



EVALUATION REPORT

Silver Arts Award Summer School

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Executive Summary

Overview

In 2022-23, 29% of students eligible for free school meals at 15 had progressed to university by the age of 19, compared with 29.2% the previous year – the first time the rate has fallen since it was first measured in 2005-06 (DfE, 2024). These figures reflect the persistent gaps in social capital and attainment between advantaged and disadvantaged pupils. Students from underrepresented and disadvantaged backgrounds are less likely to apply/enrol to HE than their peers. UCA has engaged with students from widening participation criteria in previous activities where they achieved Bronze Art Awards. The literature shows more intensive activities and longer contact hours yield the greatest impact on WP students.

The APP-funded summer school intervention was conceived as a pilot for a new APP cycle, that would build on the established Bronze Arts Award programme.

Project Aims

The overarching aim of the intervention is to increase enrolment in HE creative degrees through raised aspirations and increased academic success. The summer school seeks to re-engage with the Year 9 to Year 11 students to provide them further exposure to a university environment to raise aspirations and reinforce self-belief in them achieving their future possible selves. At the core of the programme is the Silver Arts Award curriculum which gives students the opportunity to develop key creative skills as well as cognitive and non-cognitive skills, believed to be, conducive to increased academic success. The content is designed to achieve the following objectives:

- Increase transferable skills linked to academic attainment (resilience, creative thinking, and problem solving)
- Increase knowledge of HE
- Boost confidence and self-efficacy (social, academic and self-regulatory)
- Foster sense of belonging in a HE context
- Increased motivation/self-belief to achieve their future goals and perceived possible future selves

Participants

This pilot of the intervention intended to engage with students from low socio-economic backgrounds (identified by the use of metrics such as area-based indicators). The self-sign up intervention was open to students studying in Year 9 to Year 12 (aged between 14 and 17). A total of 23 students signed up to the event, but 3 of them withdrew from the programme before Session 7. The data for the 20 participants who took part in at least 3 of the pre-residential online sessions; and attended at least 2 days of the on-campus programme has been included in the analysis.

Demographic data revealed the programme did not interact with as many students with widening participation characteristics as initially intended. Due to low sign-ups there was no exclusion criteria for participation in place.

Data Collection Methods

Self-reported attitudinal surveys and polls (based off TASO's validated scales) were conducted before and after the event. The pre-survey was appended to the application form, whilst the post-survey was paper-based and administered on the last day of the residential summer school. Both methods yielded 100% response rates (n=20) – albeit with missing responses against certain measures. The polls had more bespoke questions but had lower response rates (n=13). A second post-survey was designed to be implemented during an online session for more robust data, however there were no responses obtained.

An internal metric to measure creativity derived from the 'Torrance-Test' was piloted through an interactive activity. However, this needs to be further developed as it has not produced reliable data with some students even showing regression in skills. The baseline predicted grade needs to be improved.

Qualitative methods included a 1.5 hours online focus group discussion conducted by the delivery staff (assisted by student ambassadors) who were trained by the researchers. The group was represented 65% of the sample population (n=13) and provided extensive insights into the perceived changes in skills, confidence and intention to apply to HE through a reflective discussion. Although the student handbook is an externally produced resource to assist the implementation of the Silver Arts Award curriculum, there were reflective sections within it which supplied further qualitative data for the purpose of the analysis.

Methodological Limitations

It is suspected that the variations in age of the participation may have resulted in the inconsistent quantitative observations. The self-reported surveys produced perplexing results whereby even latent items of the same construct yielded different responses from the same group of students. This study has further highlighted the challenges presented to the evaluation when relying on attitudinal surveys advocated for the sector. There is merit in questioning the validity of the surveys when dealing with heterogenous groups. Especially, when questions are not tailored to directly related to the actual intervention being delivered. However, due to time pressures we were unable to produce a more pertinent surveying tool for the summer school. It is advised that bespoke evaluative tools are embedded in the student handbook and activities in future iterations of the intervention.

Self-selection bias and recruiting from a pool of previously engaged-with students further compromises the data. Participants had all completed the Bronze Arts Award programme with UCA in the past. They are therefore already motivated students if they were keen to achieve a Silver Arts Award from the onset. There may be a case of us preaching to the converted and a need to rethink recruitment strategies.

Another challenge, was missing responses against certain items of the quantitative questions or incomplete tasks feeding into the internal metric. This led to matched responses in the surveys and polls varying from a sample of 13 to 20 students. The fluctuations in sub-samples made it difficult to draw generalised conclusions.

The nature of educational data means that there is a time lag before the desired outcomes can be observed. Apart from the single Year 12 participant, Year 9 and 10 students comprise 85% of this cohort. It would take a minimum 3 to 4 years for them to be ready to progress to HE and for the long-term outcome and impact of the programme to be truly evaluated. Therefore, even though the summer school is designed to be an attainment-raising programme, it is difficult to concretely comment on its effectiveness in improving the skills required for greater academic success.

The greatest limitation was the absence of an empirically robust evaluation plan that could have informed not only more effective data collection methods; but also identified better defined overarching outcomes for a more focused approach to delivery. The perplexing case of programmatic design preceding evaluation design, instead of being developed in tandem is a known conundrum for the sector – often occurring due to resource constraints and funding insecurities. Between the tight window of the programme's inception and delivery, and the capacity constraints of the KMPF researchers, it was decided that the event, developed off the blueprints of the already established Bronze Awards, would be treated as pilot programme to test out evaluation tools and methods that would then inform the comprehensive evaluation plan to follow. TASO's scales were adopted and generic attainment raising outcomes were appended to the programme – which in hindsight were not appropriate tools for an arts-based attainment raising programme which operates differently from non-creative activities and requires more bespoke attainment measures.

Despite these limitations, this report candidly reconciles these with the fruitful learnings that have emerged to inform the next iteration of this project. The 'Discussions' section of the paper reflects on the 'sustained engagement' series this programme is part of and the evaluative scope it holds.

However, the pilot programme allowed us the unique opportunity to trial as many different methods of collection as possible through the polls, surveys, internal metrics and the focus group discussion at the end. Undoubtedly, we observed survey fatigue for the second post-survey. The poll surveys were supposed to capture online experience while the surveys were designed to measure outcomes linked to the residential summer school. However, this would have exacerbated the feedback fatigue for participants. All of these observations are invaluable in informing future research methodology designs.

Findings

There's been no significant movement in quantitative pre-post agreement responses to survey questions measuring constructs relating to increased intention to apply to HE and increased key learning skills through the programme.

The data is potentially revealing self-selection bias wherein we would expect participants with existing high aspirations to apply for self-sign up events like summer schools. 85% (n= 17 of 20) of the sample group were already either extremely likely or likely to apply to HE. Self-reported attitudinal measures registered high proportions of response to positive agreement

statements against all other domains prior to the event – meaning there was little scope for major shifts in pre-post improvements.

There were no statistically significant findings from the quantitative arm of the analysis. However, qualitative data painted a more favourable outlook on the effect of the summer school with students reporting an increase in social self-efficacy, increased non-cognitive skills and raised aspirations and motivation to engage in the creative sector in the future.

In sum, qualitative findings convey the summer school experience was generally positive, with students appreciating the interactive and creative nature of the program. The program successfully increased interest in university attendance and boosted confidence for many attendees. However, some challenges, particularly around social interactions and program structure, were highlighted. Incorporating student feedback into future programs will help refine the experience and maximize its impact.

However, if the quantitative analysis findings were taken into account, although insignificant, there were negative observations with regards to confidence in certain domains. Outreach activities that provide a fuller understanding of the demands of degree level study can often lead to a dip in learner confidence in their ability to succeed in HE. Additionally, since the self-sign up nature of the event, self-selection bias is very likely to have contributed to no significant pre-post observations in the quantitative analysis due to the programme engaging with already highly motivated students with strong intentions to progress to HE. Due to the contradictory nature of the quantitative findings (all statistically insignificant) and the qualitative ones, it is impossible to draw conclusive generalisations from the data.

Recommendations

The main recommendation is for greater synergy between the delivery and evaluation team. Greater time investment is needed from both parties to develop a thoughtful and effective evaluation plan that would inform the design of the summer school. Whilst this paper integrates an enhanced theory of change (see Appendix A and B), the programme design was not underpinned by the literature presented in this paper. Instead the delivery team is advised to use the enhanced theory of change and causal pathways in the development of future similar programmes. There are also further practical elements that will need to be reviewed through joint consultations between the practitioners and the researcher (e.g: participants' inclusion criteria; complexity of evaluating multi-age groups; greater targeted engagement; internal metric design; development of more suitable evaluation methods) .

1. Introduction

In 2022-23, 29% of students eligible for free school meals at 15 had progressed to university by the age of 19, compared with 29.2% the previous year – the first time the rate has fallen since it was first measured in 2005-06 (DfE, 2024). These figures reflect the persistent gaps in social capital and attainment between advantaged and disadvantaged pupils. Recent data from Kent County Council highlights significant attainment gaps between advantaged and disadvantaged students across various educational stages The gap in Key Stage 2 attainment

between pupils eligible for Free School Meals (FSM) and their peers stood at 24.9 percentage points (KCC, 2024).

Despite funding cuts, sustained outreach activities have been developed to further reduce the educational gaps for widening participation students. The Silver Arts Award (SAA) Summer School programme delivered by the University for the Creative Arts (UCA) was designed as a sustained package following their established Bronze Arts Award programme. Arts Award is an initiative where young people can gain arts qualifications through both in-curriculum and extra-curriculum programmes. In this case, the initiative was embedded into a summer school format, thereby extending its remit to not only being an attainment raising activity, but also one that boosts participants' social self-efficacy, socio-cultural capital and knowledge of HE.

It was the first year of delivery and was offered to students from Year 9 to Year 12 (in the 2023/24 academic year) who had previously achieved a Bronze Arts Award through UCA's programmes. These students were expected to come from a lower socio-economic strata (identified by the use of area-based indicators such as Index of Multiple Deprivation Q1 and TUNDRA Q1) having been targeted for other WP activities. The aim of the intervention is to improve arts-based attainment through the development of key cognitive and non-cognitive skills, as well as increase their social and cultural capital to boost their sense of belonging and social self-efficacy in the context of HE.

The objective of the research will be to evaluate the effectiveness of the programme by measuring whether or not students have made improvements to or gained confidence in using the key learning skills identified, as well as whether these developments contribute making HE a more desirable option for their future.

2. Programme Rationale

Context

A HEAT study found students who take part in **at least 8 hours of intensive activities** (including summer schools, multiple campus visits and other combinations of activity types) were by 12.5 percentage points **more likely to progress to HE** than their counterpart (Anthony, 2024). Summer schools are arguably the most intensive activities the University offers, both in terms of financial commitment from the institution and learning opportunities for the participants. The Silver Arts Award summer school programme was even more hour intensive than conventional summer schools. The intervention was delivered, in a hybrid fashion, through 7 hours online sessions and a 3-day residential over 2 months. There were 6 online sessions that preceded the residential on campus – these sessions alone amounted to 15 hours of engagement (i.e. 2.5 hour workshops over 6 weeks). Due to its sustained intensive sessions, the UCA summer school is expected to have a positive impact on intention to apply to HE; and to making HE a more desirable options for participants.

There is also evidence in the literature that **sustained engagement** is more likely to deliver positive outcomes than one-off interventions. A 2019 report commissioned by the OfS found there is a positive correlation between the number of activities students take part in and

improvements in their self-reported knowledge, attitudes and intentions towards HE. Therefore, a sustained and progressive programme of engagement with learners is crucial. A higher level of engagement in outreach activities is associated with greater knowledge about HE, graduate careers prospects and learner confidence in where to find information about courses, financial support and university accommodation (CFE, 2019). Sustained engagement in creative activities allows students to delve deeper into their interests, fostering a love for learning that extends beyond the classroom. Ongoing engagement would lead to greater intrinsic motivation that translates into better performance both academically and personally.

Another aspect that sets this summer school apart from its archetype is its focus on **creative arts and arts-based activities**. There have been studies making a case for the **academic, social, and societal benefits** of incorporating **creative arts** into afterschool and **summer programmes** – namely documented experiences from three nonprofits: Chicago Arts Partnerships in Education (CAPE), Young Audiences of Louisiana, and Big Thought in Dallas, Texas. The article, authored by prominent nonprofits in arts education, discussed the significant benefits of integrating creative arts into afterschool and summer programs to combat educational setbacks, particularly among low-income students.

Furthermore, arts-focused outreach are believed to provide **inclusive environments** where students from diverse backgrounds (social and/or academic abilities) can collaborate, communicate, and build social skills (Antoni et al., 2023). Such programmes help students foster greater **sense of belonging** and self-esteem through inclusive and equitable project designs that leading to increased **intrinsic motivation** and personal growth.

Residential summer schools expose students to the HE community, ecosystem and environment, thereby presenting the opportunity for them to expand their **social and cultural capital**. According to the ecological systems theory (Bronfenbrenner, 1979) parents, teachers and friends are pivotal social influencers. **Social capital** is viewed as the interaction between actors and available resources (information, norms and support networks) that are accessible to them and their ability to rely on these when needed (Bourdieu, 1986). **Cultural capital** is having knowledge of established norms, and being able to learn the skills to negotiate access to a particular culture (Lareau, 2015) – i.e. university culture. Students with higher levels of social and cultural capital (e.g: surrounded by more networks with resources) are more likely to exhibit more successful or smoother trajectories into HE. A child's educational development is, therefore, closely linked to the social and cultural capital they are endowed with that enables their **ability to navigate the pathways to HE** (Stanton-Salazar, 2011). The opportunity to grow their social network and interact with university staff and student ambassadors is particularly pertinent for students from households with no HE experience.

Although, arts skills are, unfortunately, not treated as sacrosanct elements of **attainment raising** interventions; the achievement of a Silver Arts Award certification from the UCA summer school should validate its status as developing key cognitive and non-cognitive skills

that are conducive to attainment raising efforts. Studies, such as those by Catterall, demonstrate that sustained participation in the **arts correlates** with **improved academic outcomes** and **social behaviours**. The arts provide an **inclusive platform** where all students, regardless of their academic standing, can excel and **build confidence**. The study, "Doing Good and Doing Well by Doing Arts," suggests students involved in the arts over time gain higher dividends in various **academic areas** compared to their peers (Catterall, 2009). In fact, the SAA curriculum is designed to not only improve the repertoire of arts skills, but it also has modules addressing the development of research, problem-solving skills, teamwork and social/academic self-efficacy. All of which are transferable skills determining the ability of a student to fully realise their potential and raise their attainment.

With that in mind, the summer school was designed around the Silver Arts Award programme in order to frame the intervention as part of a larger sustained outreach package for participants. Application for the programme was exclusively open to students who achieved a Bronze Arts Award through UCA's outreach efforts.

Key areas identified

Findings indicate that involvement in these creative outreach activities coincided with increased **self-efficacy**, a higher **intention to apply to HE**, and an enhanced perception of the importance of creative arts in society (Goodwin et al., 2020). Arts-centred activities foster critical thinking, **creativity**, and **problem-solving** skills, which are transferable to core academic subjects (DeMoss & Morris, 2002). Antoni et al. emphasised how **arts-based enrichment** can **enhance academic performance**, **social skills**, and **personal development**. Sustained arts activities also foster more **positive attitudes to learning** and improves student engagement by raising their **intrinsic motivation** and **sense of belonging** (Antoni et al., 2023).

In sum, this outreach intervention is believed to influence these key areas:

- A. Creative Thinking**
- B. Problem-solving** (*incl. decision-making and leadership skills*)
- C. Self-efficacy**
 - i. Academic Self-efficacy
 - ii. Social Self-efficacy
 - iii. Self-regulatory Self-efficacy (*encompassing Intrinsic Motivation*)

The summer school is designed to be attainment raising activity through the development of cognitive and non-cognitive skills, whilst simultaneously fostering **intrinsic motivation** and a greater **sense of belonging** in within a HE context. The factors underpinning the identified areas of focus are believed to interact to weave greater positive outcomes in attainment and motivation, as well as boosting intention to attend HE. By fostering creativity, confidence, and a love for learning, the programme does not only address academic deficiencies, but also, has the potential to contribute to the holistic development of widening participation students.

A) Creative Thinking

According to Guilford's (1967) 'Divergent and Convergent' thinking theory, creative thinking involves both generating multiple ideas (divergent thinking) and selecting the best solution (convergent thinking). Similarly, the GenePlore Model (Finek et al., 1992) defined creative thinking skills as two-phased: 1. Generative (creating mental representations); and 2. Exploratory (evaluating and refining ideas).

