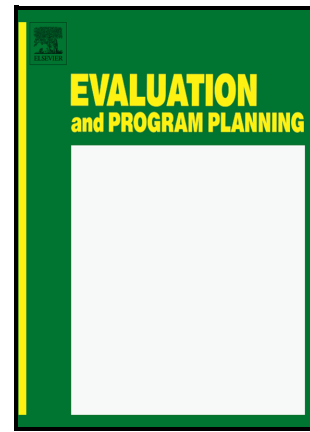# Journal Pre-proof

A realist evaluation of a multi-component program with disengaged studentsRUNNING HEAD: REALIST EVALUATION

Emily C. Owen, Camilla J. Knight, Denise M. Hill

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A realist evaluation of a multi-component program with disengaged students

RUNNING HEAD: REALIST EVALUATION

Emily C. Owen[1,2], Camilla J. Knight[1,3], & Denise M. Hill[1]

[1]Department of Sport and Exercise Science, Swansea University,

[2] Department of Primary Care and Population Health, University College London,

[3]Department of Physical Education and Sport, University of Agder.

Correspondence:

Dr Emily C. Owen; UCL Research Department of Primary Care & Population Health; Royal

Free Campus; Hampstead, London; NW3 2PY.

Emily.owen@ucl.ac.uk

Abstract

Periods spent in the absence of education, employment, or training (NEET) are associated

with adverse psychological wellbeing, social marginalisation, and premature mortality.

Implementing effective programs to re-engage young people who are classified, or are at risk

of becoming NEET, is of importance to these individuals, family, and society. We conducted

a realist evaluation to understand how, and under which circumstances a multi-component

program may impact the engagement, behavioural, and psychosocial outcomes of disengaged

students at risk of becoming NEET. During the early project phase, a narrative review of the

literature and key stakeholder discussions were conducted to develop our initial program

theories regarding how the program was expected to achieve its outcomes. Participant

observations, video footage, and forty-two interviews were then conducted with teachers and

students to form context-mechanism-outcome configurations and to refine these theories.

Overall, refined program theories relating to positions of authority, the power of collective

experience, exploration of possible life directions, constructivist pedagogies and active

learning, and the endorsement of an ethic of caring and strengths-based orientation were developed. Collectively, our findings provide a detailed understanding of the architecture of programs that may benefit disengaged students and help inform the design of future programs aimed at reducing disaffection.

Keywords: Adolescents, Multi-Component, Intervention, Realist Evaluation, Mentoring, Physical Activity, Sport, Work-Based Placements

Abbreviations:

RE, realist evaluation; CMOC, context-mechanism-outcome configuration; IPT, initial programme theory.

Young people between 16-24 years who have not participated in any form of education, employment, or training for a minimum six-month period are classified as 'NEET' (i.e., not in education, employment, or training). Data from 2021 show that approximately 14,000 (14%) of Welsh 16-18-year-olds and 38,000 (16%) of 19-24-year-olds were classified as NEET (Statistics for Wales, 2023). These statistics are concerning, because when young people have an absence of education, employment, or training it can result in adverse psychosocial outcomes, social marginalisation, criminal behaviour, and premature mortality (Bynner & Parsons, 2002). There are also a range of social and economic impacts including, higher public health expenditure (Levin & Belfield, 2007). Given such consequences, re-

engaging young people who are NEET[1], and preventing young people becoming NEET, is a key UK government priority (Public Health England, 2014).

Several programs have been implemented with disengaged young people, which aim to enhance engagement, behavioural, and psychosocial outcomes. Such programs have included, one-to-one mentoring (e.g., Raposa et al. 2019), classroom-based learning (e.g., Ciocanel et al. 2017), work-based placements (e.g., Chen, 2011), and sport/physical activity related programs (e.g., Armour & Duncombe, 2012). Yet, current evidence regarding program effectiveness is limited in quality and it remains unclear what works for this population, and under which contextual circumstances. For instance, a systematic review (Prevatt & Kelly, 2003) and meta-analysis (Mawn et al. 2017) found inconsistencies in the overall impact of different programs for disengaged young people on various outcomes, with each demonstrating strengths and limitations.

To compensate for the limitations of different types of programs, it has been suggested that intensive, multi-component approaches which expose young people to various resources and options, may be the most promising for facilitating re-engagement (Prevatt & Kelly, 2003). Particularly, it is perceived that thoughtfully designed multi-component programs that combine one-to-one mentoring, classroom-based learning, work-based placements, and sport/physical activity may be useful (Rajasekaran & Reyes, 2019). Unfortunately, there are limited evaluations of such multi-component programs (Mawn et al. 2017).

To address this critical knowledge gap, the aim of the current study was to evaluate how, and under which circumstances, a multi-component program may impact the engagement, behavioural, and psychosocial outcomes of disengaged students. The program

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[1] Young people who are classified, or are at risk of becoming classified, as NEET will hereafter be described collectively as disengaged.

being evaluated was TACKLE, which is a school-based program developed by the charitable foundation of a professional rugby club based in Wales. It combines one-to-one mentoring, classroom-based learning, work-based placements, and sport. It was designed to enhance disengaged students' engagement and behaviour in core subject lessons (i.e., English, Mathematics, and Science), and reduce psychosocial challenges (e.g., low levels of self-esteem, high levels of emotional distress, and poor overall life satisfaction). Through this evaluation, the intent was to identify: 1) How, why, and in which contexts TACKLE may impact students' engagement, behaviour, and psychosocial outcomes? 2) What the underpinning mechanisms are that explain the impact (if any) of TACKLE?

Method

Methodology and Philosophical Underpinnings

This study used a realist evaluation (RE) approach. RE is a form of theory driven evaluation that aims to understand the causal pathways through which complex social programs work (Pawson & Tilley, 1997). The approach begins through the development of an initial program theory/theories (IPTs), which seek to explain how the program is expected to achieve its outcomes (Mukumbang et al. 2019). The IPTs, causal explanations, and anticipated interactions between context, mechanisms, and outcomes are then tested throughout the evaluation using a triangulation of data sources and methods (Pawson & Tilley, 1997). Throughout data collection and analysis, IPTs are refuted, modified, and refined.

RE is underpinned by a realist philosophy of science (Pawson & Tilley, 1997). It is methodologically driven, focused on the application of principles to scientific practice (e.g., program evaluation; Jagosh, 2019). A key principle of realism is that there exists a mind-independent reality, whilst also acknowledging that our knowledge of reality is shaped according to ideas, embodied experiences, discourses, and perceptions. As such, IPTs are also

considered mind independent. Realist ontology states that a real world exists independent of how an individual perceives or constructs it, whereas realist epistemology recognises that how an individual perceives and makes sense of reality will inevitably be a construction from their own beliefs and perceptions (Jagosh, 2019).

