



Black Country Children's University Evaluation Report

A report by Tiller Research Ltd
on behalf of the University of Wolverhampton
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Section 1 – Introduction

1.1 Background

Children’s University is an international organisation aiming to promote social mobility by providing high-quality, exciting and innovative out-of-school-hours learning activities for children and young people aged 5-14 years.¹

Black Country Children’s University (BCCU) was formed in 2014, coordinated by the University of Wolverhampton’s primary outreach and progression team. This built on a small pilot Children’s University run through Wolverhampton College and Wolverhampton City Council, joining it with Walsall Children’s University that had previously been coordinated by Walsall Council. BCCU was expanded beyond these initial areas to include Sandwell, Dudley and schools in Birmingham that are members of the Education Central Multi Academy Trust (ECMAT).

The University of Wolverhampton commissioned Tiller Research Ltd to undertake an impact evaluation of BCCU. An initial exercise was undertaken in the summer of 2017, using questionnaires and interviews to assess the views of BCCU school coordinators and parents/carers of participating children. An ‘interim’ report detailing the findings from this exercise was published in September 2017. Overall satisfaction of schools and parents/carers with the BCCU model was shown to be very high. These stakeholders reported a range of perceived impacts of BCCU, in particular that Children’s University encourages participation in a broader range of activities, and that participating children demonstrate a more positive attitude to learning, along with improved confidence and improved self-esteem.

Further work was undertaken to examine the impact of BCCU in more detail. Discussion groups were undertaken with children to explore participants’ attitudes to learning and aspirations, in addition to exploring their experiences of Children’s University. This report presents the key findings from these discussion groups, along with evidence of the key impacts of Children’s University.

1.2 Data Collection

1.2.1 Ethical Practice

The Directors of Tiller Research Ltd are members of the Social Research Association (SRA), and this research was undertaken in accordance with the SRA’s Ethical Guidelines². A briefing note for parents/guardians was issued prior to the discussion groups being undertaken, outlining the research purpose and methods.

The briefing note explained the safeguarding measures in place, including the rights of participants to withdraw from the research (and of parents/guardians to withdraw their child). In addition, each discussion group started with an explanation of the research, with participants also informed of their right to not answer any questions.

¹ www.childrensuniversity.co.uk

² <http://the-sra.org.uk/research-ethics/ethics-guidelines/>

1.2.2 Overview of Participants

A sample of 74 children from six schools took part in discussion groups towards the beginning of the 2017-18 academic year. Autumn 2017 groups each comprised between four and eight learners with a similar level of experience of Children's University. In most cases, this involved undertaking two discussion groups per school: one with Year 3 or 4 learners who had recently signed up to Children's University, and one with older learners who had some experience of participating.

Follow-up discussion groups were undertaken towards the end of the year in June/July 2018 to investigate participants' experiences of Children's University throughout the year, and the impact of these experiences. Summer 2018 discussion groups retained the same membership, with all available participants from the Autumn 2017 discussion groups taking part. Absences resulted in smaller group sizes of between three and six participants, with a total of 55 children from five schools.

Gender

Overall, 55% of discussion group participants were female and 45% male.

Year Group

Most participants (94%) were from Key Stage 2, with a small proportion from Key Stage 1 (6%). The majority of participants were from one of three year groups:

- Year 3 (30%)
- Year 4 (25%)
- Year 6 (36%)

Selection of Participants

Participants were selected by their school co-ordinator for Children's University based on one of two criteria:

- **Children who had not previously participated in Children's University, but who were expected to do so during the 2017-18 academic year**
This group consisted primarily of learners from Years 3 and 4 who had recently signed up to Children's University, and accounted for 35% of participants.
- **Children who had participated in Children's University, and were expected to attend their first graduation during the 2017-18 academic year**
This group accounted for 45% of participants, approximately 60% of whom were from Year 6. In addition, some schools included children who had previously received a 'Bronze' certificate, but were expected to attain a higher level award during the year (20%).

1.2.3 Sample of Schools

BCCU had 30 primary schools as members at the start of the evaluation period. A sample of 20% (6 schools) was selected. All member schools were given the option of participating in the evaluation. This 'volunteer' sample was supplemented with direct invitations to additional schools, selected to ensure the overall geographic and demographic characteristics of the sample were broadly representative of the BCCU membership.