Creative thinking plays a pivotal role for learners, as it fosters cognitive and personal development. Many industries value creative problem-solving, making it a crucial skill for future job markets (Robinson, 2011). Putting those skills in practice hones crucial skills that would not only lead to academic success but also to improving in-demand transferable skills that are invaluable when joining the labour market. The literature suggests creative thinking is the product of these following 5 components: Fluency; Flexibility; Originality; Elaboration; and Problem Sensitivity. These are detailed in Table 1 below.

Table 1: Key components of Creative Thinking

Key Components of 'Creative Thinking'	Link to Creative Thinking
1. Fluency	The ability to generate a large number of ideas or solutions in response to a given problem (Guilford, 1967).
2. Flexibility	The capacity to think in diverse ways and shift perspectives when approaching a problem (Torrance, 1966).
3. Originality	The ability to produce novel and unique ideas that stand out from conventional thinking (Runco & Jaeger, 2012).
4. Elaboration	The skill of adding details to an idea, refining and expanding upon initial thoughts (Amabile, 1996)
5. Problem Sensitivity	Recognizing problems or challenges that others may overlook and identifying opportunities for creative solutions (Sternberg & Lubart, 1995).

How can creative thinking increase attainment?

The wider literature reveals a positive association between creative thinking and the development of pre-requisite skills believed to underpin academic success. Amabile's 'Componential Model of Creativity' (1996) suggests creativity is influenced by domain-relevant skills, creativity-relevant processes, intrinsic motivation, and environmental factors. Drawn from multiple theoretical foundations, Table 2 presents how creative thinking feeds into the development of other core cognitive and non-cognitive skills that are often linked to increased academic performance.

Table 2: Creative Thinking Links to other Attainment Raising and Success Components

Linked to Creative Thinking	Components Influenced by Creative Thinking
Problem solving	Problem solving involves resolving issues or challenges to achieve a desired outcome. Creative thinking enables learners to approach challenges from multiple perspectives, leading to innovative solutions (Sternberg & Lubart, 1995).

Engagement and Motivation	<p>Engagement refers to the level of active participation, attention, and emotional involvement an individual demonstrates in a task, learning process, or activity. It encompasses behavioural, emotional, and cognitive dimensions (Fredricks, Blumenfeld, & Paris, 2004).</p> <p>Motivation is the internal drive or external influence that compels an individual to act, pursue goals, or sustain effort in a particular task. It is often categorized into intrinsic motivation (driven by internal rewards, such as curiosity or enjoyment) and extrinsic motivation (driven by external factors, such as rewards or recognition) (Ryan & Deci, 2000).</p> <p>A creative learning environment increases students' intrinsic motivation, making learning more enjoyable and interactive (Deci & Ryan, 1985).</p>
Critical Thinking	<p>Critical thinking is the ability to analyze, evaluate, and synthesize information in a logical and reasoned manner to form a well-justified judgment or decision. It involves questioning assumptions, identifying biases, and using evidence-based reasoning (Paul & Elder, 2006; Ennis, 1987).</p> <p>Creativity enhances analytical skills by encouraging learners to evaluate and refine their ideas (Runco & Jaeger, 2012).</p>
Adaptability	<p>In an ever-changing world, creativity helps students adapt to new situations and think flexibly (Csikszentmihalyi, 1996).</p>
Self-expression and confidence	<p>Encouraging creativity allows learners to articulate unique ideas, improving their confidence and communication skills (Amabile, 1996).</p>

Why does creative thinking matter to widening participation?

As discussed in the previous section, creative thinking is arguably a core skill needed in raising aspirations and boosting academic success. However, students from lower-economic backgrounds have been reported to face systemic barriers to developing creative thinking skills. The pedagogical focus on standardised testing and rote learning in disadvantaged schools limits students' ability to develop creative problem-solving skills (Robinson, 2011). Students from lower-income backgrounds have less opportunities to engage in creative activities due to limited access to educational materials and extracurricular programs (Davis, 2013). This, in turn, has adverse effects on self-efficacy, which is pivotal to creative engagement, and disadvantaged learners often struggle with confidence (Bandura, 1997).

By integrating arts-based content into a curriculum helps students develop cognitive flexibility, problem solving and creative thinking (DeMoss & Morris, 2002). The SAA summer school presents students from disadvantaged backgrounds the opportunity to access a highly intensive arts programme which can potentially elevate their creative thinking skills. Thereby, reducing the skills deficiency in disadvantaged learners.

B. Problem-solving

Problem solving is the cognitive process of identifying, analysing, and resolving difficulties or obstacles to achieve a desired goal. It involves critical thinking, **decision-making**, and logical reasoning to develop and implement effective solutions. Mayer (1992) defines problem solving as "a cognitive process directed at transforming a given situation into a goal situation when no obvious method of solution is available". Table 3 illustrates key components of problem-solving that is drawn from extensive studies.

Table 3: Key components of Problem Solving

Key Components of 'Problem Solving'	Link to Problem Solving
1. Problem Identification	The ability to recognize that a problem exists and define it clearly. Effective problem solving begins with accurately defining the problem, as misidentification can lead to ineffective solutions (Mayer, 1992).
2. Information Gathering & Analysis	Collecting relevant data and analysing factors contributing to the problem. A thorough analysis of information leads to a deeper understanding of the problem space, increasing the likelihood of a successful resolution (Newell & Simon, 1972)
3. Divergent Thinking	'Divergent Thinking' relates to generating possible solutions through brainstorming and considering multiple approaches to a solving a problem. The ability to generate diverse solutions is critical for effective problem solving, as it expands the range of potential solutions beyond the obvious (Guilford, 1967).
4. Convergent Thinking	Convergent thinking involves evaluating and selecting the best solution, by assessing the feasibility, effectiveness and implications of each solution. Problem solvers must apply logical reasoning to select the most viable solution from available alternatives (Sternberg, 1995).
5. Implementation of the Solution / Decision Making	Execution is a crucial phase in problem solving, requiring adaptability and responsiveness to unforeseen challenges (Polya, 1945). The implementation of the chosen solution is equally important to having the ability to identify the problem. It evidences the decision-making abilities of the learner. This takes creative thinking a step further by practically applying the steps to achieving a certain objective. Being able to monitor the effectiveness of the

implementation and make the necessary adjustments is part of this component.

As discussed in previous sections, problem-solving is component of creative thinking. For the purpose of this study we are treating the two as separate but inter-related domains. This will be further discussed in the methodology section.

How can problem solving increase attainment?

Research has shown that students with strong problem-solving abilities tend to achieve higher educational outcomes due to their ability to navigate challenges effectively. Table 4 below summarises the links between the cognitive skills of problem-solving and attainment raising.

Table 4: Problem Solving Links to other Attainment Raising and Success Components

Linked to Problem Solving	Components Influenced by Problem Solving
<p>Cognitive Development</p>	<p>Cognitive processes involved in problem-solving—such as critical thinking, analysis, and synthesis—directly influence academic achievement across multiple subjects. Problem-solving fosters higher-order thinking skills, such as analysis, evaluation, and application, which are essential for academic success. It has been reported that students who engage in problem-solving activities develop stronger cognitive skills, which directly impact their academic performance and attainment (Mayer, 1998).</p>
<p>Active Learning and Engagement</p>	<p>Problem-based learning (PBL), which emphasizes active problem-solving, improves deep learning and retention in students compared to traditional instructional methods. Active learning through problem-solving increases student engagement, which is a significant predictor of academic attainment (Hmelo-Silver, 2004).</p>
<p>Resilience and Adaptability</p>	<p>The role of resilience and adaptability in academic success is often underestimated given the prevailing assumption that academic success is predominantly determined by IQ. However, a study found that self-discipline and problem-solving skills were better predictors of academic success than IQ.</p> <p>Resilient learners who employ problem-solving strategies are more likely to overcome academic difficulties and achieve higher attainment levels. Additionally, students who actively developed problem-solving strategies demonstrated higher GPAs</p>

	and long-term academic success (Duckworth & Seligman, 2005).
Improving Independent Learning & Metacognition	Problem-solving helps students become independent learners who can manage their own academic progress. Effective problem solvers develop self-regulation and metacognitive skills, allowing them to monitor and adjust their learning strategies. This fosters a growth mindset, which is linked to higher academic attainment (Dweck, 2006).

Problem solving influences an array of domains linked to greater academic success, namely: research and leadership skills. These two modules form a significant part of the SAA curriculum and is expected to tap into elements of problem solving skills. Therefore, the added element of problem-solving to the SAA summer school would improve the engagement of students and is intended to positively influence learning outcomes.

Why does problem solving matter to widening participation?

Disadvantaged students often face unique academic, social, and economic barriers that can affect their learning and future opportunities. Developing problem-solving skills enables students to navigate complex life situations, fostering resilience and adaptability. This is particularly important for those from low socioeconomic backgrounds, as it equips them to handle challenges both in and out of the classroom (Vadivel et al., 2023). Schools, educators, and policymakers should prioritize problem-solving education to give these students the tools they need to succeed.

C) Self-Efficacy

Self-efficacy refers to ‘beliefs in one’s capabilities to organise and execute the courses of action required to produce given attainments’ (Bandura, 1997, p.3). According to social cognitive theory, there are four main sources of information that develop students’ self-efficacy. These are detailed in Table 5 below.

Table 5: Key components of Self-Efficacy

Key Components of 'Self Efficacy'	Link to Self-Efficacy
Mastery experiences	Mastery experiences are the most powerful source of creating a strong sense of efficacy because they provide students authentic evidence that they have the capability to succeed at the task (Palmer, 2006). Successfully completing a task boosts one’s confidence in their ability to handle similar tasks in the future. Past successes build a strong foundation for self-efficacy (Bandura, 1997).
Vicarious (observational) experiences	Students obtain information about their own capabilities by observing others, especially peers, who offer suitable possibilities for comparison (Schunk, 1987).

Social persuasions	This social persuasion helps students develop beliefs of self-efficacy. Persuasive communication and evaluative feedback is most effective when people who provide this information are viewed by students as knowledgeable and reliable, and the information is realistic (Bong & Skaalvik, 2003).
Physiological and psychological states	The fourth source of efficacy information that people draw from their physiological, emotional and mood states. A positive mood state strengthens someone’s self-efficacy, a dejected mood state enfeebles it (Van Dinther, Dochy, & Segers, 2011).

TASO argues that, compared to confidence, “self-efficacy is a more specific construct as it is always defined in relation to a task, goal, or domain” (Thompson et al, 2022). For the purposes of the summer school, a more finely-grained taxonomy to the sector has been developed to more precisely capture the different domains of self-efficacy (academic, social and self-regulatory/intrinsic motivation). The emerging findings on self-efficacy was reviewed through the literature and is presented in Table 6 below. This typology has been drawn through a inductive-thematic analysis of the summer school’s collected qualitative data. This self-efficacy typology stems from Albert Bandura’s social cognitive theory (1986) and theory of self-efficacy (1997); and Schunk’s 1991 research into academic motivation and self-efficacy.

Table 6: Self-efficacy typology and Links to other Attainment Raising and Success Components

Self-Efficacy Typology	Definition and Link to attainment raising
Academic Self Efficacy	<p>Academic self-efficacy refers to students’ beliefs in their capabilities to perform specific academic tasks at designated levels of difficulty - <i>Schunk, 1991</i></p> <p>The stronger the academic self-efficacy, the more intrinsically motivated a student is to engage in learning. Students with high academic self-efficacy set challenging but achievable academic goals and are more likely to persist in working toward those goals.</p>
Social Self-Efficacy	<p>Social self-efficacy refers to an individual's belief in their ability to successfully engage in social interactions and build relationships with others. It reflects confidence in handling social situations, such as starting conversations, making friends, or dealing with conflicts.</p> <p>It is an individual's confidence in their ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships.</p> <p>- Smith & Betz, 2000</p>

	A student with high social self-efficacy feels comfortable speaking up in class discussions, making new friends, and joining group activities. Greater levels of social efficacy would remove social barriers (e.g: fear of change, anxieties) to achieving greater academic success.
Self-Regulatory Self-Efficacy	<p>Self-regulation of motivation and behaviour relies on self-efficacy beliefs in the individual’s ability to exert control over their own functioning - Bandura, 1997</p> <p>This belief impacts how individuals approach tasks, particularly tasks that require sustained effort over time. If they feel confident about their ability to manage their own behaviours (like staying focused, managing time, or coping with stress), they are more likely to put in the effort needed to succeed in their studies.</p>

How can self-efficacy increase attainment?

Research has found a correlation between self-efficacy and academic performance. Students who have higher levels of self-efficacy are more likely to “participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher academic performance level” (Schunk & Pajares, 2002). The link between self-efficacy and academic success is summarised in Table 6. Learners with high academic and self-regulatory self-efficacy are pre-disposed to developing greater intrinsic motivation to increase their attainment levels. Meanwhile, students with higher social self-efficacy are more likely to participate in class discussions which would benefit their learning process and remove social barriers to learning and progression through HE.

Why does self-efficacy matter for widening participation?

Self-efficacy theory suggests that it is the responsibility of the government and society to provide everyone with sufficient opportunities to engage in mastery experiences, receive positive social persuasion and witness positively reinforcing models that will engender a strong sense of self-efficacy (Gallagher, 2021). Van Dinther, Dochy & Segers (2011) found that HE intervention programmes influenced and improved students’ self-efficacy and that programmes which intentionally tried to embed social cognitive theory were more effective at developing self-efficacy.

3. Programme Design

Programme Aims

The Silver Arts Award Summer School is an arts-centred attainment raising intervention which was piloted for the first time in the 2023/24 academic year. It must be noted that the Silver Arts Award is an established programme that is externally designed and rolled-out on a national scale. The UCA summer school based their summer school around a prescribed arts programme which was not originally developed to deliver on specific outreach outcomes.

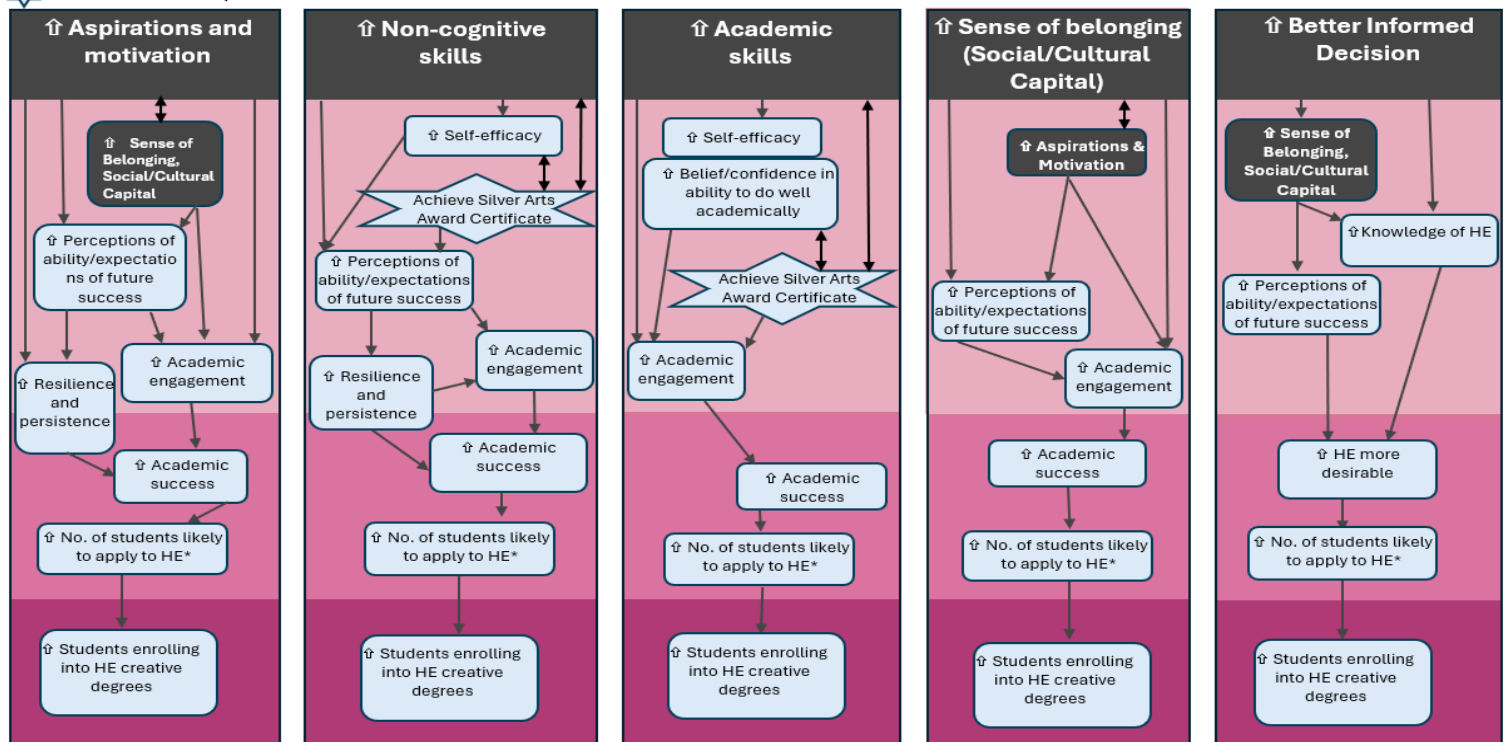
There is however empirical evidence suggesting this pilot format of the summer school could deliver on the intended aims and outcomes elucidated in this section of the report.

