of those people who guide the airplanes at the airport but for my brain."

LSP seemed to create a structured and psychologically safe space (Quinn *et al.*, 2022) for Jake to reflect and gain new self-awareness. Using a PPC approach to facilitate the process, I was able to coach Jake in a way that enabled him to take the lead in his own meaning-making process, as seen in session extracts.

Growth mindset session: explore and expand

One week after the taster session, I facilitated a 60-min session to introduce the concepts of a fixed and a growth mindset and to provide Jake with the space to explore a growth mindset as a resource. This constituted the Explore and Expand phases of the Triple E model (Quinn and Bab, 2021), albeit that Jake had begun to explore in the Engage phase session. We started with a discussion of mindsets and the role they play in how we think about our abilities. Following PPC principles, I reminded Jake of the topic of the previous session and invited him to explore whatever topic felt relevant to him during this session, giving him the space to focus on what was most important to him and to create his own narrative and meaning.

Build 1. To introduce thinking about mindset in the context of his own experience, I asked Jake to "Build a model of something that is challenging in your life, like a goal you have tried to achieve but feel you've failed at, maybe once or maybe even several times."

When he had finished, I asked, "When you look at what you built, what do you notice?"

Jake said his model represented his house and feelings of "impossibility" after his parents' divorce (Figure 3). He described his goal as finding his place within his home and wanting to be "stable" while also being "a kid who can make mistakes." Without prompting, he reshaped his narrative and what the model meant to him in terms of his professional goals, demonstrating his development as an EA transitioning from adolescence into adulthood as he contemplated himself in different roles and continued to explore his values of stability and connection.

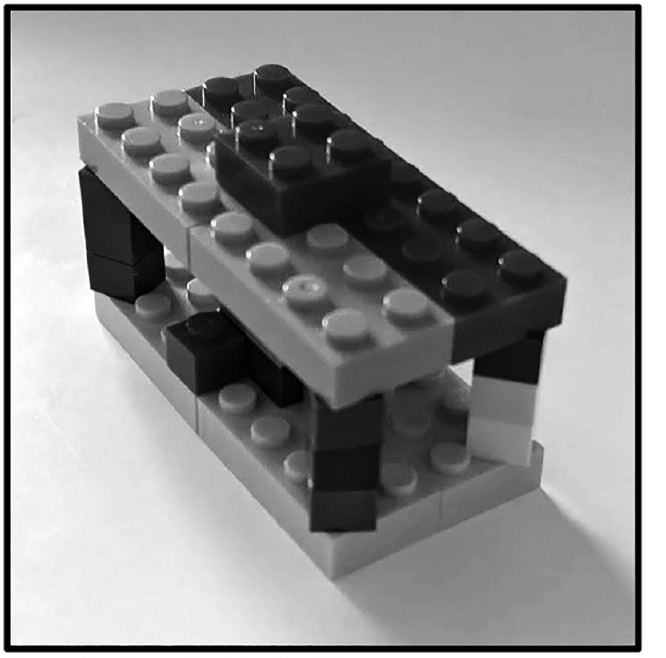
I introduced three red bricks: "These red bricks represent a fixed mindset. Place all or some of them on your model in places where a fixed mindset might be holding you back or creating difficulties for you."

Another value emerged, as he shared how the red bricks represented his "black and white" thinking around being able to advance while also staying connected to employees in positions below his; he felt he could not do both. He then connected back to his original interpretation of the build as being his home and explained that he thought that was the "wrong way to think" but he "can't help to think it."

Build 2. The next build began with the challenge, "Build something in your life that was really hard for you, but now it's easy."

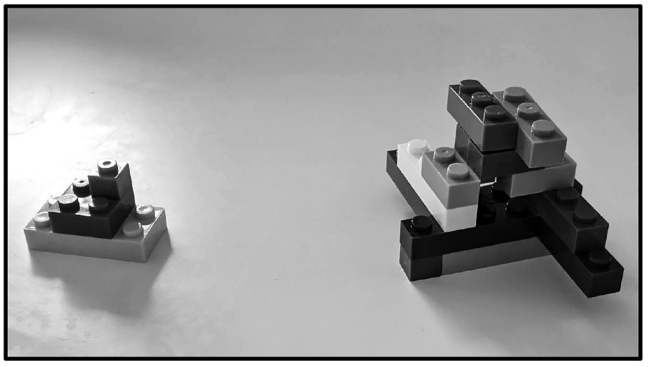
Jake built two separate models, each representing "an attitude" he "learned to have" (Figure 4): "I learned I can change things when they go wrong by changing my attitude … I suppose this is a growth mindset … I just didn't have the words for this attitude."