Study Setting and Program Participants

The RE was conducted across three high-schools: Townsend; Riverside; and Hill-South (pseudonyms). Townsend has approximately 1,000 students aged between 11-19 years (Estyn, 2020), while Riverside has around 700 students aged 11-16 years. Both schools are within the top 50 highest areas of deep-rooted deprivation in Wales, with particularly high employment deprivation, low access to services, low community safety, and a poor physical environment (Welsh Government, 2019). Hill-South comprises 1,400 students aged between 11-18 years (Estyn, 2020). The school is within one of the 10% most deprived areas in Wales for health, employment, community safety, income, and education (Welsh Government, 2019).

Teachers purposefully selected disengaged students from each school according to their overall score on the Vulnerability Assessment Profile (VAP)[2] to participate in TACKLE. Any students aged 14-15 years of age, rated as red or amber on the VAP (at high risk of school dropout) were eligible to participate in TACKLE. In total, across the three schools, 38 students took part ($n = 14$ females, $n = 24$ males), completing 40 weekly two-hour sessions, delivered over a six-month period. Sessions were delivered by "TACKLE facilitators" who acted as students' mentors, classroom educators, and sport coaches. Professional athletes and

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[2] The VAP is used to predict the likelihood that a student may drop out of school, using a variety of criteria ranging from attendance and unauthorised absences to eligibility for free school meals.

work-based placement providers also delivered content. Full details of the program can be found in Appendix 1.

Procedure

Ethical approval to conduct research pertaining to this program was obtained. All parents/guardians and students who had been invited to take part were provided with a written and verbal explanation of the study. Parental informed consent and student assent was gained from those who were willing to be included. All 38 students who were enrolled on TACKLE chose to take part in the evaluation.

Phase One: The Development of Initial Program Theories

To develop IPTs, a narrative review of the literature and informal discussions with TACKLE facilitators were conducted. The IPTs aimed to examine how the TACKLE program was expected to work and included theorising different elements of contexts, mechanisms, and outcomes.

A Narrative Review of the Literature. The narrative review focused on defining and conceptualising disengaged young people, the engagement, behavioural, and psychosocial challenges such young people encounter, and the four modalities of the TACKLE programme: one-to-one mentoring; classroom-based learning; work-based placements; sport and physical activity. Substantial literature was available on each type of modality. Consequently, given the breadth of information to be covered, combined with the vast evidence base, the review drew mainly on meta-analyses and systematic reviews, supplemented by examples from individual studies where appropriate. The overall effectiveness of each modality was summarised and an investigation of the characteristics of modalities that facilitated or hindered overall effectiveness was conducted (e.g., age, gender, facilitator background, group composition, program duration). Through this process, we were able to understand disengaged young peoples' context, the causal pathways explaining how

and why programs may work, and the importance of combining modalities together to cultivate positive engagement, behavioural, and psychosocial outcomes. Based on the review, we developed and refined IPTs in collaboration with the TACKLE facilitators.

Informal Discussions with TACKLE Facilitators. The IPTs developed through the narrative review informed the informal discussions with TACKLE facilitators. Facilitators comprised three stakeholders responsible for developing and/or delivering the TACKLE program. The discussions focused on understanding facilitators' justification for each modality (i.e., mentoring, classroom-based learning, work-based placements, and sport and physical activity), how they envisaged the TACKLE program to work, expectations regarding how each modality may interact together, and the factors anticipated to impact program delivery and outcomes. Following this, we presented the IPTs from the review to TACKLE facilitators who provided modifications and refinements based on their own insight and expertise. The narrative review and informal discussions provided complementary data that were used to finalise the IPTs.

Phase Two: Testing the Initial Program Theories

Participant Observation. The lead author acted as a participant-observer throughout the entire program. Approximately 94 hours were spent with students; actively taking part alongside them in activities, observing behaviours and interactions, and engaging in informal conversations (Bonner & Tolhurst, 2002). As an active participant, the lead author was able to gain an understanding of the students' lives, appreciate differences in their experiences of TACKLE, and develop high-quality trusting relationships. Comprehensive field notes were completed during and after each session.

Interviews. Interviews were conducted by the lead author with all students and four teachers who coordinated the program in their school on completion of TACKLE. Interviews ranged from 43-58 minutes ($M = 49.4$ min, $SD = 8.3$ min). Initially, interviews followed a

semi-structured format to understand interviewees perceptions of TACKLE. They then transitioned into the teacher-learner cycle (Manzano, 2016). The interviewer began teaching interviewees the theories behind each component of the program (e.g., TACKLE was supposed to help you practice presenting your ideas to your peers, in a safe and trusting environment) and asking them to articulate their own interpretation of how each modality worked in practice. Encouragement and support were provided to students through questions such as, "how did it work for you?" "Do you think there is something missing?" "Sometimes that isn't working, do you know why sometimes that doesn't happen?". The lead author mitigated social desirability bias and acquiescence by helping students to understand that everyone responds to activities (programs) in different ways and encouraging them to provide examples where TACKLE did and did not work according to the IPTs (Mukumbang et al. 2020). This approach enabled the causal nature of the program to be explored, as well as the identification of important contexts, mechanisms, and outcomes (Gilmore et al. 2019). Recognising that disengaged students may find an interview challenging, students were provided with a personalised video of their involvement in TACKLE to watch as they reflected on their experiences. Researcher produced videos are considered powerful tools for actively engaging students in the research process (Liebenberg et al. 2014) and facilitating more meaningful interaction.

Phase Three: Context-mechanism-outcome configurations (CMOCs) and Refined Program Theories

A realist logic of analysis was used to examine the interview data, form CMOCs, and expand/refine the IPTs. To do this, interview transcripts and field notes were read repeatedly, and audio recordings were listened to multiple times. Throughout this process, the lead author immersed herself in the transcripts while coding relevant data that the author interpreted as relating to contexts, mechanisms, and outcomes (Wong et al., 2015). Data were examined to

understand the effects (outcomes) of TACKLE, the resources that led to effects (mechanisms), and the type of circumstances in which these occurred (contexts). A table was formulated listing the CMOCs and supporting quotes were linked that related to each part of the CMOC. Instances were explored where contextual factors differed across schools and how this may have prevented the activation of mechanisms. Throughout the process of analysis, the following questions were asked (Wong et al. 2015):

1. Interpretation of meaning: do the transcripts provide data that may be interpreted as context, mechanism, or outcome?

2. Interpretations and judgements about CMOCs: what is the CMOC (partial or complete) for the data that has been interpreted as functioning as context, mechanism, or outcome?