As illustrated in the Theory of Change for this programme (see Appendix A), the desired long-term outcome is to **increase progression to HE for the disadvantaged participants** taking part in this outreach intervention, as well as their enrolment into HE creative degrees. The short-term outcomes are empirically-formulated from existing literature surrounding summer schools and creative arts activities. These are:

- SO1. Improve Academic Success:** Increase transferable skills linked to academic attainment
- SO2. Develop and Apply Key (Cognitive) Skills:** To provide opportunities for students to not only develop key learning skills (i.e: creative thinking, problem-solving, research) but also to practically apply those skills to achieve the Silver Arts Award certification
- SO3. Increase Self-efficacy (Non-Cognitive Skills):** To increase students' confidence in skills attributed with the Silver Arts Award curriculum
- SO4. Increase Social and Cultural Capital:** To provide opportunities for students who would not otherwise experience arts-centred extra-curriculum in a HE context to expand their network and resources available to them **Sense of Belonging:** Students exhibit an increased sense of belonging (both socially and academically) through the summer school residential

UCA Silver Arts Award Summer School Programme Causal Pathways

- Overarching Themes
- Short-term outcomes
- Medium-term outcomes
- Long-term impact
- ★ Intervention Output



All the above are believed to have positive knock-on effects for **raising aspirations and motivating** students from widening participation backgrounds which would eventually lead to, the desired long-term outcome of, increased progression to HE (*refer to Causal Pathway in Appendix B for greater clarity*). To consolidate the prerequisites associated with successful progression to HE in the short-term, the programme aims to support participants in improving the following skills:

- Creative Thinking
- Problem Solving
 - Decision Making
 - Leadership Skills
- Self-Efficacy
 - Academic Self-Efficacy
 - Social Self-Efficacy
 - Self-regulatory Self-Efficacy

Table 7: Programme’s link to key areas identified

Key Areas Identified	Development of skills/resources through Silver Arts Award
Creative Thinking	<ul style="list-style-type: none"> • Arts Award Unit 1 Part A & B - development of individual projects • Arts Award as a whole
Problem Solving <i>(Leadership, Research, Decision Making)</i>	<ul style="list-style-type: none"> • Arts Award Unit 1 Part A and Unit 2 (all) • Group project Arts Award unit 2
Self-Efficacy <i>(Confidence, Academic, Social, Self-regulatory)</i>	<ul style="list-style-type: none"> • Arts Award - Unit 1 Part C: Research Project • Exhibition at end of residential - seeing their work on show in the HE environment gives a sense of 'realisation' • Socialising opportunities during residential • Interactive group games built into online sessions
Social and Cultural Capital <i>(Sense of belonging, HE knowledge, Network expansion)</i>	<ul style="list-style-type: none"> • Staying on campus (+given tour) and interacting with UCA staff • Opportunities provided to engage with Ambassadors in formal (online/offline sessions) and informal (evenings/free time during residential) settings • ‘Creative Careers’ talk on Day 1 gives information on different university course options

By repeating skills, students are able to develop mastery experiences through the process of seeing their progression each week. They will also be able to see each other's work and provide peer feedback to each other's contributions and final exhibition. They will be asked to present on their output from the online sessions, in person on Day 1 of the residential, this is intended to help them reflect on their work and learn from each other. The group being of mixed ages and year groups would yield differences in techniques, skills and approaches that can contribute to advancing their skills' development.

Students will take part in an extensive reflective session at the end of the programme in guise of an online focus group discussion. This aims to allow participants the space to reflect on the skills they have developed throughout the programme and help them realise the metacognitive links to how these can be utilised for greater academic success in the creative arts sector. By creating this opportunity for reflection, it is hoped that students will enhance their overall academic self-efficacy.

Programme Overview

Table 8: UCA Silver Arts Award Summer School Delivery Plan

Session	Date	Location
<i>PRE Summer School Online Drop In Sessions</i>		
Session 1	15 th June 2024	Online
Session 2	22 nd June 2024	Online
Session 3	29 th June 2024	Online
Session 4	6 th July 2024	Online
Session 5	13 th July 2024	Online
Session 6	20 th July 2024	Online
<i>Summer School Residential</i>		
Session 7	24 th July 2024	Uni Campus
Session 8	25 th July 2024	Uni Campus
Session 9	26 th July 2024	Uni Campus
<i>POST Summer School Online Drop In Sessions</i>		
Session 10	7 th August 2024	Online
Session 11	21 st August 2024	Online
Session 12 - FGD	7 th September 2024	Online

Table 8: Silver Arts Award Summer School Format

Session	Location/ Duration	Aim	Description
Session 1: Intro to Part A & Personal Projects	Online 2.5hrs	✓	Students must decide which of the 4 disciplines they want to develop: drawing, 3d, photography or fashion. They can then complete the workbook questions and upload their answers to Padlet before the next session.
Session 2: Online Drop in 1 & Creative Workshop	Online 2.5hrs	✓	Student updates and review answers from last session on Padlet, and set task to complete next workbook questions for next session. Creative Workshop – 'Utopia Drawing Questions': Students respond to a series of questions which asks them to draw their response to questions they are asked via the online platform we are using. This will take around 40 - 45 mins with time for students to pin up work or mount into workbook and a feedback session for 5-10mins. Questions will be based around what makes the students themselves, what a 'utopia' for them looks like. It should get them to link about how they want to shape life and the world around them. Students shared their outcomes on Padlet and group discussion was encouraged.
Session 3: Online Drop in 2 & Creative Workshop	Online 2.5hrs	✓	Creative workshop: 'Logo Printmaking': Students to take cues from their drawings and create a graphic logo which represents their 'Utopian World'. They will produce this via rubber stamp printing using Eva Foam and cardboard/greyboard.

			Students will receive an online demo then produce their own outcomes. Artist Stephen Fowler will be used as an introduction. Students shared their outcomes on Padlet and group discussion was encouraged.
Session 4: Online Drop in 3 & Creative Workshop	Online 2.5hrs	✓	Creative workshop: 'Applique'. Students learnt applique textiles techniques following a live demo from tutor. Students shared their outcomes on Padlet and group discussion was encouraged.
Session 5: Online Drop in 4 & Creative Workshop	Online 2.5hrs	✓	Creative workshop: 'Paper weaving'. Students learnt paper weaving techniques following a live demo from tutor. Students shared their outcomes on Padlet and group discussion was encouraged.
Session 6: Online Drop in 5 & Creative Workshop	Online 2.5hrs	✓	Sharing of final pieces – group discussion and share on Padlet. Presentation on 'what to expect' from residential – staff, what to bring, code of conduct etc.
Session 7: Summer School Day 1	Campus - Residential	✓	AM – students presented final pieces to the group and spoke about their challenges, influences, successes and plans for exhibition display. PM – introduction of Arts Award Unit 2. Workshop on 'what makes a good leader'. Students identified which leadership skills they wanted to develop during the exhibition install. Students put in exhibition planning teams – each of the 3 teams began to plan different elements of the exhibition supported by a tutor (marketing, event management & installation).

			Evening – artist presentations from local artists & designers. Creative workshop – Calligraphy.
Session 8: Summer School Day 2	Campus - Residential	✓	AM – trip to Margate, students experienced Turner Contemporary exhibition, some smaller independent galleries & some free time to explore. PM – write up of review of exhibition. Students went back into their teams and continued planning the exhibition.
Session 9: Summer School Day 3	Campus - Residential	✓	AM – Exhibition install, teams finalising their contributions. PM – Exhibition open to public. End of residential.
Session 10: Online Drop in 1	Online 2.5hrs	✓	Support to finalise writing up some sections of workbook.
Session 11 – Online Drop in 2	Online 2.5hrs	✓	General feedback and support to complete workbook – individualised to each student depending on what they had left to complete. Info on what to expect for Arts Award submission – dates, moderation etc.
Session 12: Online Reflection Session / FGD	Online 1.5hrs	<ul style="list-style-type: none"> ✓ Creating pathways between skills acquired and future academic success ✓ Refine metacognitive strategies ✓ Boost confidence and self-efficacy 	Focus group encouraging individual qualitative feedback. Not compulsory.

4. Methodology

Research Aims and Questions

The aim of the research is to evaluate whether students have made any significant improvements in key learning skills through participation in the Silver Arts Award Summer School programme. It also seeks to understand whether the project's wider intended outcomes were achieved:

- Did the intervention engage with the specified target group?
- Did participants gain relevant skills and confidence to achieve academic success within the programme?
- Did participants gain relevant skills and confidence to achieve academic success beyond the programme?
- Was the programme delivered as intended? Did students effectively engage with the programme material?

Research Design

The evaluation has been drafted based on the ToC outcomes and research questions. A mixed methods approach has been adopted for this research study, with tools designed to capture qualitative and quantitative data through methods described under the 'Data Collection' section below.

Participants

This pilot of the intervention worked with Year 9 to Year 12 students from low socio-economic backgrounds (identified by the use of metrics such as area-based indicators). Since this was an exclusive self-sign up event, whereby only students who had previously engaged in an outreach activity with UCA were eligible to apply, it was expected that the majority would come from widening participation backgrounds.

The intended widening participation targeting criteria is as follows:

1. Live in an area deemed to have lower than expected participation in Higher Education as specified by other measures, including **POLAR 4, Tundra** and **IMD**.
2. Are currently, or have previously been, **in local authority care**.

However, there were no specific exclusion criteria in place due to low sign-ups. But for the purpose of the research, only participants who attended at least 3 of the 6 pre-residential online sessions **AND** at least 2 of 3 days of the residential were included in the analysis presented in the 'Findings' section. If students participation was below this criteria their level of engagement was deemed too low for the intervention to have any effect on them.

Data Collection

To measure the desired short-term outcomes of the programme the following methods were used:

Pre-Post Survey

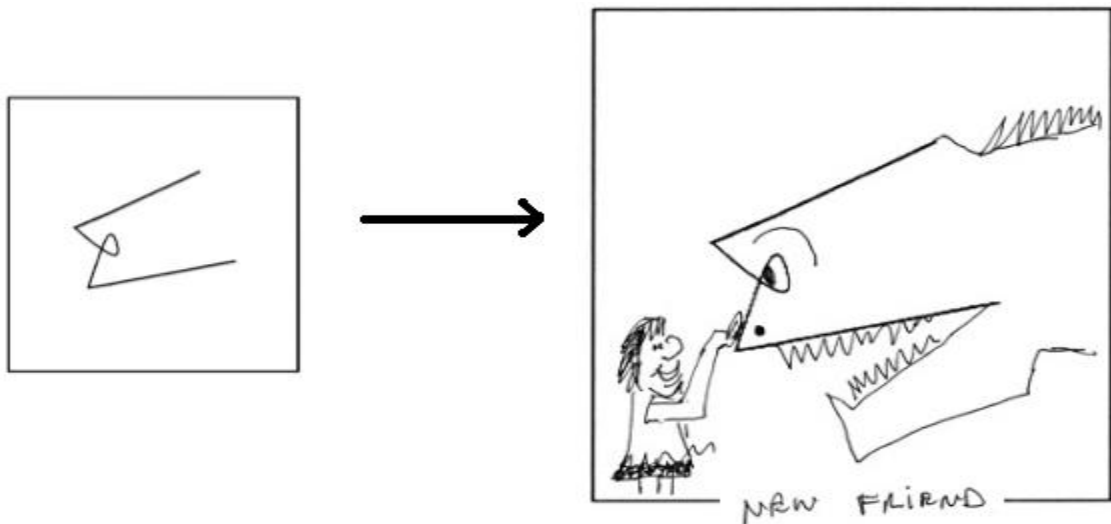
A pre-survey was appended to the application form which yielded a 100% response rate. The post-survey was paper-based and was administered on the last day of the residential summer school. This led to 100% response rates from attendees (there was an absentee on the day, but the delivery staff subsequently secured their post-response). There were a number of incomplete or missing data from post-surveys – whereby students gave multiple responses to scales' questions or skipped questions – which complicated the analysis. There will need to be stricter overseeing, by staff and student ambassadors, of participants in future programmes.

The survey items were largely based off TASO's Access and Success Questionnaire¹ (ASQ) validated scales pertaining to: intentions to apply to HE, academic success, self-efficacy, cognitive and metacognitive strategies. The 'Findings' section will highlight how tools utilised, despite being validated, were not fit for purpose in this context, leading contradictory quantitative and qualitative findings. The same tools were used to evaluate students of different: age groups, skills endowment, level of attainment and exposure to HE, among other variable factors. We attempted to capture the data of a heterogenous group's experience and progress through a tool which did not account for these nuances in our sample group.

Pre-Post Interactive Poll

To further consolidate data on skills gained as a result of the intervention, a pre-post poll was embedded in the online and offline sessions (Session 2 and Session 9 – Day 3 of Residential). The Pre and Post poll questions were similar and pertained to the themes of: attitudes to learning, engagement, self-efficacy, creative thinking and problem-solving skills.

The Post poll was designed to take place in Session 9, at the beginning of the last day of the residential summer school. It was agreed with UCA's delivery team, that instead of having another poll during the online session, to ensure greater response rate and to facilitate interaction during its practical element, it should be administered offline.



One of the poll items was a practical activity derived from the 'Torrance Tests of Creative Thinking'¹ (Torrance, 1965), a creativity-oriented alternative to IQ testing to measure the change in creative thinking skills. This evaluation tool is an interactive activity whereby students are given an incomplete drawing and must interpret it in their own way – see example above.

There were no missing data from the polls and all participants completed the incomplete drawing exercise. From qualitative feedback it appears that this evaluation tool was perceived by students as a creative workshop activity and were therefore more engaged with the polls than they were with the post-survey.

Student Handbook

The pilot intervention made exclusive use of the externally provided student handbook designed by the SAA awarding body. There was therefore limited scope to embed measurements tools within the handbook's activities. There is however an existing 'reflective' section of the handbook which has been used to draw further qualitative feedback on the skills gained post-intervention. This section fed into the internal metric aiding staff to produce an overall grade for participants.

Internal Attainment Metric

As part of the evaluation plan, a metric to gauge distance travelled in attainment pre-post events was proposed. Two activities, picture completion and picture construction, derived from the Torrance Test of Creativity was suggested as a starting point to develop a bespoke internal metric for the intervention. It proved easier to grade the 'picture completion' exercise than the one using shapes. Therefore, the staff decided to retain activity 2 (presented in Tab 10) and started assessing the students from Session 2 onwards by assigning a grade (A-C) to the picture completion exercise in the online poll.

¹ [Torrance Tests of Creative Thinking – John Dabell](#)

Table 10: Suggested Torrance Test of Creativity Tests²

<i>Name of Test and Subtests</i>	<i>Description</i>	<i>Rationale</i>	<i>Creative Factors</i>
Activity 1 <i>Picture Construction</i>	The person constructs a picture using a pear shape or jelly-bean shape as a stimulus on the page. The shape must be an integral part of the composition.	This activity gets at the tendency to find a purpose for something that has no definite purpose and to elaborate it so that a clear purpose emerges.	<ul style="list-style-type: none"> • Originality • Abstractness of titles • Elaboration • Checklist of creative strengths
Activity 2 <i>Picture Completion</i>	This activity requires a person to use 10 incomplete figures to make and to name (label) an object or picture.	This activity calls into play the need to structure, integrate and present an object, scene or situation.	<ul style="list-style-type: none"> • Fluency • Originality • Abstractness of titles • Elaboration • Resistance to premature closure • Checklist of creative strengths

As an extension to this internal metric, the delivery staff were requested to discreetly assess the students throughout the programme. The Torrance test was an additional factor to the curriculum that was introduced as part of the evaluation plan. However, the SAA curriculum and the creative workshops being held offered the staff adequate material to assess the pre-post cognitive progress of participants – especially their creativity. The internal grading system developed by the UCA staff was used to assess their creative outputs and the use of their student handbook. The grading matrix and components is depicted in Table 11 below:

Table 11: UCA’s Internal Metric for Creativity Matrix

<i>Components</i>	<i>Definition</i>	A: High Creativity	B: Medium Creativity	C: Low Creativity	Grade
1. Originality	<i>How unique is their work</i>				
2. Elaboration	<i>How detailed is their work</i>				
3. Resistance to premature closure	<i>How open minded/inquisitive is their work</i>				
Overall Grade					

Focus Groups

An online focus group discussion (FGD) was carried out through Microsoft Teams with the students post-residential. These were online drop in sessions where attendance was not compulsory. These were facilitated by the staff in presence of trained student ambassadors. KMPF delivered an FGD training session for the UCA outreach staff as

² Example of [torrance-creativity-test.pdf](#)

well as student ambassadors working on the event ahead of the discussion. The data was recorded and transcribed by UCA student ambassadors.