When asked "Is there anything else about that attitude?" he described the smaller model with self-reflection and growth: "It's not always black and white … I realized I had my network."



Source(s): Created by Maurissa Moore

Figure 3.
Growth mindset session Build 1: fixed mindset



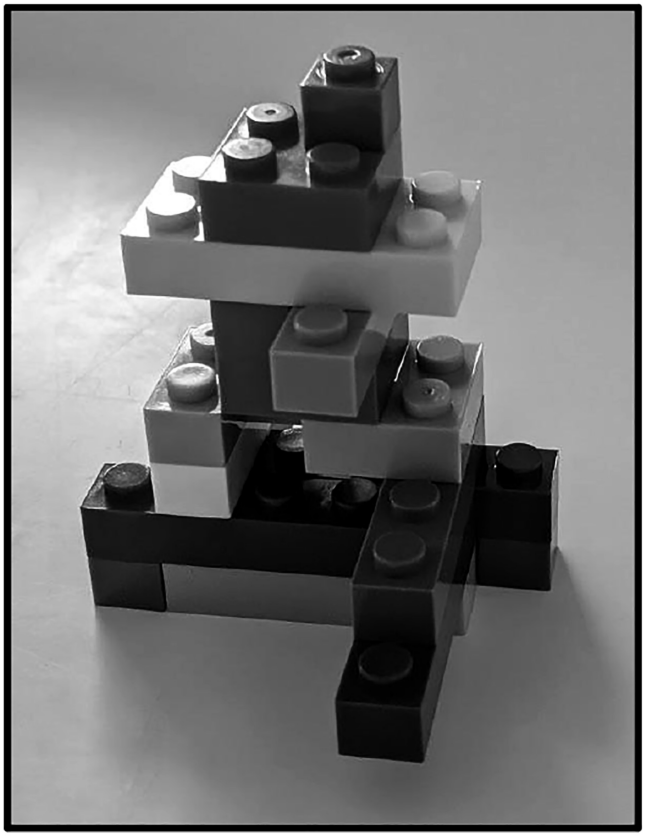
Source(s): Created by Maurissa Moore

Figure 4.
Growth mindset session Build 2: growth mindset

Developing his metaphors, he said the larger model represented his attitude as a "jetpack."

When asked, "What kind of jetpack is that jetpack?" he said that it is a jetpack that enables him to "think and move."

Using connectors, I asked Jake to link the points of growth mindset to those of the fixed mindset. He responded by connecting the models together (Figure 5), and his narrative developed; he said the model was a representation of himself in his "skyrocket" with a "growth-mindset jetpack. . . . [that] allows my skyrocket to go further . . . because I can control it."



Source(s): Created by Maurissa Moore

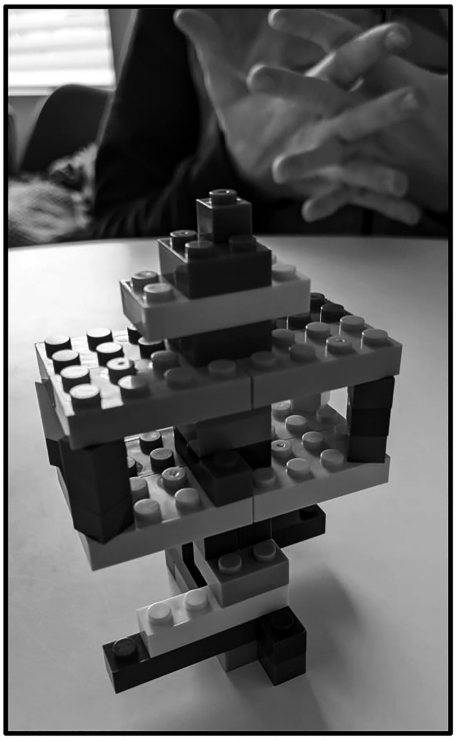
Figure 5.
Growth mindset session Build 2: adapted model after coach summary

I then asked, "Knowing that now, what does that mean to you?" and he responded in ways that demonstrated self-discovery and awareness through reflective thinking: "I now see how I evolved. . . . I want to switch this fixed mindset that blocked me . . . I know it's a part of me . . . and I know [I] have the strength and experience to improve."