3. Interpretations and judgements about programme theory: how does this CMOC relate to the IPT? Given this CMOC and supporting data, does the IPT need to be changed?

The CMOCs and supporting quotes were then shared with TACKLE facilitators and the research team who provided feedback and input, helping to expand analytical capabilities by proposing different ways of conceptualising our data.

Quality and Reporting Standards in RE

The RE was carried out in accordance with the RAMESES reporting (Wong et al. 2016) and quality standards (Greenhalgh et al. 2017).

Findings

In the following section, the findings related to each IPT are described according to key contextual factors, underlying mechanisms, and outcomes of interest. The refined program theories are summarised in the corresponding tables.

Program Theory 1: One-to-One Mentoring

This IPT refers to the impact of a one-to-one mentor, particularly suggesting that mentors may play a key role in ensuring students feel listened to, valued, and respected. There was evidence to support and expand this theory (see Table 1). The findings underlined the importance of facilitators implementing an ethic of care and endorsing a strengths-based orientation.

Table 1. Program Theory 1: One-to-One Mentoring

IPT	A mentor can empathise, understand, and support the student, nurturing their personal development (Grossman & Rhodes, 2002). Through prolonged engagement, the student can develop trust and respect for their mentor, and the mentor can help the student recognise their strengths and passion. Disengaged students may be unsure what they would like to do or hesitant to pursue their passion due to a lack of self-belief and direction. A mentor can provide students with clarity and exposure to opportunities, supporting them in the process of goal setting and planning. Through mentors caring for students, believing in them, and placing sensitive and customised high expectations (specific to each student's contextual circumstances) on them, students may internalise these positive supportive messages coming from credible sources, realising their potential and the innate strengths which they already possess (Noddings, 2005). Thus, facilitators placing high expectations with the underlying mechanism of caring for and believing in students' capabilities.		
CMOCs	Context	Mechanism (resource)	Mechanism (reasoning)	Outcome
Development of Trust and Respect	Students described having negative and psychologically destructive relationships outside of the school environment.	The mentor provided an opportunity for students to feel listened to, respected, and valued.	Many students described an immediate connection with their mentor, for others, the connection developed over time.	Students enjoyed being around their mentor and over time, there was a development of mutual trust and respect, and improved self-disclosure.
Role Modelling	TACKLE mentors were extremely competent and knowledgeable about rugby. Many had extensive coaching experience and had played rugby to a high standard.	Through role modelling, mentoring, and serving as supportive models of success, mentors discussed employment opportunities and provided career-related guidance.	Students listened attentively to advice. Many identified with and looked up to the mentors and felt driven to emulate their achievements.	Development of aspiration and ambition for their future.
Caring and Responsiveness	Due to the emphasis on assessments and accountability, there was limited time for caring or pastoral roles within the school curriculum.	Mentors displayed genuine care for students and responsivity to their needs. They had developed an	Students felt included, supported, and heard.	Improved engagement, students felt valued and cared for in the TACKLE environment.
Strengths Based Versus Deficit Based Messaging	Many students in TACKLE did not	understanding of the students on a	Some students took longer to settle into	

perceive that their teachers understood, cared for, or supported them. Students in TACKLE received deficit-based messaging by teachers within their school.	personal level and were available to listen to students when needed. The TACKLE programs resources and mentors endorsed a strengths-based approach.	TACKLE as they had internalised low self-worth. Others felt particularly drawn to TACKLEs resources and facilitators in the context of receiving negativity within their school environment.	Students were able to identify themselves with the strengths and assets they already possess. Feelings of hope for their future.
Refined Program Theory	In line with the IPT, mentors provided an opportunity for students to feel listened to, respected, and valued. Many students had negative and destructive relationships outside of the school environment and lacked positive role models and support. In these conditions, students enjoyed spending time with mentors and developed trusting and respectful relationships which enabled them to feel comfortable sharing thoughts with their mentor. Within the context of mentors who had extensive coaching experience and knowledge, they served as supportive models of success and provided students with career-related guidance. Students indicated that they identified with and looked up to their mentor and felt driven to emulate their mentor's achievements. This led to positive outcomes, including, feelings of aspiration and ambition for their future. The data supported the importance of facilitators implementing an ethic of care and endorsing a strengths-based orientation. Specifically, within the context of accountability and high-stakes testing, there was a perception among students that their teachers did not understand or care for them. Comparatively, mentors took time to develop an understanding of students and were always available to listen to students when needed, creating a caring environment. In turn, students' engagement increased, and they described feeling included and valued. In addition, data confirmed that some teachers held deeply entrenched deficit ways of thinking about students. In the context of receiving negativity within their school environment, many students were particularly drawn to the strength-based resources and facilitators of the TACKLE program. For these students, the program helped them to identify and recognise their own strengths and capacities. Other students took longer to settle into the program due to receiving repeated deficit-based messaging and internalising feelings of low self-esteem and self-worth.		

CMOC 1.1: Development of Trust and Respect

Students valued the high-quality relationships they developed with TACKLE

facilitators, who served as their one-to-one mentors. These relationships were particularly

important because many students described having negative relationships outside the school

environment (context). Jack explained: "The one person I can't rely upon is [my parent]. Just

can't speak to [parent] about anything… [they] always lies to me all of the time."

Within this context, the mentor provided students with an opportunity to feel listened

to, respected, and valued (mechanism). Many students described how they experienced an

immediate connection with their mentor (mechanism): "We got on right from the beginning, just kind of clicked." (Angharad). For others, their relationship developed over time (mechanism). Dominic recalled:

> I'd say I was quiet for a while, like just kept myself to myself, I mean, didn't really speak to [my mentor]. But after I got to know [mentor] properly, realised [mentor's] sound like and someone I can proper count on.

Through prolonged engagement with their mentor, students started to experience feelings of mutual trust and respect (outcome): "[Mentor's] got my back. I know I can trust [mentor] 'cause they supports and respects me." (Sam). Given the lack of quality relationships in their lives, the students valued the authenticity of mentors and being able to openly share their thoughts and feelings with them (outcome). Megan explained: "They've been someone I can rely on and talk to about anything. Things I haven't even told anyone before."

CMOC: 1.2: Role Modelling.

The mentors were extremely knowledgeable about rugby through coaching and playing experience and were perceived by the students as successful (context). During workshops, mentors provided career-related guidance and discussed employment opportunities. The students listened attentively; as it was evident, they looked up to their mentors and were driven to emulate their achievements (mechanism):

> I really want to do something just like the work [mentor] does. Something in sport and helping, just like what they do with us. So, teaching us sport and coaching us, I'd like to do that with younger children, I think. I'd like to help them play sport because I enjoy doing that, so I could do that all the time, as a proper job I mean (Colton).