The FGD did not include sensitive topics for discussion, but was rather a semi-structured, guided reflection discussing their experiences on the programme and how they feel they have developed their skillset. In so doing, the study incorporated student voice into the evaluation design, as the participants were given the opportunity to talk about what they felt they have gained from the programme and areas where the programme may need to be adapted. The FGDs are also designed to inform process evaluation and gain insights into how the programme can be tailored to the specific needs of the targeted beneficiaries in future iterations of the programme.

External Attainment Metric (Arts Awards)

There SAA presents us with a concrete attainment measure in form of the certification students are awarded after completing the curriculum. The art project they work on during the intervention is sent off to Trinity College London, the awarding body, for assessment and are awarded a certificate if they achieve a 'pass'. Successfully completing the certification is a proxy of persistent engagement over 3 months, perseverance and self-efficacy skills the students exhibited throughout the programme.

Implementers' Interview

All staff and student ambassadors who were involved in the programme design and delivery were sent an open-ended survey to collect qualitative feedback on the event. The UCA team used the schedule to conduct an implementers' focus group discussion after the last session was delivered. The discussion was process-evaluation oriented with questions regarding roles and thoughts on whether the programme was delivered as intended. The interview was transcribed and passed on to the researcher.

Data Analysis Methods

The Wilcoxon Signed Rank Test statistical test was used in conducting the quantitative analysis. The Wilcoxon Signed Rank Test is used to compare two related samples and to conduct a paired difference test of repeated measurements on a single sample in order to assess whether their population means ranks differ. This analysis would confirm whether the programme elicited a statistically significant change in attitudes and (non)cognitive skills of the participants. The IBM SPSS Statistics package was used to process this analysis. All of the tests were conducted at the 95 percent confidence level.

Both a deductive-thematic and inductive-reflexive approach was taken for the qualitative analysis. Since the qualitative data sets collected through the handbook and the FGDs were both semi-structured in nature, there were existing themes that had to be explored, such as: creative thinking, problem-solving, self-efficacy, sense of belonging, attitudes to learning and intent towards HE. However, since the FGDs were about empowering students' voices, an

inductive analysis drew a more comprehensive and nuanced narrative than if only preconceived themes were to be considered.

As previously mentioned, the TASO designed ASQ items were, retrospectively, deemed unfit for the purpose of this intervention. Firstly, the target group ranged from Year 9 to Year 12, therefore the participants are at different starting points in terms of their knowledge and perception of HE – as well as their cognitive and non-cognitive skills. The survey items were therefore not age and level appropriate. Secondly, although validated, the scales are not adequately narrowly-defined to evaluate arts-based attainment raising activities and its nuanced outcomes. This has led to gross contradictions during the data triangulation exercise. Due to time constraints for the researcher, a bespoke survey could not be developed in time for the purposes of this intervention but the plan is to design a bespoke survey for future iterations.

The analysis in the ‘Findings’ sections has thus been organised thematically to reflect the ToC outcomes and interrelated sub-outcomes drawn from the literature review presented in the ‘Programme Rationale’ section. A mixed methods narrative is thus built to demonstrate the intertwined outcomes of the intervention.

5. Findings

Number of Participants

The self-sign up intervention was open to students studying in Year 9 to Year 12 (aged between 14 and 17). A total of 23 students signed up to the event, but 3 of them withdrew from the programme before Session 7. The data for the 20 participants who took part in at least 3 of the pre-residential online sessions; and attended at least 2 days of the on-campus programme has been included in the analysis.

Table 12: Number of participants by Year of Study

Year of Study of Participants	%	n
Year 9	50%	10
Year 10	35%	7
Year 11	10%	2
Year 12	5%	1
<i>Total</i>	100%	20

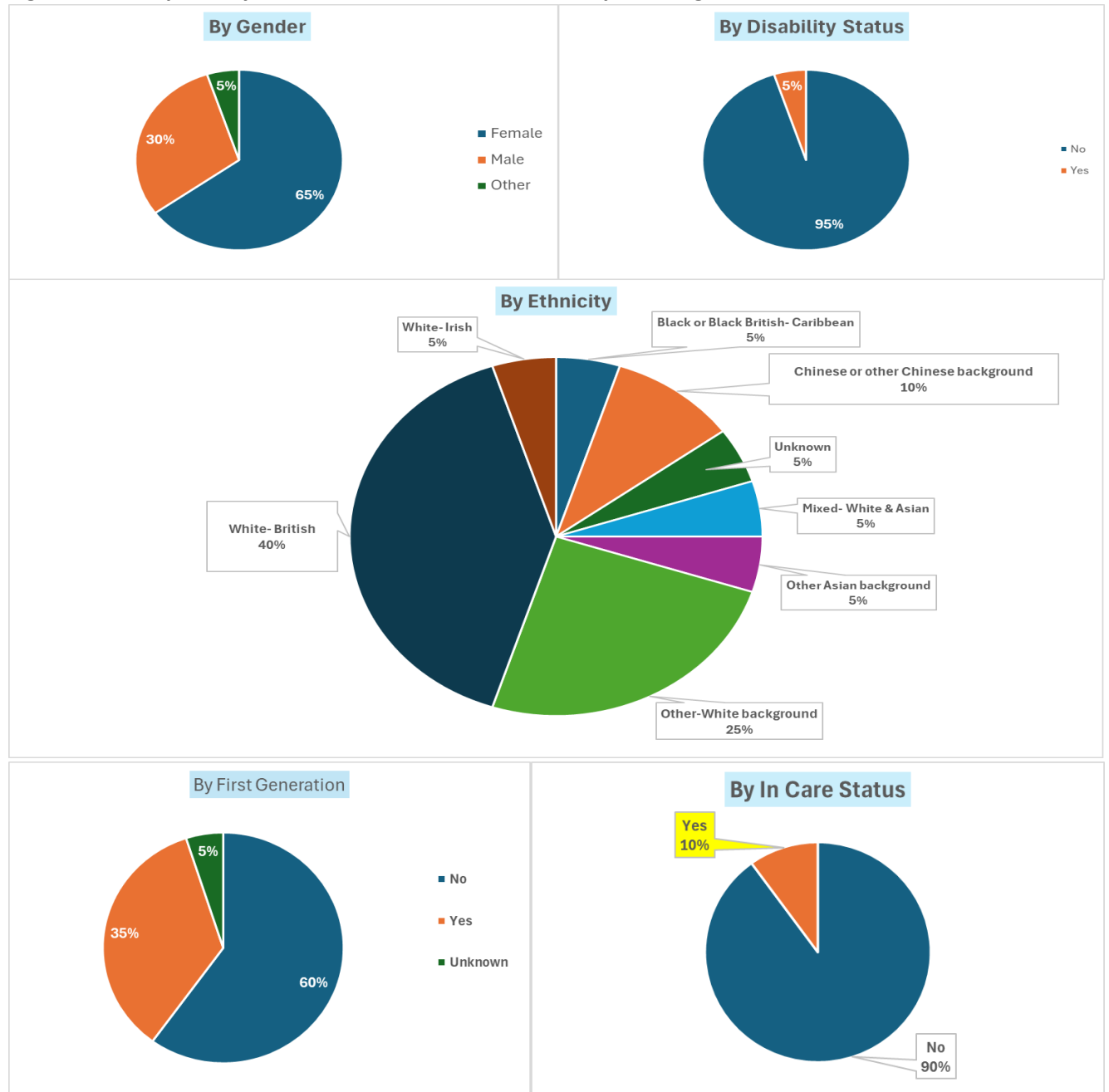
As presented in Table 12, 50 percent of the participants were Year 9 students, whilst only one of was a Year 12 student who would be at the stage of applying to university. This could have led to diverging interpretation of the survey questions or even the programme curriculum itself.

Demographic Data

Figure 1 demonstrates the data by various social characteristics. There were disproportionately more female participants than male participants in the group – 35

percentage points more (n=7). There was one student who reported a disability. And the breakdown by ethnic background revealed that as expected the majority of participants were White-British or other white backgrounds (65%, n=13). All other BAMEs group represented only 5 percent (n=1) of the sample group, except for Chinese students who represented 10 percent of the group (n=2).

Figure 1: Participants by socio-economic characteristics, in percentages

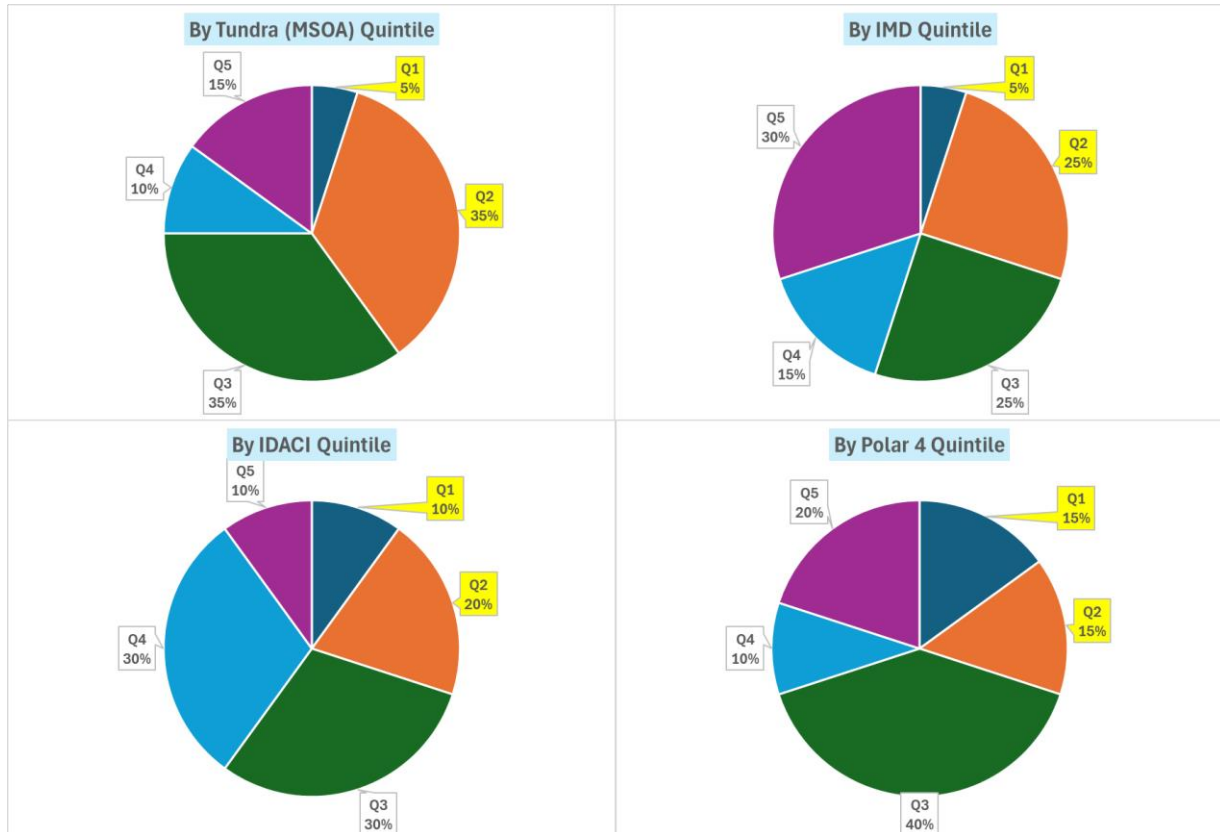


Data filtered by whether participants could be the first in their family to attend HE, showed that only 35% (n=7) came from such background. Therefore, it can be postulated, that the majority of the participants already had exposure to HE through the social and cultural capital they had access to through their parents. These students are more likely to be already highly

motivated. Free school meal eligibility data was not collected. However, there were 2 care-experienced participants who are a priority target group for the UniConnect partnership.

These figures suggest the intervention appealed more to female students and students with degree holding parents. In the future, recruitment strategies can be altered to try and appeal more to different widening participation sub-groups.

Figure 2: Participants by area-based indicators of socio-economic backgrounds, in percentages



In terms of targeting by area-based indicators of low socio-economic backgrounds, such as Index of Multiple Deprivation (IMD) and low participation in education like TUNDRA, the programme recorded lower proportions of participants from the two most disadvantaged quintiles.

The majority of participants (60%) came from TUNDRA Quintiles³ 3 and 5, which are the areas with the highest proportion of young people participating in HE. In contrast, as illustrated in Figure 2, only 40 percent (n=8) of participants came from an underrepresented area, Quintiles 1 and 2, as measured by TUNDRA. A similar trend is revealed for the other indicators of deprivation captured in the dataset (see Fig.2). Table 13 more starkly illustrates the underrepresentation of widening participation students in the sample with only 2 participants at most being identified as belonging to the lowest quintile.

³ Based off MSOA TUNDRA data

Table 13: Participants by area-based indicators of socio-economic backgrounds, in percentages and numbers (N=20)

For sample (N = 20)	TUNDRA Quintile		IDACI Quintile		IMD Quintile	
<i>Bottom Quintiles</i>	Q1	Q2	Q1	Q2	Q1	Q2
Number of Participants	1	7	2	4	1	5
Percentage of Participants	5%	35%	10%	20%	5%	25%

Outcomes Evaluation

The following themes were identified through juxtaposing TASO’s ‘Attainment-Raising MOAT’⁴ (Mapping Outcomes and Activities Tool) framework on a canvas of empirically proven outreach outcomes from the wider literature. The empirical literature review was presented under ‘Programme Rationale’ of this paper; while the MOAT linked back to the original ToC outcomes and TASO ASQs that underpinned the quantitative methods. The MOAT outcomes were retrospectively mapped to the qualitative data and was substituted by more context-relevant empirical outcomes. This allowed the findings to be organised under the following themes:

- **Overarching OC1: Raised Aspirations and Motivation**
 - Enriched social and cultural capital
 - Increased Sense of Belonging
 - Increased extrinsic motivation
 - Increased student engagement with learning
 - Increased intrinsic motivation
 - Increased confidence to succeed

- **Overarching OC2: Increased Academic Success**
 - Improved Cognitive Skills
 - Creative Thinking
 - Problem Solving
 - Decision-making
 - Improved Non-Cognitive Skills
 - Develop meta-cognitive strategies
 - Teamwork
 - Resilience
 - Increased confidence to succeed
 - Academic Self-efficacy
 - Self-Regulatory Self-efficacy
 - Social Self-Efficacy

- **Overarching OC3: Increased Progression to HE**
 - Increased knowledge of HE

⁴ TASO’s Attainment Raising MOAT: https://cdn.taso.org.uk/wp-content/uploads/2023-10_Attainment-raising-MOAT-visual-overview_TASO.pdf

- Mitigate perceived barriers to HE
- Increased Sense of Belonging (academically and socially)
- Increased intention to apply to HE
 - Increased intention to enrol in a creative degree

Ultimately, overarching outcomes 1 and 2 are independent, interrelated variables that affect the long-term and ultimate outcome of increasing progression and enrolment into HE. The findings presented below demonstrate the extent to which the Silver Arts Summer School intervention influenced these intended outcomes.

Data Source and Sample

The sample size being under 30 implies lower statistical power for our dataset. There was further attrition in the sample with multiple instances of missing or incomplete evaluation data. Therefore, the narrative of the analysis is built around an inductive thematic framework developed from qualitative data (collected through the student handbooks, focus group discussion and implementer interviews) which is supplemented by the quantitative data. Note, due to missing responses the samples per survey items differ in size. Since we are already working with a small sample, the researcher only excluded students from corresponding survey response samples wherever their data is missing. Table 14 illustrates the sub-sample (of all 20 participants) size against each data source or methods of collection.