In order to maintain the confidentiality of participating schools and pupils, this report does not contain specific details that would enable identification. However, the

sample reflected the diverse nature of the overall BCCU membership in several ways, including the following:

- **Geography-** schools were included from across the BCCU area, including from Birmingham, Dudley, Walsall and Wolverhampton;
- **Governance-** a range of school types were represented, including Academy Sponsored, Community, Voluntary Aided, and Voluntary Controlled;
- **Free School Meal (FSM) Eligibility-** BCCU member schools have between 2% and 52% of pupils eligible for FSM, a range of 50 percentage points. The evaluation sample included schools with an FSM eligibility covering a range of 38 percentage points;
- **Index of Multiple Deprivation (IMD) Profile-** the IMD is a national data measure identifying the relative socio-economic status of different neighbourhoods by combining data related to seven domains, including income, health, education and crime³. BCCU member schools have between 20% and 100% of their pupils from a neighbourhood ranking in the most deprived 20% of neighbourhoods in England. The evaluation sample contained schools with a 78 percentage point range in the proportion of their pupils who live in the most deprived 20% of neighbourhoods;
- **Participation of Local Areas (POLAR)-** POLAR3 classifies areas across the UK based on the proportion of the young population that participates in higher education⁴. A school's POLAR3 rating is based on the proportion of their pupils who live in the 20% of neighbourhoods where young people are least likely to enter higher education. The POLAR3 ratings of BCCU member schools ranges from 7% to 99%, a range of 92 percentage points. The evaluation sample contained schools with an 81 percentage point range in their POLAR3 ratings.

1.2.4 Worksheets

Discussion groups started with participants completing a short worksheet to introduce key topics. The worksheet consisted of a visual analogue scale, with participants asked to mark their response to four questions:

- How much do you enjoy school?
- How much do you enjoy learning?
- How happy are you to try new things?
- How much do you enjoy working with other people?

In addition, the worksheets asked participants to list any activities or clubs that they took part in during lunchtime, after school or at the weekend.

³ <https://www.gov.uk/government/collections/english-indices-of-deprivation>

⁴ <https://www.officeforstudents.org.uk/data-and-analysis/polar-participation-of-local-areas/>

1.2.5 Discussion Themes

Discussion groups were facilitated by two researchers. Each discussion lasted around 20 minutes and was audio-recorded, with the assent of all participants. A semi-structured approach was used, based on the following key questions:

Attitudes towards learning

- Can you tell us one thing that you've learnt in the last week?
- What do you like learning the most?
- If you find something difficult, what do you do?

Expectations/experiences of Children's University

- What are you looking forward to/what have you enjoyed most about participating in Children's University?

Aspirations/ knowledge of HE

- What do you think you might like to do when you leave school?
- What can you tell us about the University that some people choose to go to after they have left school? Is this somewhere that you might like to go?

1.2.6 Data Analysis

The worksheets and discussion group transcripts were analysed by two evaluators:

- **Worksheet scales** were converted to a percentage score. Baseline and follow-up mean scores were compared using repeated measures *t*-tests, which assess differences between parametric data sets. The distribution of scores were non-parametric, and so the results of the parametric statistical tests were confirmed by Wilcoxon signed-rank tests, an equivalent non-parametric test. Results of the non-parametric tests agreed with parametric results. Effect sizes were calculated as Cohen's *r* and their magnitude was interpreted following guidance by Field (2005)⁵: *r* = .10 (small effect), *r* = .30 (medium effect), *r* = .50 (large effect)
- **Discussion group transcripts** were analysed using a summative content analysis technique based on methods described by Hsieh & Shannon (2005)⁶ to broadly summarise the key responses and themes in the children's answers to our question. Our analysis presents both qualitative and quantitative analysis of the discussion, as follows:
 - Transcripts of the discussion were analysed to identify the key responses / themes children gave in answer to each discussion question.
 - A 'count' of the times each key response / theme was mentioned by a different child is presented to indicate the focus of children's responses. This count is presented as a percentage of the total responses given to each question.
 - The quantitative summary of responses is supported by qualitative analysis of the key responses/ themes, explaining their meaning and thematic content.

⁵ Field, A. (2005) *Discovering Statistics Using SPSS*. Sage: London.

⁶ Hsieh, H-F & Shannon, S. E. (2005) Three Approaches to Qualitative Content Analysis *Qual. Health Res.* 15: 1277

Section 2 – Quantitative Results

2.1 Overview of Scale Responses

Analysis was undertaken of responses to the four visual analogue scales from the two participant groups (see section 1.2.2). Responses were only included in the analysis where a participant had completed the scales at both baseline and follow-up. In addition, participants were excluded from the analysis if (a) they had already attended a graduation at baseline (n=9), or (b) they had not participated at all in Children’s University at follow-up (n=5). This resulted in a sample size of 41 participants.

The mean response rating between baseline and follow-up measures showed a slight drop for three questions (*‘How much do you enjoy school?’*, *‘How much do you enjoy trying new things?’* and *‘How much do you enjoy working with others?’*), though these changes did not reach statistical significance.

The group average response rating for the question *‘How much do you enjoy learning?’* was 65% at baseline. This was the lowest of the four scales (see figure 1). This question was the only one that saw an increase in the average response rating, with an apparently substantial increase to 76% at follow-up. This change reached borderline statistical significance ($t_{40}=-1.971$, $p=.056$). The effect size indicated that this was a small-medium effect ($r=0.29$).