Interactions with their mentors had positive outcomes, including, stimulating ambition for their future (outcome):

Well, I know now that I wanna get my coaching qualifications. We talked about

coaching a lot you see, and I realised that I'd really like to train the youngsters you

see, at a good early age, five or six. And then train that team until their older and then

hopefully I can arrange scouts to come down (Adam).

CMOC: 1.3: Caring and Responsiveness

The emphasis on assessments and accountability in school resulted in many students

feeling their teachers did not care for or support them (context). Sophie explained: "They

[teachers] "care" but they don't. They just act like they do. But teachers are too busy to care

for you. They're really toxic." In contrast, mentors were perceived differently: "TACKLE's

different to normal lessons and school in general, like, here I feel like people care and listen to

me, like, actually ask if I'm alright and if there's anything I want to talk about. Teachers never

do that" (Dominic). The students believed mentors displayed genuine care and responsivity to

their needs (mechanism). This was accomplished by demonstrating an understanding of

students on a personal level and always being available to listen (mechanism). Benjamin

explained: "He knows stuff about me like, and so, he'll ask how stuff is and that, and like,

that's tidy [great] because it shows that he's bothered and cares." Outcomes evident included

students demonstrating higher levels of engagement and feeling valued and cared for within

the TACKLE environment.

CMOC 1.4: Strengths-Based Versus Deficit-Based Messaging

It was evident that some teachers held deeply entrenched deficit views about

disengaged students (context), as illustrated in a reflection of a conversation with a teacher:

I was explaining to the teacher that one of the student's wanted to become a doctor,

when the teacher suddenly looked at me and said "A doctor? Is that what he said?

More like painting the walls of the doctor's surgery!".

In such instances, many students had internalised a lack of support, low self-worth, and feelings of failure (mechanism). Yet, within the context of receiving negativity within their school, students were particularly drawn to TACKLE resources and facilitators (mechanism). Many described how TACKLE had helped them to realise their own strengths, while developing hope for their future (outcome):

> It's just changed my life basically; I feel like I can do anything. It's been amazing, it's been a once in a lifetime thing. It's actually done me so well which I was really surprised about because I didn't think I'd change this much with the project, but I did, which is really surprising... It really has boosted my confidence and made me believe in myself and my abilities (Charlotte).

Program Theory 2: Classroom-based Workshops

This IPT explores the type of learning opportunities students are presented with in the classroom setting. There was evidence to support this theory, particularly the emphasis on interactive classroom activities, role play scenarios, small group presentations, and the opportunity for students to practice articulating and presenting their ideas to peers, in a safe and trusting environment. Yet, the classroom-based workshops also demonstrated different ways of working (See Table 2).

Table 2. Program Theory 2: Classroom-Based Workshops

IPT	These may enhance academic, social, and communication skills through access to activities, information, and learning materials, which may provide students with essential perspective (Pearson et al. 2015). Interactive classroom activities, discussions, role play scenarios, and small group presentation work may also enable students to practice articulating and presenting their ideas to their peers, in a safe and trusting environment. These are skills that, due to their educational experiences to date, disengaged students may find particularly challenging.			
CMOCs	Context	Mechanism (resource)	Mechanism (reasoning)	Outcome

Active Forms of Learning	The education system is focused on standardised tests, rote learning, and accountability. Many students felt that in contrast to their curriculum lessons, they had opportunities for their voices and ideas to be heard within TACKLE.	During the classroom sessions, students were actively involved in their own learning through problem solving, distributing roles, sharing their own experiences and perspective, and exploring ideas and interests.	Students experienced greater ownership and control over their learning and higher levels of engagement and enjoyment.	Improved social interactions and cooperation between peers, shared responsibility for learning, and higher levels of creativity and innovation.
The Power of Collective Experience	Many students had encountered adverse childhood experiences. As a result of exposure to such adversity, many students in TACKLE experienced psychological challenges.	During the classroom workshops, students shared perspective and similar experiences of adversity with their peers.	A feeling of being heard, a chance to understand aspects of their own and their peers' lives, the opportunity to process complex emotions and to make meaning of their current or past experiences together.	Improved school attendance, social connectedness, feelings of empathy towards others, and a more positive self-identity.
Refined Program Theory	There was evidence to support elements of the IPT. Particularly, in the context of an education system where students experienced limited opportunity to express their ideas, the classroom sessions worked when they created a student-centred learning environment in which students were actively involved in their own learning. Through working cooperatively together, problem solving and exploring new ideas, students experienced greater ownership and control over their learning, and higher levels of creativity and innovation. It also became apparent that, within the context of students who encountered psychological challenges, bringing students together with similar challenges, provided an opportunity to share experiences with their peers. This enabled students to process difficult emotions and to make meaning of their experiences together. Students developed feelings of empathy for their peers and constructed a more positive self-identity.			

CMOC 2.1: *Active Forms of Learning*

Students described how during the classroom workshops, their voices were heard, something they were not used to in lessons (context). Faye shared: "In TACKLE I can speak my mind out, I can like talk about ideas and stuff that I'm thinking. In English, Sir tells me to keep my voice in." In field notes, it was observed that TACKLE facilitators actively involved students in learning by enabling them to problem solve, delegate roles, and share ideas and experiences. The students highlighted the importance of listening to each other and working

collectively with others to experience more enjoyment towards learning and control over the learning process (mechanism). James said:

> We're learning a lot from TACKLE, but you do it in a more fun and enjoyable way than normal lessons, like our group work, it was getting together everyone's ideas and taking everyone's opinions and interests. Like when we created our own business, that was spot on, fair play, I loved it… I think them sort of tasks give you more say, like you're kind of in control 'cause you have a say in all the decisions.

Consequently, students felt that active learning, particularly in groups, helped them to think more creatively (outcome): "It [group work] sort of pushes you to think deep and teaches you to speak out your ideas in something you've worked together to create" (Emma).

CMOC 2.2: The Power of Collective Experience

For several students, anxiety and panic attacks were common and students described struggling during their day-to-day school experiences (context):

> I struggled in year seven and eight because I had like bad school anxiety, so I found it hard to go into school, so I was like they'd let me like, not home school but like I stayed off for like a good three months… I just found it too hard in school but then both times I got in like a rut when I was in the house, not coming out, so, I decided to come back in (Ryan).

Such feelings were likely due to their early exposure to life adversity and/or their chaotic and complex lives (context). As one teacher explained: "There's so many social and personal issues here, there is drama in virtually every one of these kids' lives…You know, these issues impact hugely on their engagement and wellbeing you know, a real poor support network."