Table 14: Methods and Sample Groups

Data Collection Methods	Number of Respondents <i>(Matched Responses)</i>
Quantitative	
Survey (pre-post)	18-20*
Poll (pre-post)	13
Post-post Survey	0
Qualitative	
Student Handbook (post)	20
Focus Group Discussion (Session 11)	13

**N/B: Matched pre-post responses for the survey fluctuated per items. But the majority of the items had 20 matched responses.*

We have survey responses for all 20 students – albeit incomplete against a number of items. The poll had more missing data due to absences and only data for 13 participants was used in the analysis. The second post-survey, administered online, which was designed to be responded 3 weeks after the residential event had 0 responses (most likely due to feedback fatigue). There was larger than expected sample of qualitative data collected – all 20 participants provided detailed qualitative data through the reflective exercise in their Silver Arts Award handbook (which were able to use in the analysis). We were aiming for at least 6 students for the FGD, but 13 students attended the optional online session which they knew would be for evaluative purposes – that is 65% of our sample population. 3 of the 7 first generation students took part in the FGD alongside 2 students who exhibited a decline in confidence in the surveys. Although the FGD respondents are anonymised, the responses

starkly contradicted some of the negative responses that the same attendees responded in the surveys. This is further elaborated upon in the analysis below.

Theme 1: Raised Aspirations and Motivation

Enriched social and cultural capital → Sense of Belonging → Raised Aspirations/Motivation

Empirical studies have found that higher aspirations is positively associated with higher academic success (Khattab, 2015). A student’s social and cultural capital are important determinants of aspirations and motivation. When educational aspirations are supported and ‘collectively felt’ between the socialiser (in this case: UCA staff, student ambassadors and role models in the industry) and the child (Reay, 1998, p. 526), this may allow for the reinforcement and development of viable expectations for the post-school educational transition. This idea has come through in the data with summer school participants suggesting the intervention and meeting “people who work in the industry” ignited their future aspirations wherein they “can see [themselves] doing something creative in the future”. The cultural capital gained through the residential summer school, with students personally experiencing the HE space and interacting with a HE community, fostered greater contextualised sense of belonging. An increase in sense of belonging leads to higher self-esteem as students with them feeling that they are indeed ‘good enough’ and HE is “achievable”.

Theme: Raised Aspirations and Motivation

Quotes

➤ *Enriched social and cultural capital*

"I never really thought about how many career paths a university degree could open up for me until we did the workshops and met people who actually work in the industry"

"Since we also did the residential and met everyone, it's not just online classes. We've done this in person, and I think I'm very prepared to do new things now."

"Experiencing the campus and speaking to tutors made me realize that university is more than just studying—it's about opportunities, making connections, and finding independence."

• *Increased Sense of Belonging*

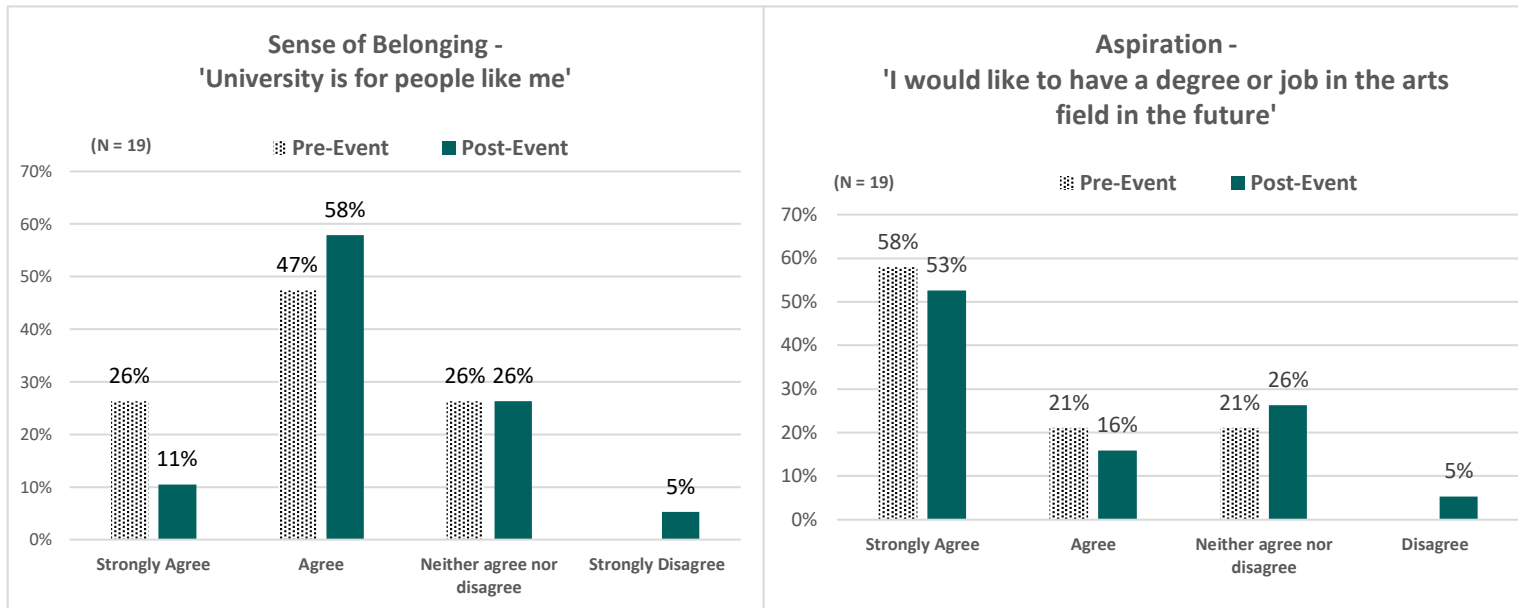
"I was worried that like I wasn't going to be good enough, like it's a big thing in the future, but now I know it was achievable. It was really useful."

• *Increased Extrinsic Motivation*

"After this experience, I can see myself doing something creative in the future."

"Since we also did the residential and met everyone, it's not just online classes. We've done this in person, and I think I'm very prepared to do new things now."

Figure 3: Pre-Post Survey Responses to ‘Sense of Belonging’ and ‘Aspiration/Future Possible Selves’ Constructs



Despite, positive qualitative findings with respect to sense of belonging and aspirations linked to the participants’ future possible selves, this was not reflected in the quantitative results. As shown in Figure 3, there appears to be a slight regression in self-reported sentiments in terms of sense of belonging and aspirations from no negative responses to in pre-surveys to a negative response (Strongly disagree/Disagree) post-event. However, any change in pre-post sense of belonging and aspirations, measured by the items above, were found to be statistically insignificant. It was also found that it was the same student who responded negatively to both. Closer examination of this participants pre-post responses suggests there’s been a clear dip in pre-post confidence, although their intent to apply to HE remained strongly positive. The student exhibited strong motivation to pursue a career and degree in arts and had enrolled to the programme to convince those around them to support their decision. Pre-event this person had only mentioned finance as a barrier to HE, but post-event they revealed they were not confident they would do well academically at university and that their mental wellbeing is also a major barrier to them progressing and succeeding. Findings from the FGD this student took part in 3 weeks after the event shows no evidence that corroborates this negative result (see extract below).

If I did not do the silver arts award I wouldn't have known work that you have to put in to create an effective exhibition. I have realised that a job in creative arts is for me. Silver Arts Award has showed me how to develop a more professional portfolio than before. Also two people who work in a creative job were also there at the trip I was able to ask them questions and learn more about illustration and the show industry mainly women shoes.

The increased in motivation, confidence and raised aspirations through the opportunity to expand their social and cultural capital is a recurring theme in the qualitative responses sourced from the handbook of all 20 students. Therefore, we can safely consider this student to be an outlier due qualitative evidence that external explanatory factors for this change in attitude.

Improved Engagement to Learning ➡ Increased Confidence ➡ Raised Aspirations & Motivation

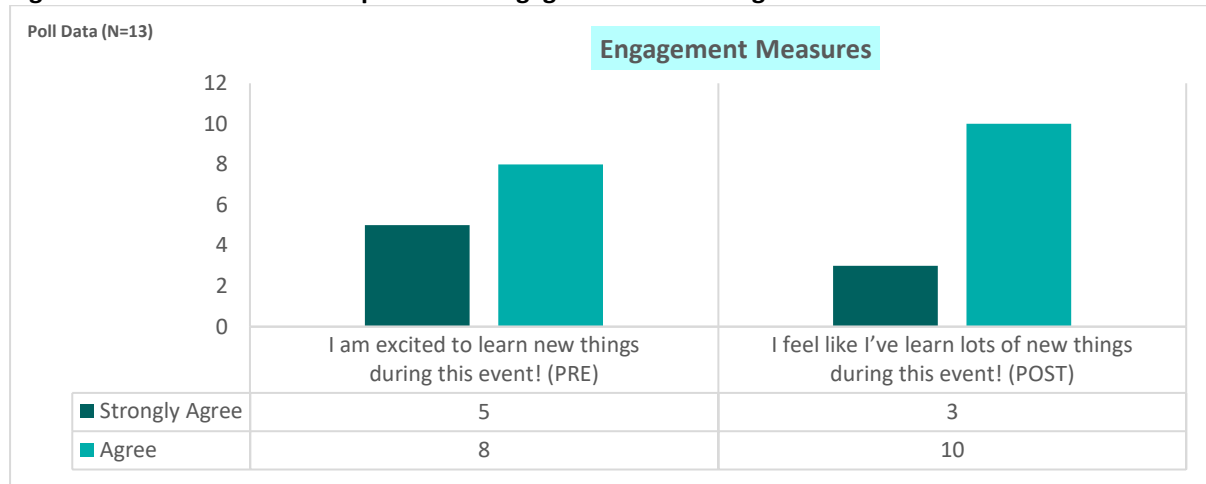
Engagement was measured through a survey item on each the pre-poll and post-poll. The results are shown in Figure 4 below. All responded positively to both statements (Strongly Agree/Agree). The two statements were related but not identical and are therefore not strictly comparable. The researcher had sought to test out whether having variations in questions the pre and post polls would mask the evaluative intention behind them and mitigate survey-fatigue. The pre-responses demonstrate pre-existing high engagement to learning which is corroborated by the reasons they supplied for applying to the Silver Arts Award summer school which was underpinned by previous enriching creative activities delivered by UCA that they participated in. They came onto the programme not only with high expectation, but equally high expectations.

Theme: Raised Aspirations and Motivation

Quotes

<ul style="list-style-type: none"> ➤ Increased student engagement with learning 	<p><i>"It was really nice to have creative freedom and work on something I truly cared about"</i></p> <p><i>"At my school, I mainly worked with wood, but after this, I found that I really liked working with clay. I'm thinking of incorporating it into my future D&T project"</i></p> <p><i>"I had never edited videos before, but I was given the role of editing in our team project. I was surprised at how well it came out, and it's something I'd love to do in the future."</i></p>
<ul style="list-style-type: none"> • Increased confidence to succeed 	<p><i>"My photography skills in composition, lighting and editing have developed and I have learnt how to approach street photography giving me more confidence to continue to explore this further" – [Source: Handbook]</i></p>
<ul style="list-style-type: none"> • Increased Intrinsic Motivation 	<p><i>"For our final project, I loved that we had complete creative control. I'd never worked on painting before with a real purpose, and knowing people would see it was really motivating."</i></p>

Figure 4: Pre and Post Poll Responses to ‘Engagement to learning’ Constructs



All 13 poll respondents agreed they had learnt new things during the event. This finding is reinforced by detailed qualitative feedback in the student handbook with all 20 students reporting they have learnt and gained many positive things over the course of the programme and feel more confident going forward.

Fredricks, Blumenfeld, & Paris (2004) describe engagement as the extent to which students actively participate in academic activities, show emotional investment, and demonstrate behavioural commitment to learning. The programme appears to have had some positive impact on increased motivation to do better in the creative arts fields going forward thereby promoting more positive attitudes to learning *and engagement to arts-oriented learning*. Many students reported that the experience changed their perspective on education, making learning feel more engaging and relevant to their interests. The event successfully boosted students confidence in their artistic abilities and making them feel that their future goals are “achievable” and they are more likely to succeed. This increased confidence resulted in a greater future aspirations and increased intrinsic motivation. Students expressed excitement about continuing to develop their artistic skills. The experience made some students more comfortable with self-directed creative projects, similar to how university assignments are structured.

The National Survey of Student Engagement in the US found that students who are highly engaged in academic and extracurricular activities show higher academic performance and persistence in higher education (NSSE, 2015). Therefore, all of the findings above directly or indirectly feed into the next intended outcome: ‘Increased Academic Success’.

Theme 2: Increased Academic Success

Three of the five short-term outcomes for the programme are in some way linked to increasing academic success. The following analysis looks at whether, and how, the intervention affected other attributive factors (i.e: cognitive skills, non-cognitive-skills and self-efficacy) believed to lead to greater academic success.

Improved Cognitive Skills and Non-cognitive Skills/Self-Efficacy ➡ Academic Success

Cognitive development refers to the process by which individuals acquire, organize, and utilize knowledge, understanding, and reasoning as they grow and mature (Piaget, 1952;

Flavell, 1985). It encompasses the development of mental abilities such as memory, attention, problem-solving, language, and decision-making. A key objective of attainment raising programmes is to help students improve cognitive skills. The aim of this project specifically was to give students the opportunity to develop both technical and interpersonal skills, particularly in creative thinking, problem solving, teamwork and project management.

The student handbook included a question pertaining to skills: ‘What skills has taking part in Arts Award helped you develop and why?’. Table 14 provides the breakdown of skills and how many students explicitly mentioned them in their response. Creative skills have combined the sub-categories of the array of creative skills mentioned in the data.

Skills Categories	Number of students
Creative Skills	15
Confidence	12
Teamwork	10
Leadership	7
Problem Solving & Decision Making	5
Time Management	2
Creative Thinking/Innovation	2

As expected, creative skills (ranging across the different forms of art) were the most mentioned acquired skills by students. The intervention had a great impact on confidence with 60% (n=12) of all participants reported an increase in confidence as a direct result of taking part in the summer school. All mentions of ‘leadership skills’ alluded to the group project they had to complete as part of the curriculum. Teamwork and leadership were another valued skills, with almost all students reporting increases against both. 25% of the students mentioned improvements in problem solving (incl. decision-making) skills. Another 10% mentioned time-management and creative thinking as key skills they’ve acquired. Creative thinking skills in the handbook was associated with the ‘Picture Completion’ tool which was not originally part of the curriculum but was proposed as part of the methods design. Given the level of engagement, it may be a good exercise to keep in future iteration of the programmes.

The breakdown in Fig.4 illustrates both creative and transferable life skills developed through the Arts Award. Students developed both technical and interpersonal skills, particularly in teamwork, creativity, and project management. Qualitative data from the focus groups reinforced the findings from the handbook – as shown in the quotes below.