Build 3. For the final build, to expand outwards Jake's inner insights, I wanted to introduce the idea of using a growth mindset as a resource. I presented the challenge: "Use the connectors to explore the question – how might your growth mindset help you overcome your present challenge?"

Jake attached the models without the connectors to create one model (Figure 6). Keeping the session coachee-led, I did not interfere with his choice to not use the connectors. Jake's response demonstrated that he was expanding his narrative by adding layers to his understanding: "My past gives me experience to improve . . . I need my past to be aware of when I have a fixed mindset so I can change it."

When asked "Knowing this, what does it mean to you?" Jake expanded his metaphor from his previous build: "I can use my skyrocket to go to the moon or a new planet . . . my jetpack is my growth mindset, and it carries my past . . . my past will always be useful in this new place."



Source(s): Created by Maurissa Moore

Figure 6.
Growth mindset session Build 3: connecting the models

I again prompted him to expand outwards: "What is something that would have to happen to be able to use your growth mindset in relation to your goals?" He responded in terms of values that he identified in the taster session, illustrating how the images of the builds and what they represent stay with a person: "The fuel for the skyrocket is the energy I have because of my connections and my network . . . it is what I need to grow in new situations."

When asked "Thinking about everything you've explored today, what do you know now?" Jake shared self-discovery and reflection: "Thanks to what I learned in my past, I know I need my jetpack; that is my growth mindset. . . . Next time I have an issue or new step in my life . . . I know the kind of jetpack I need and how to take this step on my skyrocket," demonstrating metaphorical meaning-making and reflective thinking, which is leading to taking action.

I invited Jake to keep the model, which he did so he could "keep the space in [his] brain to remember this session and this new energy." It would be important not to over-interpret what Jake is saying; however, his description would not be inconsistent with Jaynes' (1986) ideas of the "mind-space" where we locate visual metaphors of the real world.

One-week follow-up feedback from Jake

One week later, I interviewed Jake about his experience. Since then, he had continued to expand on his insights. He expressed this with a metaphor: "It's like a video game. If you make a mistake, you can start again. You have a lot of tools, and you can use what works for you and what you like. This was like that but with words."

He said keeping the model was important: "I opened my heart and put things from my past into words . . . and now this [model] is like a tool for me . . . it's something that is concrete . . . something I can keep for my improvement."

He shared how he moves the model depending on what he needs. For example, during a "difficult" work meeting, he said he placed the model on his desk to remind him of what he learned about himself during the growth mindset session.

Jake also said he gained a new reflective process and personal resources he could use beyond the session: "It gave me a framework to explore ways to improve and think about things in a different way . . . it feels like I'm more mature now . . . it can be difficult to pass through a fixed mindset, but at least I know who I am and why I am like that . . . I now have a way to talk about it and notice it so I can change it."

Fourteen-month follow-up feedback from Jake

Fourteen months later, I asked Jake about his memories of the LEGO® PPC sessions. While the coaching sessions and first follow-up were conducted in person, this second follow-up was conducted online. We were both in our home offices.

Talking about how he now understands a growth mindset, Jake said, "It's not just about skills . . . it's about how to always improve and challenge yourself . . . it's how you are to other people and that they can see that you are always trying to improve." This is consistent with Dweek and Yaeger's (2021) view of a growth mindset.

He described the session as "intense" and remembers feeling "mutual confidence" with me, the coach. The process helped him think about his past and feel "in a comfortable zone about it . . . I wasn't shy, and I wasn't thinking about what I was saying . . . I was saying a lot of things about my feelings for the first time . . . It was a good thing for me to do." This would be consistent with a description of psychological safety (Quinn and Bab, 2021).