Throughout the workshops, students constructed a more positive self-identity (outcome) through sharing experiences of adversity with their peers (mechanism). For many,

discussing past experiences helped them develop an authentic understanding of each other, while simultaneously processing complex emotions (mechanism):

> When [my parent] died, it made my anxiety and depression 'anging [bad], smoking helps though, it helps with panic attacks, makes them go down. Little things really stress you when you're going through things. But here [TACKLE], we get each other, these boys', we've all been through the same shit, we get it. Most [people] don't get us. But been in this group with everyone, we can talk to each other and it's like I erm, I thought maybe I can do this [school], maybe I can stick to it (Jamie).

From listening to each other's perceptions of their past experiences, students felt better able to make sense of past or present experiences in their own lives (mechanism): "I do make jokes about it [parental incarceration] 'cause it is what it is… But speaking to the boys did make me see that it's not my fault though what happened" (Elliot). Further, through sharing experiences with their peers, students were able to develop personal relationships, social connectedness, and an appreciation of one another's challenges (outcome):

> It made me realise that other people experience… they erm go through the same sort of things and feelings. I suppose it kind of like made me think differently and not be so hard on myself you know, like to stop worrying about stuff, and like feeling so bad about things that have happened cause I'm not the only one with problems here (Bethany).

Program Theory 3: Work-Based Placements

This IPT explores the idea that exposure to work-based placements may re-ignite students' engagement in their education, helping them develop a vision for their future, and providing clarity regarding post-school opportunities. There was evidence to support and expand elements of this theory (see Table 3).

Table 3. Program Theory 3: Work-based placements

IPT	To re-ignite interest and engagement in education, students may benefit from exposure to practical experiences through work-based placements. Such experiences may help students develop a vision for their future and offer clarity regarding career options post-school. Work-based placements may also provide experiential learning opportunities which allow students to gain the skills, competencies, and behaviours necessary to secure employment in the future (Chen, 2011). Through engagement with supportive, knowledgeable adults, students may develop their perceived social and job competencies.			
CMOCs	Context	Mechanism (resource)	Mechanism (reasoning)	Outcome
Exploration of Possible Life Directions	Many students felt disconnected towards learning. They had limited understanding of future prospects and were unaware of the opportunities available to them post-school.	Trips to various companies provided exposure to new possibilities for thinking about their future. This was accomplished through role play and allowing students to practice working.	The students felt comfortable in their new roles, and this experience expanded their thinking, enabling them to realise their own strengths and talents, while acquiring new knowledge and skills. The students realised they were interested in particular jobs that were previously unknown. This triggered feelings of hope and re-ignited excitement towards education and their future.	Improved attendance, engagement, and behaviour in core subject lessons due to an enhanced motivation to achieve the exam grades necessary to pursue future options.
Process of Elimination	Students were unaware of the opportunities available to them post-school.	Students received exposure to various companies and work-experiences. They realised they did not feel a connection and decided not to pursue these occupations.	They started to direct their energy into thinking about what jobs they would like to pursue.	This led to students eliminating the jobs that did not resonate with them and encouraged them to seek out different opportunities.
Refined Program Theory	In accordance with the IPT, exposure to work-based placements re-ignited students' interest in their education because they provided students with a vision of the occupations, they would like to pursue and clarity regarding the pathways available to them. They also helped students to recognise their own strengths and talents, while simultaneously acquiring new knowledge and skills and, for some, providing an opportunity to overcome mechanisms of anxiety and fear triggered by unfamiliar people and a new environment. Some students did not connect with the work-based placements, which enabled them to eliminate unappealing jobs and begin to seek out alternative opportunities.			

CMOC 3.1: Exploration of Possible Life Directions

For many students, an accumulation of negative educational experiences had impacted

their motivation to learn. From the data, it was evident that students lacked clarity regarding

available options post-school, such as, vocational training schemes and apprenticeships

(context). Successful experiences in the workplace triggered mechanisms of hope and helped students to envisage possible life directions. Consequently, students' engagement in classroom lessons was enhanced, as they were able to make a meaningful connection between completing school and future opportunities (outcome). As Lowri said: "Finding the things that I've found out in TACKLE, all of the jobs I can do after school, changed the way I look at the [school] work and changed the way I thought because what I thought wasn't reality." For the first time, many of the students could identify a reason for completing school. Moreover, for some students the work-based placements enhanced perceptions of competence and developed their awareness of their strengths (mechanism). Reflecting on an engineering workshop, Lewis indicated: "So, my favourite part would be like knowing, finding out more about me. I've done stuff that I didn't know I was even capable of doing." The work-based placements also helped with the acquisition of new knowledge, assets, and skills (mechanism), including strategies they may apply in the future to establish an empowering working environment.

CMOC 3.2: Process of Elimination

In contrast to the students who realised which occupations they were interested in pursuing; a few students did not connect with the placements, and they triggered different mechanisms and outcomes. Prior to TACKLE, students were unaware of what opportunities were available to them after school (context): "I didn't have no clue what sort of things I could do [after school] so, it helped me a lot seeing the different jobs that I can do and you know, trying them" (Amelia). Through immersing themselves in various work placements, they realised the types of jobs they *did not* want to pursue (mechanism), and this led to a desire to seek out different occupations (outcome). As Carl described: "I found them boring, particularly 'cause I know now that I wanna work on my own and do things my own way, I

wanna find something [a job] where I make the decisions." Consequently, work-based

placements helped some students to eliminate jobs they did not find appealing (outcome).

Program Theory 4: Sport and Physical Activity

This IPT is grounded in the proposition that students can develop important life skills

through sport and transfer these to other life areas. The findings supported this theory to an

extent. It was evident students developed life skills across all modalities and life skill

development was not solely specific to the sport context. The sport workshops also exposed

students to new activities and opportunities (see Table 4).