Sub-Theme: Improved Cognitive Skills

Quotes

<ul style="list-style-type: none"> • <i>Creative Thinking</i> 	<p><i>Innovation - I have had to think on my feet for the projects and the doodle challenges [handbook]</i></p>
<ul style="list-style-type: none"> • <i>Problem Solving & Decision Making</i> 	<p><i>Decision making as I had to (with others) make decisions on where to put things for the exhibition.</i></p> <p><i>During Arts Award, we learnt a lot of new skills. I think a big part of this was teamwork and decision making.</i></p>

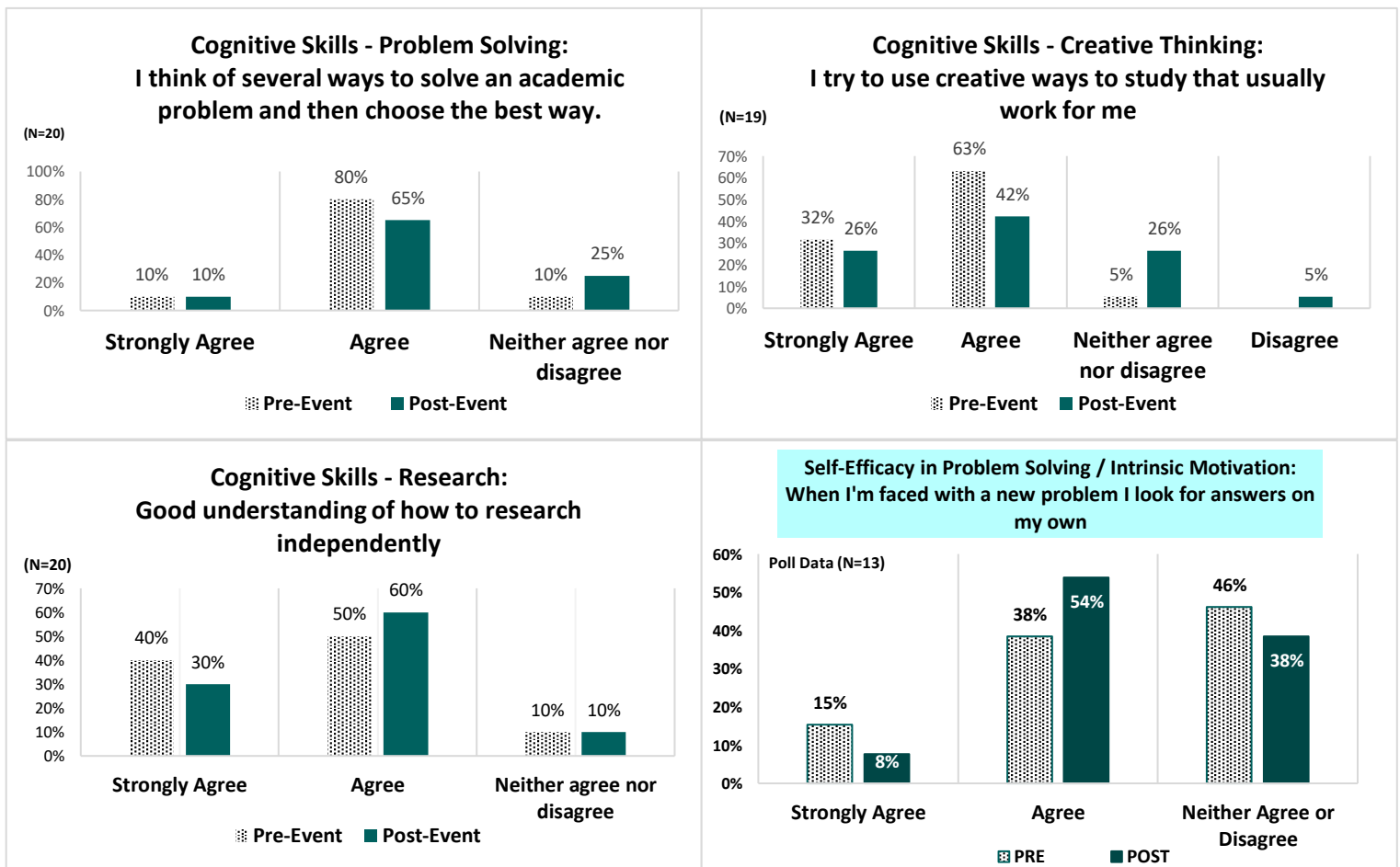
Develop meta-cognitive strategies

After completing the program it has developed my interest in arts and developed my leadership skills. I am hoping to go to sixth form next and I would like to use art to help with my subjects/project ideas

"I had never edited videos before, but I was given the role of editing in our team project. I was surprised at how well it came out, and it's something I'd love to do in the future."

"I enjoyed all the workshops, but my favourite was printing and photography. If I ever open a studio, I can use these skills professionally."

Figure 5: Pre-Post Survey and Poll Responses to Various 'Cognitive Skills' Constructs



However, there was again some counterintuitive quantitative findings showing negative movement against the measure of creative thinking. It is hard to imagine how the same students who boasted creative ways of studying within a month respond negatively to the same statement. Meanwhile self-reported measures of problem solving yielded contradicting findings. Whilst pre-post self-efficacy in problem solving improved marginally, there a slight reduction in positive responses against the other measure of problem solving on the survey. None of the data presented in Fig.5 registered statistically significant shifts. Moreover, the same group of students emphatically reported having increased their problem-solving or components of problem solving in their student handbooks and the FGDs.

I would like to point out how big of a milestone it was for me personally to be engaged with so many like-minded potential artists, developing my communication and problem-solving skills within such a creative environment. This was a very important and huge opportunity for me, that I will carry in my heart and mind in the coming future.

On the other hand, research skills were not as prevalent in the qualitative data which matches the quantitative finding.

Sub-Theme: Improved Non-Cognitive Skills

Quotes

- *Teamwork*

"Working as a team allowed us to always listen to each other and collaborate, which will help in future projects."

During Arts Award, we learnt a lot of new skills. I think a big part of this was teamwork and decision making.

- *Leadership Skills*

It also helped me learn how to work with complete strangers which is very important in leadership

Being a good leader isn't about being mean and pushy, I think it's more about being a good listener and making people feel heard.

- *Time Management*

Meeting deadlines as we had to create a final piece and have it complete in a certain time bracket.

Similarly, self-reported survey and qualitative data pertaining to non-cognitive skills like teamwork, leadership skills and academic self-efficacy were disjointed. Improved teamwork skills is one of the strongest positive findings that emerged in the FGDs and student handbook.

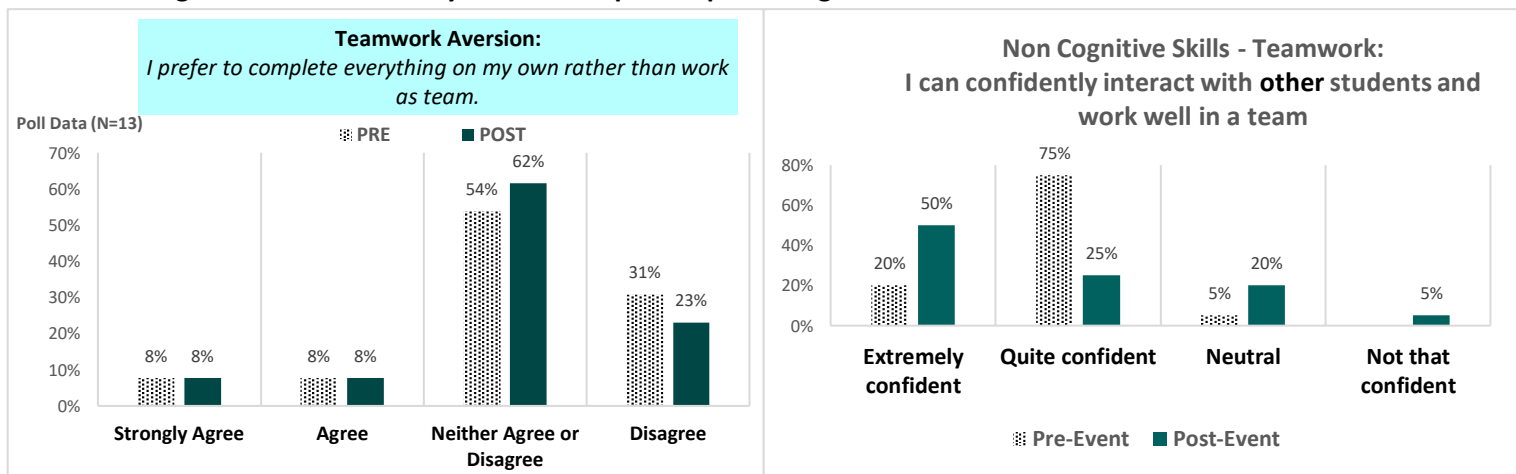
However, there were no pre-post change in aversion to teamwork, captured by the negative survey statement in Fig.6. In this instance, a decrease in agreement responses would translate

as an improvement in perceptions to teamwork. The survey item ‘I can confidently interact with other students and work well in a team’ pre-post decreases in confidence relating to teamwork which is not evidenced from the qualitative data

Also, [improved] my leadership skills and teamwork also developed in Unit 2 as I worked with others to hold an exhibition.

But, again, all quantitative results were found to be statistically insignificant.

Figure 6: Pre-Post Survey and Poll Responses pertaining to Teamwork



Confidence relating to various components of self-efficacy have increased according to qualitative findings.

Sub-Theme: Non-Cognitive – Increased Self-Efficacy and Confidence

Quotes

- Academic Self-efficacy*

These skills have not only boosted my confidence but also equipped me with the tools to succeed in the future

[My skills] they have developed in the way that I feel more confident now.

I attempted these techniques which have developed my skill in fashion. I have developed my confidence in that I can create good things.
- Self-Regulatory Self-efficacy (Resilience)*

“[I learned] that not everything is easy and it takes attempts and practice to achieve what you want. That arts is not impossible but it can be hard”

It helped me build confidence in my own abilities, and I’m not as scared about the future

- *Social Self-Efficacy*

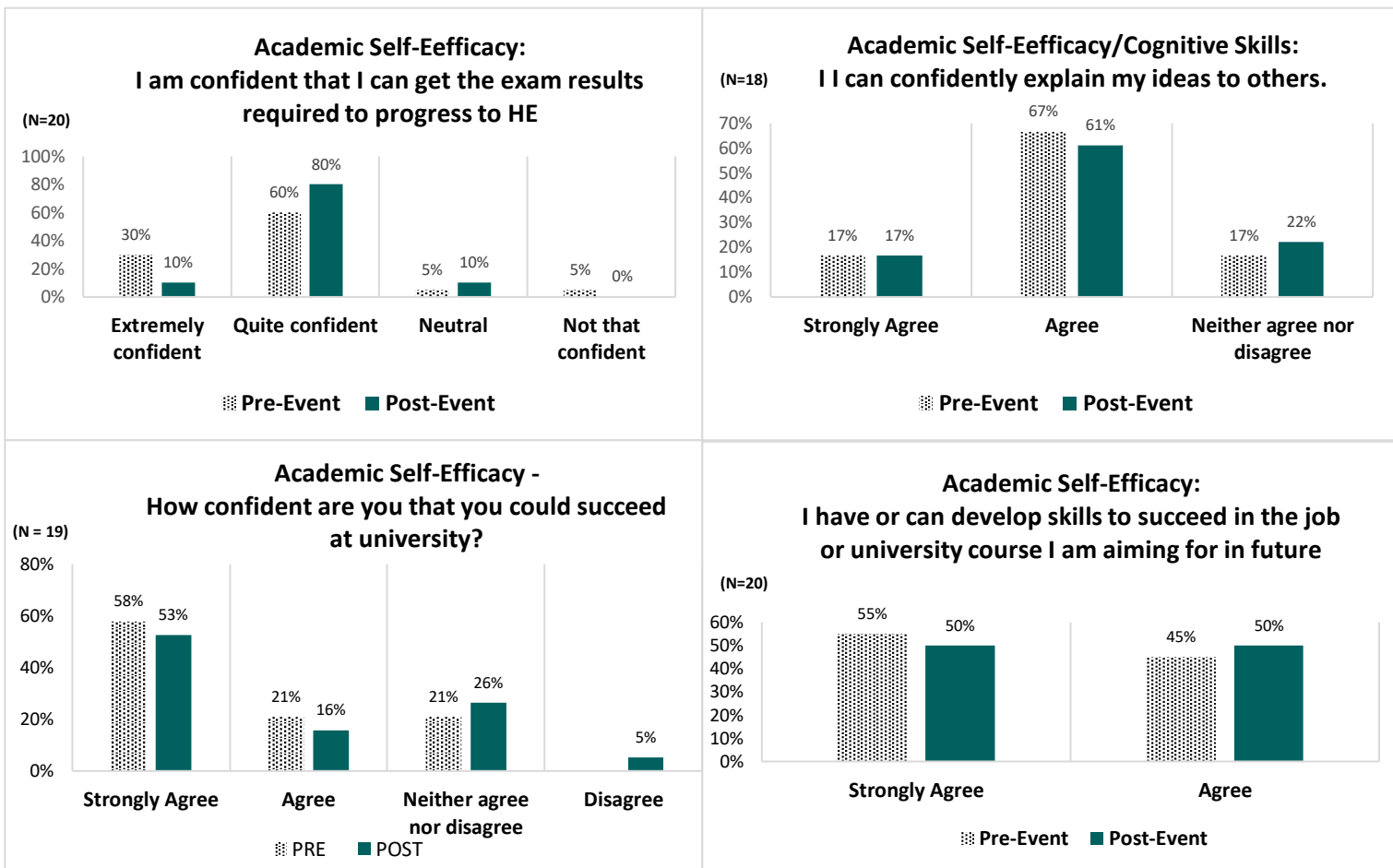
I was nervous at first, but now I feel more excited about my future plans."

I have developed confidence skills due to having to work in a big group and voice my ideas.

"I think I was definitely nervous at the start, but I really didn't have to be. It was really enjoyable, and it made me think more about my future and wanting to go to university."

I wasn't particularly outgoing before, but now I did go and meet new people. That made me less scared and more confident."

Figure 7: Pre-Post Survey Responses to 'Academic Self-efficacy' Constructs



Academic self-efficacy gauged by the confidence in the skills the students obtained through the programme to apply those skills to succeed in their chosen path in the future strongly features in the FGDs and student handbook data.

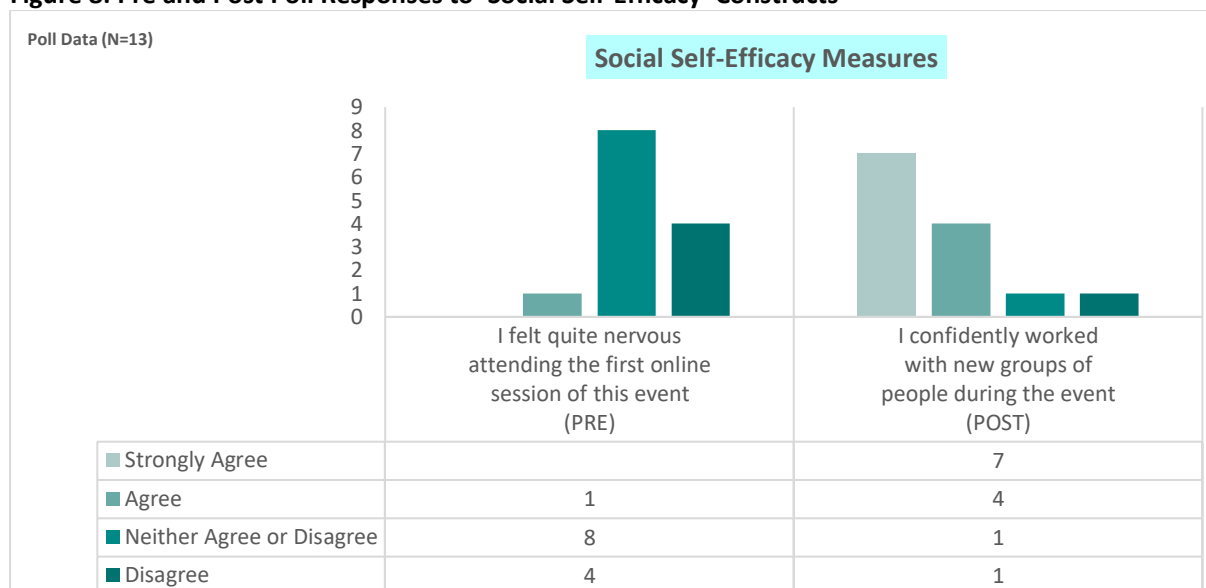
I have developed so many skills. I took part in this Arts Award activity to improve my photography skills but I have learnt so much more than I expected! My photography skills in composition, lighting and editing have developed and I have learnt how to approach street photography giving me more confidence to continue to explore this further.

The ‘Academic Self-efficacy’ marker, with the agreement statement – ‘I am confident I can get the exam results required to progress to HE’, as all other markers, registered little pre-post movement in pre-post agreement (Extremely Confident/Quite Confident); but the one negative pre-response converted to a neutral position post-event.

Figure 7 starkly highlights the inconsistencies that self-reported surveys exhibit. Three of these constructs all allude to academic self-efficacy and confidence to be able to achieve the grades needed to succeed pre and post-entry. However, all three record different responses leading to an inconclusive finding from the quantitative analysis. However, the qualitative data paints a very different picture to this.

It has helped me develop a range of skills, including creative problem solving, leadership & effective communication. By leading projects & collaborating others, I've learnt how to manage tasks, make quick decisions and develop ideas. These skills have not only boosted my confidence but also equipped me with the tools to succeed in the future.

Figure 8: Pre and Post Poll Responses to ‘Social Self-Efficacy’ Constructs



Social self-efficacy constructs in Figure 8 show that the majority of the students did not feel particularly nervous about social interaction pre-event. In the FGDs many students revealed they initially felt nervous about meeting new people but gained confidence over time.

"I think I was definitely nervous at the start, but I really didn't have to be. It was really enjoyable, and it made me think more about my future and wanting to go to university."