He remembers at the beginning he built "something small and random," which then grew into something more meaningful for him: "it was kind of like a flow, you just follow a flow . . . you are doing things without even thinking because you are just like playing with something in your hands." Here Jake illustrates one of the functions of the Engage phase, allowing for flow (Quinn and Bab, 2021), as well as hands on thinking™ (Bab and Boniwell, 2016).

"The LEGO® session gave me a process and a methodology to find the best way to do something." The process allowed him to "hold abstract ideas in my hands," and it made what was in his mind "visible." As a result, he could "turn abstract big ideas and problems into outcomes, into solutions." Jake seems to illustrate a function of metaphoric thinking, describing something that was initially too difficult to conceptualize by using the familiar and locating this in the mind-space (Jaynes, 1986).

Although he has strong memories of the process and what he built, he does not remember the decision he had to resolve, which was the original purpose of the session: "I remember the process well and some of the questions and definitely not what I decided to do . . . I understand that wasn't as important as the process." For Jake, what was important was the expansion inwards, adding layers of meaning to his models, rather than the outward expansion of taking action.

When I asked Jake if he still had the model, with a smile and without hesitation, he reached for it, as he kept it on his desk at home, and he held it up for me to see:

> When I have my own office one day, I will keep it there . . . maybe next to my name on my desk in gold . . . I will look at it as a reminder of a hard moment and that I could dig into it . . . it is a reminder of this process . . . It is helpful to look at when I don't want to do something because it is hard . . . it reminds me that I can, and I have a process . . . you gave me a tool.

A growth mindset is both an unobservable cognitive process and a resource; the LEGO® model allowed Jake to physicalize it, which may allow him to access it more easily when needed.

At the time of the final interview, Jake was finishing an internship and contemplating his future, a prime task for an EA:

> I have to choose where I want to go. It's time to think about a permanent work contract in my company now or another one . . . I can look at it [the build] and go back into the process, even now that I am doing it on my own . . . to be honest, that can be difficult if you [the coach] are not here to ask questions. . . . but it will definitely help me more than if I didn't have it.

Discussion

This study illustrates the potential benefits of using LSP in 1-1 PPC with an EA in higher education. This novel approach enabled Jake to creatively use LEGO® to reflect on his experiences and make new meaning while also building the resource and a process of a growth mindset. The 1-1 session gave Jake space to adapt the process to suit his needs as he developed his metaphors and narrative. In addition to promoting self-reflection and awareness, such exploration can help improve resilience and wellbeing (Dahl *et al.*, 2018; Seligman, 2012), which can be particularly beneficial to EAs as they navigate a sensitive period of development and transition (Blakemore, 2018; Steinberg, 2014). It also enabled Jake to reflect in a safe and structured environment. In his feedback, he said that he felt "comfortable" during the process and "more mature" after. This aligns with EAs needing structured environments supported by adults to prompt reflective thinking and positive development (Arnett, 2007; Steinberg, 2014; Wood *et al.*, 2018) and that LSP can provide this type of psychologically safe space in coaching (Quinn *et al.*, 2022).

Jake came into the first coaching session needing to make a decision. Although that decision faded in his memory, he now has a growth mindset process that he uses as a resource, and he has a visual reminder of that resource and process. This is an example of expanding inwards, which allowed him to unpack what a growth mindset meant for him. As an invisible mental schema, Jake illustrates that LSP in PPC can make what is invisible visible and possibly establish it as a more accessible resource. LEGO® is a tool to aid thinking, a means to an end, rather than an end in itself. Consequently, its use may not be suitable in every coaching context (Passmore *et al.*, 2022). Our findings suggest that it may be beneficial to coaching EAs in higher education. Jake said that the sessions gave him "a framework" to "improve and think about things" and that the decisions he had made afterward (expanding outwards) "wasn't as important as the process"; it was the decision-making "tool" or process that he developed that was more memorable and valuable to him. This aligns with coaching approaches in higher education that aim to help students build personal resources and processes they can use in current and future decision-making and goal-setting contexts (Robinson, 2015; Sepulveda, 2017). This is also consistent with PPC (van Nieuwerburgh and Biswas-Diener, 2020), which is the development of resources so the coachee can more easily achieve current and future goals through being resourced. Jake illustrated the dual function of a growth mindset as being both a resource and a process when he recounted how he placed the model within view during a difficult meeting, and then, more than a year later, he still had it in sight for this purpose. The model acts as a reminder that he possessed the resource of a growth mindset and also how it operates within him. This type of learning is important for Jake as an EA preparing for the world of work (Wood *et al.*, 2018).