Table 4. Program Theory 4: Sport and Physical Activity

IPT	These activities may provide students with the opportunity to develop physical and social competencies, a sense of purpose, and transferable life skills (Bailey et al. 2013). If students are effectively taught life skills within sport contexts, they may be able to effectively apply these skills across other life domains (Gould & Carson, 2008). For these to be transferred, facilitators need to reinforce the lessons learnt in a variety of ways (e.g., team discussions and role play) and allow students to practice these skills in different domains (Whitley et al. 2016). The successful transfer of life skills to other contexts may lead to improvements in student's sense of coherence, engagement, behavioural, and psychosocial outcomes (Super et al. 2018).			
CMOCs	Context	Mechanism (resource)	Mechanism (reasoning)	Outcome
Position of Authority	Students involved in TACKLE were often disempowered. They were typically not trusted by significant others and were not provided with opportunities to lead or to take control. There were hierarchical power inequalities.	Students had the opportunity to deliver practical activities to peers and to referee rugby matches for younger age groups. This offered leadership responsibilities and opportunities for students to re-associate how they identified with themselves.	Students felt like a leader and had opportunities to experience what it felt like to be in a position of authority. They experienced feelings of competency, empowerment, and pride when the session was well received by their peers.	During TACKLE, students internalised feelings of competency. They continued to search for new leadership roles and volunteering opportunities within the school and established new ways of interacting with teachers and peers.
Exposure to New Opportunities	Students were living in deprived and disadvantaged areas, with limited access to transport, facilities, and sporting opportunities.	Students were provided with access to new sports, transport, and sporting opportunities.	Feelings of appreciation and gratitude for the opportunities.	Social cohesion and opportunities to connect with others.

Refined Program Theory	Consistent with the IPT, in the context of students who were often disempowered and not provided with opportunities to lead or to take control, the strategy of placing students in positions of authority and providing them with leadership responsibilities led to positive outcomes. Students internalised feelings of competency, empowerment, and pride and continued to search for new leadership/volunteering roles within school. The program theory was also expanded as data revealed different ways in which the sport workshops worked. For instance, TACKLE provided opportunities for students to attend professional rugby matches, stadium tours, and to participate in new sporting activities. Access to these opportunities would otherwise be limited, due to the cost of involvement and a lack of facilities and transportation. In this context, students expressed appreciation and gratitude for the opportunities provided and social cohesion was facilitated.

CMOC 4.1: Position of Authority

Many students were often disempowered; typically, not trusted by teachers or significant others and not provided with opportunities to lead or to take control (context). In this context, facilitators spoke of the importance of offering students' leadership responsibilities and placing them in positions of authority; students officiated rugby matches, organised tournaments and delivered activities to their peers. Consequently, students described enhanced competency, empowerment, and pride (mechanism). Benjamin said:

> In school, I'm usually sitting at the back like, trying to erm, trying to hide away from everyone. But on the field, it's kind of like I'm a different me. It's helping my confidence, I feel more happy in myself, like I can do a lot more things in life.

Students searched for more leadership responsibilities within the school, establishing new ways of interacting with their teachers and peers (outcome):

> I'm helping teachers run clubs in school. And that's quite a big, it's quite a big thing, helping teachers and that at my age. But after TACKLE, the teachers are trusting me with it you know, so, it's the confidence I've got, the speaking around people more, and helping out others (Michael).

CMOC 4.2: Exposure to New Opportunities

Students were living in disadvantaged areas, with limited access to facilities, transport, and sporting opportunities (context). During TACKLE, students participated in new sporting

activities, attended professional rugby matches, and experienced a stadium tour. Many

students expressed appreciation for the opportunities provided (mechanism):

> I haven't missed one single session, and I haven't missed any trips or lessons, even
> when I was ill. Remember when I was really ill, really bad? But, because I didn't want
> to wreck the opportunity in coming to watch a match and see the stadium, meet rugby
> players. So, this is better than everything in this school (Nathan).

In general, it was evident the opportunities provided in TACKLE led to positive outcomes,

including, improved social cohesion and connections with others (outcomes). For example, in

describing the impact of the sports and activities, Thomas stated: "It like brought a lot of us

closer together. We experienced so much together and built good companionships and now

we can trust each other with lots of things."

Program Theory 5: Professional Athletes

This IPT postulates that professional athletes may have potential to serve as powerful

role models for students. There was evidence to support this theory, however, in certain

contexts for certain students this theory was not supported (see Table 5).

Table 5. Program Theory 5: Professional Athletes

IPT	Given that rugby is the national sport in Wales, professional rugby players may provide a platform to inspire and motivate students (Armour & Duncombe, 2012). Through authentically sharing their own personal backgrounds, the challenges they encountered at school, and emphasising to students the importance of school completion, the athletes may inspire students who are facing similar challenges. Students may internalise the messages received by the players, changing the value they place on education, re-igniting an interest in their studies, and a desire to complete their exams.			
CMOCs	Context	Mechanism (resource)	Mechanism (reasoning)	Outcome
Connecting to the Struggles of Role Models	Many students were interested in, and passionate about rugby.	Students listened to athletes discuss the academic and behavioural difficulties they encountered during school and shared with students that they were currently completing	Hearing this information from role models influenced students' perspectives as they realised that somebody they look up to and admire has experienced similar academic/behavioural	Changes in attitudes, behaviours, and the value students place on education. Enhanced motivation to complete school.

		qualifications alongside rugby.	challenges and needs to study in order to have career options available.	
Lack of Connection	A minority of students displayed a lack of interest in rugby.	Students listened to the athlete's narratives, their background, and schooling experiences.	Students were unable to connect with the athlete or internalise the messages received due to a lack of admiration for the athlete and perceived dissimilarities between themselves and the athlete.	Disengagement and limited interaction during the workshops.
Refined Program Theory	In accordance with the IPT, there was evidence to suggest that within the context of students who were interested in, and passionate about rugby, the professional athletes were influential in shaping their attitudes towards education and triggering a realisation of the importance of school. Yet, a minority of students lacked interest in rugby. In such contexts, students were unable to connect with the athlete or internalise the messages delivered. These findings corroborate research on social learning theory (Bandura, 1977), which suggests that in order for an individual to engage and internalise the messages received by a role model, they must be considered important and relevant to the student and may need to possess similar characteristics.			

CMOC 5.1: Connecting to the Struggles of Role Models

Within TACKLE, most of the students displayed an interest in rugby and a passion for the sport (context): "I've grew up with rugby mind, it's erm defo [definitely] my favourite sport, and well all my brothers love it too" (Rhys). In this context, interactions with professional rugby players served as a powerful 'hook' to capture their attention. Listening to players share their own experiences, students realised that somebody they admire had also faced academic and behavioural challenges (mechanism). Further, the value students placed on education shifted as they realised even professional athletes must navigate education and university to have options post-rugby. This resulted in several students experiencing a shift in their attitudes towards education (outcome):

Like, I've never liked school but like now I know that I need to go. Because it is the start of everything, and I'll be honest before I didn't really care. Now, I'm like I need to go, otherwise, I'm just not gonna get a job later. Just like [rugby player] said, I

don't want to look back and regret not working you know, hard enough now… Even [rugby play] is doing exams and that just, suppose well you know, it just tells you how important they are, I reckon (Emma).