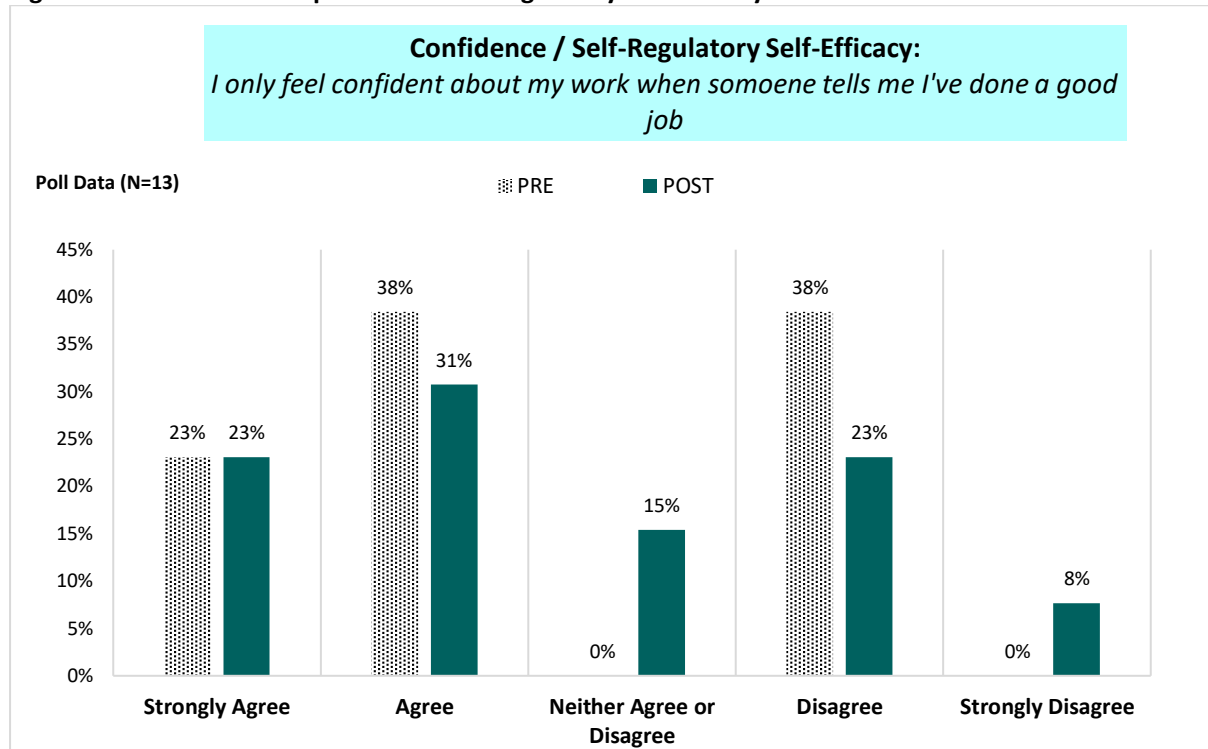
Since the question was defined in terms of the first online session it could explain why the nervousness described in post-residential FGDs had not been captured as the online context mitigated some of the anxieties associated with meeting strangers in an offline setting like the summer school. Even so, the post-event responses were more positively affirmative when reporting on confidence working with others as part of a team. This also reflects positively on their teamwork development.

Before this I wasn't much of a talker, I have developed this by speaking to others and making decisions about where and how we can install the final pieces... I liked meeting new people with interests like me.

While a couple of students still struggled with social interactions, like this student who divulged the following via chat during the FGD session: *"I don't think anything changed. I was always good in a team, but my social skills are still pretty bad"*. However, the large majority of students expressed considerable increases in confidence by interacting with other participants, student ambassadors, staff and other contributors in an "inclusive" environment, and by also engaging in group activities.

This feeling is echoed in data linked to self-regulatory self-efficacy whereby the increase in general confidence was accompanied by greater resilience in students who reflected on how the event benefited their "personal growth". In contrast, the quantitative data, as shown in Fig.9, demonstrates an increase of 7 percentage points in pre-post agreement statements (Strongly Agree/Agree) which for this statement is a negative outcome. However, there was a far greater increase (15 percentage points) in students disagreeing that their self-esteem regarding their work is solely dependent on external feedback.

Figure 9: Pre-Post Poll Responses to 'Self-Regulatory Self-Efficacy' Construct



This supports the qualitative finding of students feeling less anxious in the face of uncertainty or adversity.

I was nervous at first, but now I feel more excited about my future plans

When prompted about what they had learnt from the arts challenge, one participant eloquently summed up their ability to better self-regulate and be resilient:

Not everything is easy and it takes attempts and practice to achieve what you want.

Theme 3: Increased Progression to HE

The outcomes discussed in the analysis section so far are closely interrelated that is intended to lead to greater preparedness for HE and intention to apply. Starting with raised aspirations many students have been able to realise through this programme that there are various degrees leading to different pathways in arts available to them. The FGDs revealed that many students felt more motivated to pursue higher education and creative careers after participating in the summer school through increased academic self-efficacy and post-entry academic sense of belonging .

"I feel like the program helped me realize I could go to university and succeed."

"Going to university isn't just about getting a qualification. It's about personal growth, meeting people who share your interests, and preparing for a career you love."

Many students found that the summer school experience provided valuable insights into university life, helping them better understand what to expect.

"Before going to UCA, I thought university would be more like secondary school, but it's not. We had more freedom, more fun, and I liked it more than I expected."

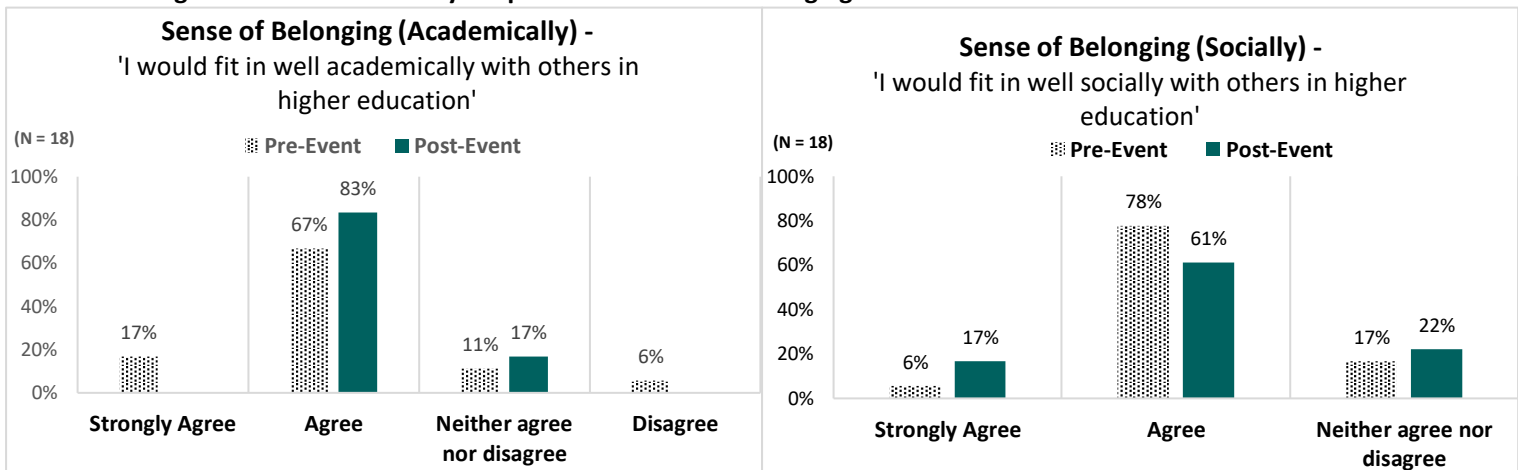
"University is a really big place compared to secondary school, but there's always going to be someone you can hang out with because of how many people there are."

The social and cultural capital gained from the intervention allowed them to foster a greater social and academic sense of belonging in a HE context.

"Experiencing the campus and speaking to tutors made me realize that university is more than just studying—it's about opportunities, making connections, and finding independence."

However, the above is not reflected in the quantitative measures of sense of belonging illustrated in Fig.10. There was apparently no change in pre-post positive agreement statements for, but there was no negative response post event compared to pre-intervention results. Similarly, there were no statistically significant change in social sense of belonging.

Figure 10: Pre-Post Survey Responses to 'Sense of Belonging' Constructs

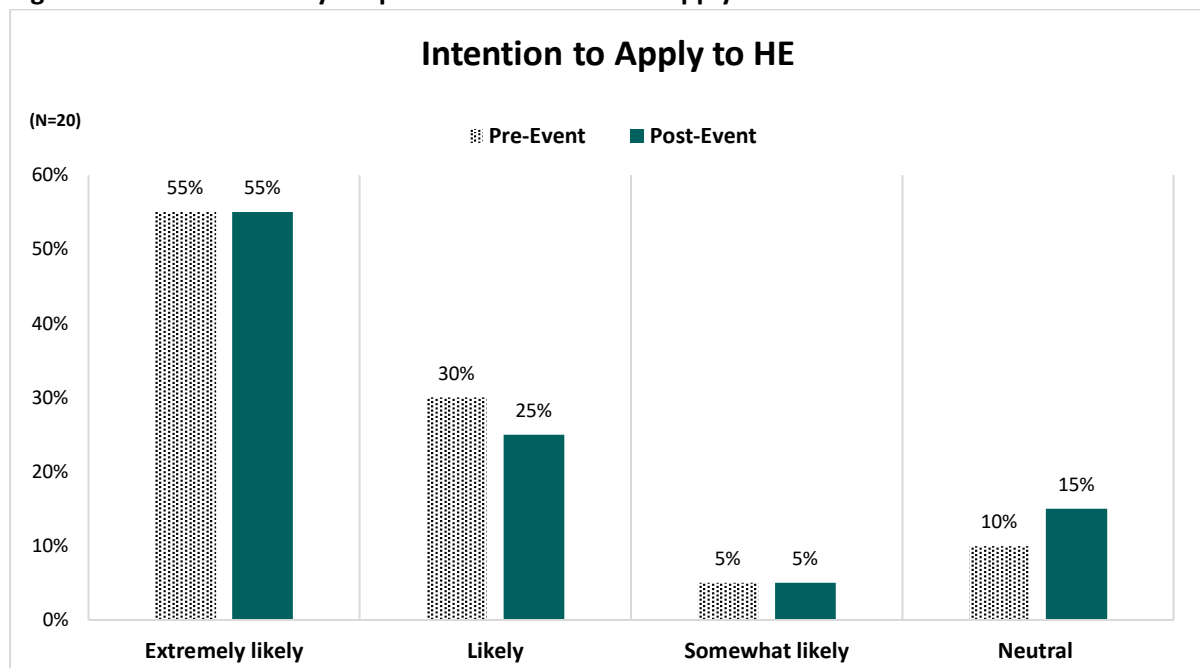


In terms of increased intention to apply to HE and improved perception of HE, qualitative data suggests a positive outcome. The FGDs revealed students not only gained a better understanding of university life but also developed a greater awareness of the advantages of attending university, including career opportunities, independence, and networking. The programme also appeared to have positively influenced students' interest in pursuing creative degrees in higher education.

"I never really thought about how many career paths a university degree could open up for me until we did the workshops and met people who actually work in the industry."

"I want to do photography, so definitely going to a college or university that offers that would be amazing."

Figure 11: Pre-Post Survey Responses to 'Intention to Apply to HE'



As shown in Figure 11 there was little movement in pre-post intentions to apply to HE. 85% (n= 17 of 20) of the sample group were already either extremely likely or likely to apply to HE. The data is potentially revealing self-selection bias wherein we would expect participants with existing high aspirations to apply for self-sign up events like summer schools. This is a similar trend in attitudinal measures previously presented under the other themes registered high proportions of positive or agreement statements prior to the event – meaning there is little scope for pre-post event improvement.

However, there is evidence that participants can now make better informed decisions about their future educational pathway. Some students realized that creative subjects could lead to

real career opportunities. The exposure to creative projects and opportunity to interact with arts material helped students envision their future in the arts.

"I really enjoyed all the workshops, but one of my favourites was when we did the printing. If I wanted to open a studio in the future, I could use that skill professionally."

"At my school, I mainly worked with wood, but after this, I found that I really liked working with clay. I'm thinking of incorporating it into my future D&T projects."

The program provided insights into university life, helping some students decide they wanted to attend university.

Some students were previously unsure about university but gained confidence. Over 15 quotes were captured discussing the positive impact of experiencing university first-hand had on their future HE plans. Many students expressed interest in continuing their education in creative subjects. The experience influenced their perception of university and whether they would pursue higher education.

Process Evaluation

Feedback and Suggested Improvements

When discussing whether the event was as expected, the theme 'expected vs reality' was mentioned more than 10 times. Many students revealed they expected a more structured, school-like environment but were surprised by the freedom and hands-on activities. Some attendees mentioned they thought it would be more like the Bronze Awards program. The experience generally exceeded expectations in a positive way.

"It is very inclusive and makes you feel very welcomed. You improve your skills in art and learn more things as you experience the wide range and variety in art. The staff are all very nice and want to help you and want to know what you are doing. I really felt like I connected with the environment and the people around me and I progressed a lot during this course"

"I especially enjoyed the residential and getting to meet new people rather than just online. I think the activities you do during the online sessions were really interesting to do and I found them really fun...Arts Award can also be very educational if you are looking for jobs in the creative arts in the future and arts award is really good at setting you up for that. Also, I think the residential was really well planned and it was fun setting up and planning the exhibition"

Many students found that the summer school experience differed from their expectations. While some anticipated a more structured, classroom-like setting, they appreciated the hands-on, interactive approach.

"I definitely thought it would be more like classes, and I'm glad it's not like that. Instead, it was more like you had something to do, and we got to decide what we wanted to do with it."

"I expected it to be more like the Bronze Awards. This wasn't what I expected, but it was still fun." – Attendee 6 (via chat)

Students provided several recommendations to improve the program, including:

1. **Providing a schedule in advance** – To reduce uncertainty and anxiety.
2. **More structured creative activities** – Some students wanted additional time for drawing and artistic feedback.
3. **Alternative icebreaker methods** – The introductory session felt awkward to some attendees.
4. **Digital documentation options** – Many students preferred completing their work digitally instead of in a physical workbook.

"Sending the schedule beforehand would help us enjoy the experience more and reduce nervousness."

"The workbook questions were repetitive. It would be easier if we could just do it on Word and submit it online."

The workbook requirement was seen as repetitive and could be improved with digital documentation methods.

Conclusion

Qualitative findings convey the summer school experience was generally positive, with students appreciating the interactive and creative nature of the program. The program successfully increased interest in university attendance and boosted confidence for many attendees. However, some challenges, particularly around social interactions and program structure, were highlighted. Incorporating student feedback into future programs will help refine the experience and maximize its impact.

However, if quantitative findings were taken into account, although insignificant, there were negative observations with regards to confidence in certain domains. Outreach activities that provide a fuller understanding of the demands of degree level study can often lead to a dip in learner confidence in their ability to succeed in HE (CFE, 2019). Additionally, since the self-sign up nature of the event, self-selection bias is very likely to have contributed to no significant pre-post observations in the quantitative analysis due to the programme engaging with already highly motivated students with strong intentions to progress to HE. Due to the contradictory nature of the quantitative findings (all statistically insignificant) and the qualitative ones, it is impossible to draw conclusive generalisations from the data.

6. Discussions

Research Questions

- **Did the intervention engage with the specified target group?**

Targeting was not as effective as it could have been. Although there was some engagement with first generation (35%) and in care students (10%), the majority of the participants did not belong in the bottom quintiles of area based deprivation or low educational participation. A new recruitment strategy needs to be devised to better target widening participation students in the future. This finding also suggests greater targeting efforts needs to be done for affiliated programmes like the Bronze Arts Awards.

- **Did participants gain relevant skills and confidence to achieve academic success within the programme?**

Yes. The majority of participants reported to have developed pertinent arts related skills which they had the opportunity to apply during the programme in completing their arts project for the Silver Arts Award certification. 90% (n=18) of the participants submitted their project to the award body and all of them achieved the certification. Only 2 students failed to submit any project in. The pass rate for the Silver Arts Award is the defining indicator of increased academic success within the remit of the programme.

- **Did participants gain relevant skills and confidence to achieve academic success beyond the programme?**

There is insufficient data to draw a definitive conclusion on academic success post-intervention. From the qualitative data it is apparent that students have developed their creative skills alongside key transferable skills such as teamwork, leadership and self-efficacy. These are expected to increase their ability to perform better at school if they are able to successfully implement their newly acquired skills effectively in their schoolwork. Attainment data on their KS4, KS5 and ultimately their progression data would more accurately assess their academic success. However, we would not have this data for another three to four years for the majority of the participants on this programme.

- **Was the programme delivered as intended? Did students effectively engage with the programme material?**

From the implementers' interview feedback, the programme was generally well received and students were very engaged with many showing clear increases in confidence. Qualitative feedback from the students were overwhelmingly positive and many reported gaining new arts skills as well as other cognitive skills during the event which they plan to apply to future projects. The staff felt the leadership project within the curriculum which required students to work in teams during the residential summer school was not well received by the students from observational data. However, honing teamwork skills and working as a group was cited positively by students with many even revealing how it helped them develop stronger leadership and decision-making skills; whilst others said it increased their social skills and ability to work with others.