Jake seemed to find it easy to think metaphorically about himself, and he described how this led to self-discovery. A plausible explanation is that by focusing on the bricks, he could place his thoughts onto something tangible, taking his focus away from the coach and into his own mind-space (Jaynes, 1986), giving him time to think (Quinn *et al.*, 2022). A feature of this type of coaching is silence. Because the coachee had something to do with his hands, the

intentional silence did not become awkward, which enabled the coachee to comfortably capitalize on the silence by engaging in deeper reflection and more thoughtful responses.

While building, Jake constructed meaning from the bricks. This provided an opportunity for him to observe his embodied thinking in action, as he used not only his mind but also his body to navigate and develop his thoughts and narrative. Consequently, the coach could see where Jake was placing meaning onto the bricks, which provided information that helped the coach know where to direct Jake's attention through questioning. A clean language style of questioning (Nehyba and Lawley, 2019) allowed Jake to develop his metaphors. It was also important that the coach gave Jake the space to complete his builds without asking questions. This allowed for the possibility of mini-moments of mindful building as he focused his attention on what his fingers were doing, as Jake described in the follow-up interview. As he became immersed, a balance emerged between his skills in using bricks metaphorically and the challenge of building to the question, establishing the conditions for short periods of flow (Csikszentmihalyi, 2002).

Furthermore, for Jake, the meaning was in more than just the LEGO® models themselves; it was in the way he constructed them and in how he moved them around in space with his hands to view them from different angles as he spoke about and noticed different aspects of them (see Figure 6). This is consistent with Bab and Boniwell's (2016) notion of hands on thinking™. The models are not static representations but are dynamic, more fully coming to life and meaning in the coachee's hands. There they can be oriented and reoriented spontaneously as the coachee is guided by intuition. Through this process, coachees can see different views of what they have built, and from these differing perspectives, new meanings can emerge. Jake said this aided his thinking during a time in his life when reflection and meaning-making were important to his identity development and wellbeing.

Because most undergraduates are EAs, universities could benefit from adopting coaching practices that promote the development of resources such as a growth mindset. This case study demonstrates that LSP in 1-1 PPC may be an effective and accessible approach that provides the structured and safe environment EAs need to develop the self-awareness, reflection and decision-making processes that are crucial to positive development during this sensitive stage of life.

Limitations and future directions

Jakes's experience demonstrates that LSP in 1-1 PPC may be an effective way to support positive EA development in higher education. The focus of growth mindset intervention research is in which contexts these interventions work most effectively (Yeager and Dweck, 2020). Given the affordances of working with LEGO®, such as more time to think, psychological safety and a hands on thinking™ approach that can result in deeper and new ways of thinking, an important question arises: compared to other types of growth mindset interventions and current coaching practices, does this approach result in stronger and more long-lasting effects? However, before approaching randomized control trials, and given that this line of research is only emerging, it may be wise to conduct further case studies across differing contexts to develop a larger corpus. As this is only one case study of an innovative approach, it would need to be validated through further research. In addition, as with all self-reported data, we do need to be cautious about drawing generalizable conclusions until such interventions are evaluated using experimental designs. Nevertheless, this study does represent the beginnings of this process.

This coaching intervention allowed us to prototype a process whereby an EA could develop growth mindset thinking as a resource that promotes reflectivity and can be accessed after the coaching process, which aligns with current principals in coaching programs in universities (CHEC, 2020; Sepulveda, 2017). Such prototypes can contribute to the future

development and training needs of coaches in higher education. This case study was designed to test the feasibility of this approach, and our results suggest that 1-1 LSP in PPC is a workable intervention for EAs in higher education. Following the call for more research regarding best practices in coaching in higher education (Jones and Smith, 2022; Sepulveda and Birnbaum, 2022), this case study provides a promising prototype that integrates 1-1 LSP in PPC in higher education as a reflective tool to build a growth mindset in EA students by incorporating a more succinct, developmentally informed approach.

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