CMOC 5.2: Lack of Connection

In contexts where there was a limited interest in rugby, students were unable to connect with the player nor internalise the messages delivered due to a lack of admiration and a failure to identify similarities between themselves and the athlete (mechanism). Marcus shared: "I'aint a big rugby fan so I don't, like, well no like it didn't change anything for me cause I'm not a rugby type of person and [I'm] not interested in rugby people." These students were disengaged and withdrawn during the workshops with the professional athletes (outcome).

Program Theory 6: The Importance of a Multi-Component Program

This IPT refers to the importance of a multi-component program. There was evidence to support this theory (see Table 6).

Table 6. Program Theory 6: The Importance of a Multi-Component Program

IPT	To re-ignite students' engagement, a singular approach may not be sufficient. To accommodate for each student's varied interests, they may need to receive exposure to a mixture of modalities (Rajasekaran & Reyes, 2019). Mechanisms may be triggered for different students at different time points and through different activities. Thus, different modalities may complement others and work in synergy to enhance students' engagement. A multi-component program may also provide students with the opportunity to receive many forms of feedback and support from different individuals, which is particularly important for disengaged students who due to an accumulation of negative experiences, may have internalised perceptions of incompetence across many domains (Rajasekaran & Reyes, 2019).			
CMOCs	Context	Mechanism (resource)	Mechanism (reasoning)	Outcome
Exposure to Different Modalities	Many students in TACKLE were disengaged and disconnected from school.	Exposure to a diversity of modalities (mentoring, classroom-based workshops, work-based placements, sport, and professional athletes).	Through involvement in the various modalities, students were provided with a range of new experiences,	Students started to look at themselves differently – they developed a recognition of their own skills and interests, while simultaneously developing new skills throughout the

		opportunities, and pathways.	different components. This re-ignited their engagement in learning and motivation to complete school.
Refined Program Theory	There was evidence to support the IPT. Particularly, in the context of students who were disengaged and disconnected from school, the multi-component program provided access and exposure to a diversity of experiences and opportunities. Through exposure to different experiences, students developed a recognition of their strengths and interests, while simultaneously developing new skills. This led to positive outcomes for students, including, enhanced engagement in learning and education to complete school and pursue their interests.		

CMOC 6.1: Exposure to a Diversity of Modalities

For students who were disengaged and disconnected from school (context), TACKLE provided exposure to diverse modalities and resources. Through involvement, students were provided with a range of new experiences (mechanism):

Different because, I don't know, it's [TACKLE] just, it's different to anything I've ever been [to] in school before. We got to do a range of things and they were, like, different to what I've ever done before in school. It's like, I've been taken out for a few things now but I, I think this has been the best one (Ryan).

Students began to view themselves differently. They developed a recognition of their own skills and interests, while simultaneously developing new skills (outcome):

It helped me realise my own skills. So, a lot of my skills came out with the sport, the competitive games, and the erm, the teamwork classroom sessions. I let people know how to do something, but I don't tell them. I go along with them and show them… 'it would be best if you did this, did that' and not 'you need to do this, you need to do that'. It would be a rare occasion I'd say something like that (Callum).

This knowledge and enhancement in skills re-ignited students' engagement in learning and motivated them to complete school to be able to pursue their interests (outcome): "I would say it's made me more focused in lessons. Because I know what I want to do and so, it's just how to get there now, isn't it? (Ryan)."

Discussion

The aim of this study was to examine how, for whom, and in which contexts the TACKLE program impacted (if at all) the engagement, behavioural, and psychosocial outcomes of disengaged students aged 14-15 years. The findings provided insight into the contextual conditions and mechanisms through which TACKLE led to desirable and undesirable developmental outcomes. Overall, this evaluation reveals that a multi-component approach can work synergistically in a coordinated, accumulated, and dynamic way to provide students with the necessary support to re-ignite their engagement in education.

For students involved in TACKLE, the traditional education curriculum was unresponsive to their diverse interests and abilities, reinforcing their disengagement at school. In contrast, consistent with previous literature, many of the students taking part in TACKLE valued the inclusion of work-based placements and vocational learning opportunities (Hartas, 2011; Nelson & O'Donnell, 2012). Such work-based placements enabled students to identify and recognise their strengths, while exposing them to future occupations. Thus, the findings of this evaluation reinforce the need to consider re-structuring the curriculum to positively respond to disengaged students' interests, needs, and employment aspirations (Hartas, 2011).

Students were more likely to engage when TACKLE facilitators created an environment in which they were actively participating in their own learning. Outcomes evident due to active participation included students cooperating more effectively, higher levels of creativity and innovation, and a sense of shared responsibility for their learning. Such findings suggests that the use of constructivist inspired pedagogies may be needed to facilitate learning among disengaged students (Azzarito & Ennis, 2003).

This study highlighted that for disengaged students, many of whom experience a range of psychological challenges, and have been exposed to early life adversity (Kirlic et al. 2020), the opportunities to form positive peer relationships is an important mechanism through which programs can enhance outcomes. During TACKLE, positive peer relationships provided students with support that promoted more effective coping strategies. Through discussing their experiences of adversity, students were able to make sense of these aspects of their lives, develop empathy for others' challenges, and re-shape how they seen their own individual experiences. In line with social exchange theory (Homans, 1958), the benefits of social support were reciprocal. For instance, while receiving social support from peers was advantageous, providing social support and encouragement to peers also appeared to enhance psychological outcomes, by reducing distress and the stress response. Due to similarities in life experiences, disengaged students may be more likely to identify with their peers (Topping, 1996). This was apparent in the current study which identified that informal peer-to-peer mentoring that arose between students allowed them to feel empowered to make positive changes and construct a more positive self-identity through supporting others. To date, most programs have evaluated the impact of peers providing support to younger peers (Douglas et al. 2019). Yet, the current findings highlight the potential for students of the same age to positively impact one another.

Beyond peer relationships, TACKLE provided opportunities for students to develop relationships with a variety of adults, which were considered critical to the success of the program. The students indicated that these relationships had a positive impact on their psychosocial outcomes, self-worth, relationship skills, and hopes for their future. Consistent with prior research (e.g., Ronkainen et al. 2019), during the process of identity formation, this study highlighted the importance of students receiving exposure to a diversity of support structures, role models, and learning opportunities. Through access to role models and

multiple sources of support, students can experience a change in their own 'imagined' or 'possible' selves (Gibson, 2004). Yet, one implication of the current findings is that students may be more likely to be inspired by and internalise messages from role models when there are similarities between themselves and the role model figure in relation to interests, backgrounds, life experience, gender, and age (Armour & Duncombe, 2012).