Methodological Limitations

- **Programme Preceded Evaluation Plan**

The perplexing case of programmatic design preceding evaluation design, instead of being developed in tandem is a known conundrum for the sector – often occurring due to resource constraints and funding insecurities. The enhanced theory of change was conceived post-event, therefore the literature review of creative arts based activities did not inform the design stage of this intervention – except for the internal metric to capture creative thinking. If this robust evaluation plan preceded the inception of this programme, not only would it have informed us on more effective methods of data collection; but also identified better defined overarching outcomes for a more focused approach to delivery.

Between the tight window of the programme's inception and delivery, and the capacity constraints of the KMPF researchers, it was decided that the event, developed off the blueprints of the already established Bronze Awards, would be treated as pilot programme to test out evaluation tools and methods that would then inform the comprehensive evaluation plan to follow.

However, the pilot programme allowed us the unique opportunity to trial as many different methods of collection as possible through the polls, surveys, internal metrics and the focus group discussion at the end. Undoubtedly, we observed survey fatigue for the second post-survey. The poll surveys were supposed to capture online experience while the surveys were designed to measure outcomes linked to the residential summer school. However, this would have exacerbated the feedback fatigue for participants. All of these observations are invaluable in informing future research methodology designs.

- **Challenges of Generic Self-reported Survey for Heterogenous Samples**

The variation in the stages of their educational journey means that the survey questions would have been interpreted very differently depending on their current standing. The

curriculum could have also been digested in very different ways with the younger students being intimidated by the skills of the older participants. This created a challenging context for analysis and for valid conclusions to be drawn confidently from the data. The qualitative data was more effective at capturing the opinions of the participants – especially in relation to intention to apply to HE, self-efficacy and motivation.

TASO's scales were adopted and generic attainment raising outcomes were appended to the programme – which in hindsight were not appropriate tools for an arts-based attainment raising programme which operates differently from non-creative activities and requires more bespoke attainment measures.

- **Missing Quantitative Data: Internal Metric and Surveys**

Another challenge, was missing responses against certain items of the quantitative questions or incomplete tasks feeding into the internal metric. This led to matched responses in the surveys and polls varying from a sample of 13 to 20 students. The fluctuations in sub-samples made it difficult to draw generalised conclusions.

- **Self-selection Bias**

The issue of self-selection bias in self-sign-up events like summer schools are well-documented in the outreach sector. The quantitative data showed almost no pre-post movement or progress in the constructs measured. This is due to the fact that the majority of students responded strongly affirmatively in the pre-surveys. From their pre-survey response to what had motivated their application to the event, almost all of the students wanted to improve their skills from the Bronze Arts Award. Many revealed they wish to pursue a creative degree at UCA in the future.

- **Data Access, Time and Intertemporal Constraints**

The nature of educational data means that there is a time lag before the desired outcomes can be observed. Apart from the single Year 12 participant, Year 9 and 10 students comprise 85% of this cohort. It would take a minimum 3 to 4 years for them to be ready to progress to HE and for the long-term outcome and impact of the programme to be truly evaluated. Therefore, even though the summer school is designed to be an attainment-raising programme, it is difficult to concretely comment on its effectiveness in improving the skills required for greater academic success. The other constraint was that we did not have prior attainment data from schools or even through the internal metric to gauge the distance travelled in the medium term either.

7.Recommendations

Process Review

Based on student feedback, the following is suggested:

- Provision of a detailed schedule in advance to help manage expectations.
- Increasing the time allocated for creative workshops and artistic feedback.
- Offering a digital alternative to the physical workbook for documentation.
- Incorporating structured icebreaker activities to ease initial social awkwardness.
- Ensuring that students have opportunities to interact with university staff and tutors for additional guidance and feedback.

By implementing these improvements, future iterations of the summer school can provide an even more enriching and supportive environment for students.

Methods Review

- 1) **Targeting:** To increase engagement with the intended targeted group, two alternative recruitment strategies are recommended below.
 - a. Students on the Bronze Awards should be recruited from schools with relatively higher proportions of WP students (i.e: partner schools). Collect WP characteristics through the registers to give priority to WP students, thus building a larger pool of students from the targeted groups. Subsequently, for the Silver Arts Award send out application forms to the above students for more effective targeting.
 - b. Conduct a dual approach, of not only recruiting through self-sign up but for schools to also promote the programme to their students – especially those known to be from a WP background. This would also mitigate self-selection bias often associated with self-sign up events.
- 2) **Attainment Data:** The core of an attainment raising evaluation will rest on the movement in cognitive skills – that are more easily measured through students' output than being over-reliant on self-reported data. Therefore, capturing that attainment data is focal to the evaluation plan. Finding an accurate measure for attainment data for a creative activity presents the greatest risk to the effectiveness of the evaluation. Self-sign up events cannot rely on schools to procure attainment data therefore we need in-built programmatic tools to measure cognitive progress and improvement in skills.

- a. **Design Robust Internal Metric:** The grid below provides a starting point for a more robust internal metric and the different components that could feed into the scoring criteria. It is advised that for greater ease of tracking direction of travel, instead of a grade, a score should be assigned to students throughout the creative workshops against the different criteria. The total score would provide greater scope to track progress through the sessions. The scores could range from 0 to 3 (that are codes for: Below Average = 0, Average = 1, Good = 2 and Excellent = 3). A similar grid can be produced for problem solving with the known components as the base. There is also a need for greater reflection and collective discussion on how to turn this into an operational scoring system and train staff to use it accordingly. This can be informed through more in-depth discussion and research into Torrance’s creative skill measure framework.

Components	Definition	Session 1	Session 2	Session 3	Score
Creative Thinking					
1. Originality	<i>How uncommon is their work</i>				
2. Elaboration	<i>How detailed is their work</i>				
3. Resistance to premature closure	<i>How open minded/inquisitive is their work</i>				
4. Fluency					
				Overall Score	

- b. **Baseline Score:** A more comprehensive way of measuring baseline skills should be designed which is more insightful than a simple ‘Picture Completion’ exercise. It has to be an exercise that incorporates a wider skills set (i.e: creative, research and problem solving skills). One suggestion is for the students to be set ‘homework’ ahead of Session 1, without it being framed as homework or similarly intimidating concepts that would deter participation. It should have simple, clear instructions and not time-consuming. It could be linked to a task they are expected to complete in subsequent sections and students should be aware that not bringing along this piece of work in the first session will impede their completion of the activities.

Students have suggested receiving an activity schedule ahead of the programme to ease nerves. This is a great opportunity to send students the task in guise of preparing them for the event whilst mitigating anxieties related to uncertainties.

3. **Embed Bespoke Tools** (*substitute survey*): All 20 participants responded to questions in the pre-existing questions workbook. This suggests that we should perhaps embed evaluation tools in the workbook next time. Although the handbook was not planned to be an evaluative tool, the open ended reflections on their skills provided more reliable and consistent data than observed in the survey responses.

The workbook requirement was seen as repetitive and could be improved with digital documentation methods. We could use this as an opportunity to embed evaluation tools in the handbook or elaborate certain sections of the Arts Award provided handbook instead of using surveys. This methodology could adapt a sessional reflection table akin to that developed by the University of Kent for their oracy-oriented attainment programme that measured change in debating skills and students' reflection on their performance in each session (KMPF & UoK, 2024).

8. References

- Amabile, T. M. (1996). *Creativity in Context: Update to the Social Psychology of Creativity*. Westview Press.
- Anthony, A. (2024). *Higher Education Policy Institute (HEPI) Blog: New research showing the impact of outreach – only possible through collaboration*. [Accessible online: [New research showing the impact of outreach – only possible through collaboration - HEPI!](#)]
- Antoni, G., Nutik, R., & Rasmussen, A. (2023). Reversing Learning Loss Through the Arts in Afterschool and Summer Programs. In *Expanding Minds and Opportunities: Leveraging the Power of Afterschool and Summer Learning for Student Success*. The Expanded Learning and Afterschool Project. Retrieved from: <https://www.expandinglearning.org/expandingminds/article/reversing-learning-loss-through-arts-afterschool-and-summer>
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York, NY: W.H. Freeman and Co.
- Bong, M. and Skaalvik, E.M., 2003. Academic self-concept and self-efficacy: How different are they really?. *Educational psychology review*, 15, pp.1-40.
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York, NY: Greenwood.
- Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, MA: Harvard University Press.
- Brown, T. (2009). *Change by Design: How Design Thinking Creates New Alternatives for Business and Society*. Harper Business.
- Buzan, T. (2006). *The Mind Map Book: Unlock Your Creativity, Boost Your Memory, Change Your Life*. BBC Active.

- Catterall, J. S. (2009). *Doing well and doing good by doing art: The effects of education in the visual and performing arts on the achievements and values of young adults*. Los Angeles, CA: I-Group Books.
- Csikszentmihalyi, M. (1996). *Creativity: Flow and the Psychology of Discovery and Invention*. Harper Perennial.
- Davis, J. H. (2013). *Why our schools need the arts*. Teachers College Press.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Springer.
- DeMoss, K., & Morris, T. (2002). *How arts integration supports student learning: Students shed light on the connections*. Retrieved from Chicago Arts Partnerships in Education website: <http://www.capeweb.org/wp-content/uploads/2011/05/support.pdf>
- Department for Education (2024). Widening Participation in Higher Education: 2024. [Accessible online: [Widening participation in higher education: 2024 - GOV.UK](#)]
- Duckworth, A. L., & Seligman, M. E. (2005). *Self-discipline outdoes IQ in predicting academic performance of adolescents*. *Psychological Science*, 16(12), 939-944.
- Eberle, B. (1971). *SCAMPER: Games for Imagination Development*. D.O.K. Publishers.
- Ennis, R. H. (1987). *A taxonomy of critical thinking dispositions and abilities*.
- Finke, R. A., Ward, T. B., & Smith, S. M. (1992). *Creative Cognition: Theory, Research, and Applications*. MIT Press.
- Flavell, J. H. (1985). *Cognitive development*. Prentice-Hall.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). *School engagement: Potential of the concept, state of the evidence*. *Review of Educational Research*, 74(1), 59-109.
- Goodwin, D., Bunyard, E., Rogers, H., & Connolly, M. (2020). Tracing routes to higher education through geographies of disadvantage: The contribution of creative arts outreach. *JUICE Journal*, 1(1). Retrieved from <https://juice-journal.com/2020/03/10/tracing-routes-to-higher-education-through-geographies-of-disadvantage-the-contribution-of-creative-arts-outreach/>
- Guilford, J. P. (1967). *The Nature of Human Intelligence*. McGraw-Hill.
- Hmelo-Silver, C. E. (2004). *Problem-based learning: What and how do students learn?* *Educational Psychology Review*, 16(3), 235-266.
- Kent County Council. (2024). Children, Young People and Education Directorate Scoreboard. [Accessible online: [CYPE Directorate Scorecard - July 2024.xlsm](#)]
- Lareau, A. (2015). Cultural knowledge and social inequality. *American Sociological Review*, 80(1), 1-27.
- Mayer, R. E. (1992). *Thinking, problem solving, cognition*. W.H. Freeman.
- Mayer, R. E. (1998). *Cognitive, metacognitive, and motivational aspects of problem solving*. *Instructional Science*, 26(1-2), 49-63.

- National Survey of Student Engagement. (2015). *Engagement insights: Survey findings on the quality of undergraduate education—Annual results 2015*. Indiana University Center for Postsecondary Research.
- Newell, A., & Simon, H. A. (1972). *Human problem solving*. Prentice-Hall.
- Office for Students. (2019). The National Collaborative Outreach Programme: End of Phase 1. [Accessible online: [ncop-end-of-phase-one-evaluation-report.pdf](#)]
- Osborn, A. F. (1953). *Applied Imagination: Principles and Procedures of Creative Problem Solving*. Scribner.
- Paul, R., & Elder, L. (2006). *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life*. Pearson.
- Piaget, J. (1952). *The origins of intelligence in children*. International Universities Press.
- Polya, G. (1945). *How to solve it: A new aspect of mathematical method*. Princeton University Press.
- Robinson, K. (2011). *Out of Our Minds: Learning to be Creative*. Capstone.
- Runco, M. A., & Jaeger, G. J. (2012). *The Standard Definition of Creativity*. *Creativity Research Journal*, 24(1), 92-96.
- Ryan, R. M., & Deci, E. L. (2000). *Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being*. *American Psychologist*, 55(1), 68-78.
- Schunk, D.H., 1987. Self-Efficacy and Cognitive Achievement.
- Schunk, D. H. (1991). Self-Efficacy and Academic Motivation. *Educational Psychologist*, 26(3-4), 207-231.
- Schunk, D. H., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 15–31). Academic Press.
- Smith, H. M., & Betz, N. E. (2000). Development and validation of a scale of perceived social self-efficacy. *Journal of Career Assessment*, 8(3), 283–301.
- Sternberg, R. J. (1995). *Successful intelligence: How practical and creative intelligence determine success in life*. Simon & Schuster.
- Sternberg, R. J., & Lubart, T. I. (1995). *Defying the Crowd: Cultivating Creativity in a Culture of Conformity*. Free Press.
- Sternberg, R. J. (2006). *The Nature of Creativity: Contemporary Psychological Perspectives*. Cambridge University Press.
- Torrance, E. P. (1966). *The Torrance Tests of Creative Thinking: Norms-Technical Manual*. Personnel Press.
- Vadivel, B., Alam, S., Nikpoo, I., & Ajanil, B. (2023). The impact of low socioeconomic background on a child's educational achievements. *Education Research International*, 2023, Article 6565088.

- Van Dinther, M., Dochy, F. and Segers, M., 2011. Factors affecting students' self-efficacy in higher education. *Educational research review*, 6(2), pp.95-108.
- Wallas, G. (1926). *The Art of Thought*. Harcourt Brace.

9. Appendix

Appendix A: Theory of Change

Situation/Context	Students from underrepresented and disadvantaged backgrounds are less likely to apply/enrol to HE than their peers. UCA has engaged with students from widening participation criteria in previous activities where they achieved Bronze Art Awards. The literature shows more intensive activities and longer contact hours yield the greatest impact for widening participation students				
Aims	<ul style="list-style-type: none"> • To provide arts-based intensive activity to WP students • To provide opportunities for students to develop key learning skills such as creative thinking, problem solving and self-efficacy. • To increase students' confidence in skills attributed to creative arts. • To improve students' knowledge of creative degree courses and careers in the sector. 				
Inputs	Activities	Outputs	Short-term outcomes	Medium-term outcomes	Impact
Process			Impact		
<p>Budget to run outreach intervention.</p> <p>Staff time and expertise – development, coordination and implementation of programme.</p> <p>Staff expertise/KMPF – evaluation & evaluation resources.</p> <p>Student ambassadors</p> <p>Provision of student resources, printed and online</p> <p>External expertise – 'Silver Arts' awarding body, Trinity College London:</p> <p>Produces workbook resource and guidance</p>	<p><u>Activity Provision</u> 6x2.5 hrs online workshops aimed at covering the skills in the arts award curriculum.</p> <p>3-day residential summer school – pursues completion of the Silver Arts Award module whilst also</p> <p>1x2.5 hrs online workshop post-residential event for anyone needing extra support in completing their arts project</p> <p>1x1.5 hrs online reflective session</p> <p>Workshops cover the following:</p> <ul style="list-style-type: none"> • Creative thinking • Problem solving • Research skills • Leadership skills / Decision making 	<p>Delivered to previously engaged students</p> <p>15-30 students</p> <p>contact hours</p> <p>Students explore a range of art forms and skills</p> <p>Students are expected to increase improve key learning skills to successfully achieve a Silver Arts Award within 3 months</p> <p>Students have the opportunity to develop attainment raising cognitive and non-cognitive skills</p>	<p>SO1: Students have increased their transferable skills linked to academic attainment (creative thinking, self-efficacy, problem solving)</p> <p>SO2: Students are able to apply these key learning skills to successfully achieve the Silver Arts Award certificate</p> <p>SO3: Students have an increased belief in their ability to do well academically</p> <p>SO4: Students exhibit an increased sense of belonging through</p> <p>SO5: Students increase their social/cultural capital through exposure during the residential</p>	<p>MO1. Student have increased knowledge of HE</p> <p>MO2. Raise aspirations and intrinsic motivation to achieve their goals</p> <p>MO3. Raise aspirations for achieving a creative degree in the future</p> <p>MO4. Students are able to make better informed decisions about HE</p>	<p>Increased academic success through raised aspirations</p> <p>Increased progression to Higher Education</p> <p>Increase enrolment into HE creative degrees</p>

UCA Silver Arts Award Summer School Programme Causal Pathways

- Overarching Themes
- Short-term outcomes
- Medium-term outcomes
- Long-term impact
- ★ Intervention Output