Within the context of low levels of family support and a lack of caring experiences, the importance of TACKLE facilitators/mentors developing caring, stable, and consistent relationships with students was particularly beneficial. Students valued the authenticity of the facilitators and how they responded to their needs. For disengaged students, the importance of consistency, authenticity, and meaningful connections has been well documented (Grossman & Rhodes, 2002). Unfortunately, students involved in TACKLE voiced discontent with current school practices and the perceived absence of caring relationships with their teachers. They attributed the lack of care to an educational culture focused predominantly on academic attainment, testing, league tables, and accountability, which has been previously associated with low continuity of care in school settings (Noddings, 2005). Within such constraints, the current findings reinforce the critical need to develop strategies to demonstrate care when working with disengaged students.

Finally, TACKLE facilitators/mentors endorsing a strengths-based ethos was an important overarching mechanism that enhanced the success of the program. The emphasis on students' strengths differed from traditional approaches to re-engaging students that have predominantly adopted a deficit-based ethos. That is, a focus on what is wrong with students, including, psychosocial challenges, deviant behaviour, and risk factors (Hanrahan, 2018). For disengaged students, the explicit recognition of, and ability to develop their strengths has been deemed particularly important, given that they may have fewer opportunities to realise those strengths within their school, home, and community contexts (Super et al., 2019).

Lessons Learned

Although the realist approach responds to the need to understand the mechanisms that underlie the effectiveness of multi-component programs, there are challenges conducting RE's that should be considered. First, the process of developing IPTs, identifying, and distinguishing between contexts and mechanisms, and forming CMOCs requires a substantial amount of time, creativity, and critical reflection on behalf of the research team (Dalkin et al. 2015). It is important to ensure sufficient time is devoted to such processes and the research team meets frequently to have the depth of dialogue necessary to discuss emerging analytical findings. Additionally, there is limited guidance, rules, and procedures regarding the operationalisation of RE. Due to the exploratory nature of the approach and the lack of standardisation, it can be difficult to assess the outputs of a RE. The effectiveness of the approach may only become evident when program implementers act on the findings and recommendations of the RE.

Limitations and Future Directions

Previously, little attention has been directed towards the ways in which multi-component programs impact disengaged students' developmental outcomes. This study provides the first insights into how and why a multi-component program led to changes in students' engagement, behavioural, and psychosocial outcomes. The refined program theories provide an explanatory framework and a re-useable conceptual platform that can be applied to similar programs targeting the re-engagement of disengaged students. Nevertheless, there are limitations to this study that should be taken into consideration. The TACKLE program was implemented over a six-month period, with inconsistent delivery due to various school breaks and curriculum requirements. Programs delivered over a sustained period may enhance the likelihood of students' losing interest and subsequently, increase attrition rates. The lead author's role as a participant observer may have influenced the delivery of TACKLE, as well

as the outcomes generated. Students and teachers were only formally interviewed at one time point, which did not allow for a critical understanding of the long-term implications of multi-component programs or an examination of changes in students' outcomes over time. Prospective, longitudinal research is needed to explore disengaged students' long-term engagement, behavioural, and psychosocial outcomes, and their educational and employment trajectories.

Conclusion

This study advances important bodies of research by examining how, and in which contexts, a multi-component program impacted the engagement, behaviour, and psychosocial outcomes of disengaged students. The findings indicated that each component of the TACKLE program had a synergistic effect that triggered students' interest and engagement in their education. Future research is needed to extend the present study by examining the long-term sustainability effects of multi-component programs on disengaged students' developmental outcomes.

Author Note:

Please note this manuscript is part of Dr Owen's PhD studies which were conducted at Swansea University. Additional information is available from:

https://cronfa.swan.ac.uk/Record/cronfa58701. Emily is now a Research Fellow at UCL.

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Vitae

Emily C. Owen, PhD, is a Research Fellow in the Department of Primary Care and Population

Health at University College London. Her research focuses on disadvantaged populations,

health inequalities, collaborative and integrated ways of working, and realist approaches to

evaluation and evidence synthesis.

Camilla J. Knight, PhD, is a Professor in Sport Psychology and Youth Sport at Swansea

University and University of Agder. She is also the Youth Sport lead for the Welsh Institute.

Denise M. Hill, PhD, is an Associate Professor of Applied Sport Psychology at Swansea

University. She is also the Wellbeing and Mental Health lead for the Welsh Institute of

Performance Science.

CRediT authorship contribution statement

Emily C. Owen: Conceptualisation, Methodology, Investigation, Formal Analysis,

Visualization, Writing – Original Draft. **Camilla J. Knight:** Conceptualisation, Project

administration, Funding Acquisition, Visualization, Writing – Review & Editing,

Supervision. **Denise M. Hill:** Writing – Review & Editing, Supervision.

Appendix 1.

Overview of the TACKLE Program

Modality and total number of sessions:	Aim of each modality:	Topics covered/Activities:
Classroom Lessons: 12 sessions.	To enhance students' academic, social, and communication skills through access to activities, games, information, and learning materials which may provide students with essential perspective.	Coping with feelings and emotions, group work and team building challenges, establishing business ideas and sport clubs, organising events (e.g., primary school rugby festival), healthy eating and smoothie making, CV workshops, mock interviews, and professional rugby player talks.
Sport and Physical Activity: 12 sessions.	To develop physical and social competencies, knowledge, and transferable life skills (e.g., goal setting, emotional regulation, discipline, leadership, resilience, and work ethic).	Refereeing/officiating, designing, and delivering drills, working towards sport leader's qualification. Activities included: football; rugby; badminton; basketball; netball; bench ball; dodgeball; fitness/circuits; and inflatable rugby cage drills.

Work-Based Placements: 7 sessions.	To provide students with exposure to a diversity of occupations and help them to understand their options post-school.	Workshops included: construction; carpentry; painting and decorating; engineering; customer support team roles; ICT; technician roles; hospitality and catering; social media marketing; graphic designer; and police community support officer roles.
One-to-One Mentoring: 6 meetings.	To nurture the mentees overall personal development.	Focusing on employment/educational opportunities, school-related issues, and relationships with teachers, peers, and family/caregivers.
Rewards: 3 sessions.	To allow students to access and explore new opportunities, that otherwise may not be possible due to financial constraints.	Attending a rugby match and a tour of the Liberty stadium. At the end of the program, students are provided with certificates and awards (e.g., ambassador awards) during a celebratory event delivered by professional rugby players, teachers, and TACKLE facilitators.

Highlights

- Video-based interviews can be considered valuable pedagogical tools.
- A multi-component program can work synergistically to re-ignite engagement.
- The findings can be used to inform future program design and innovation.