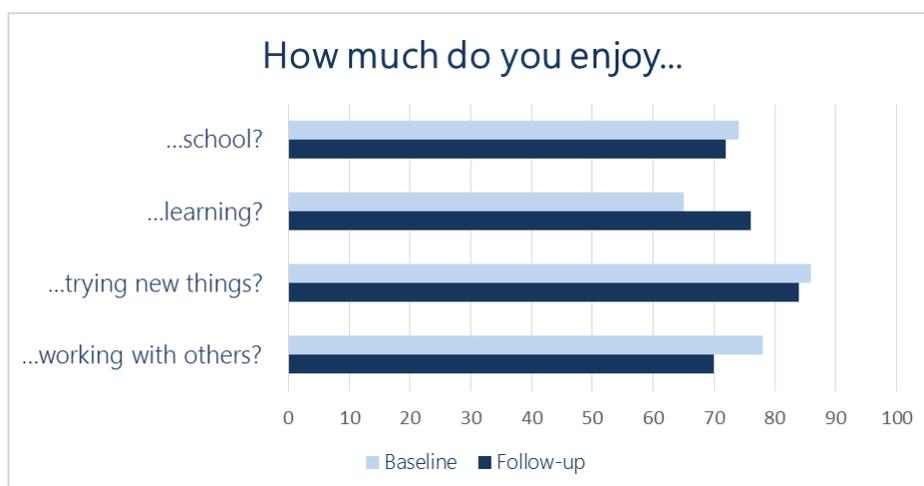


Figure1: Mean average ‘before’ and ‘after’ response ratings for the visual analogue scale questions (n=41)

2.2 Changes in Attitudes for Below-Average Respondents

Additional analyses were undertaken of the change in attitude for those respondents who selected a baseline response rating that was below the cohort average.

How much do you enjoy school?

Some 17 participants gave a baseline rating for the question *‘How much do you enjoy school?’* below the cohort mean average of 74%.

The average response rating for this subgroup showed a rise from 50% at baseline to 66% at follow-up (figure 2). This increase was statistically significant ($t_{16}=-3.397$, $p<.05$), and the effect size was of a statistically large magnitude ($r=0.86$).

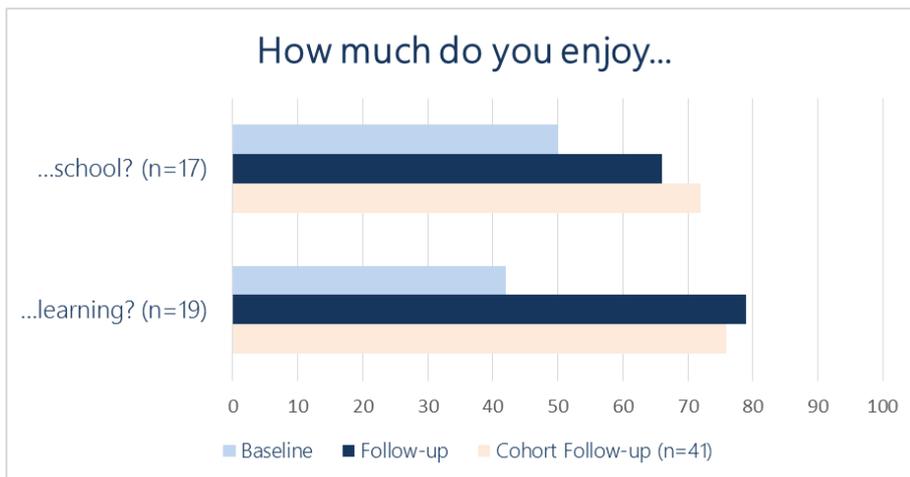


Figure 2: Mean average ‘before’ and ‘after’ response ratings for participants choosing a baseline response rating below the cohort average for that question.

How much do you enjoy learning?

Some 19 participants gave a baseline rating for the question ‘How much do you enjoy learning?’ below the cohort mean average of 65%.

This sub-group showed a striking, statistically significant increase in their response rating from an average of 42% at baseline to 79% at follow-up ($t_{18}=-6.881, p<.001$), which was higher than the total cohort mean at follow-up of 76% (figure 2). The effect size indicated that this change was of a statistically large magnitude ($r=0.85$).

Other response ratings

No significant effects were found for responses to the questions ‘How much do you enjoy trying new things?’ or ‘How much do you enjoy working with others?’ for those scoring lower than the cohort average at baseline.

2.3 Changes in Activity Levels

Participants self-reported that they took part in an average of 2.53 extra-curricular activities at baseline (n=41). Just under 3 in 10 were participating in just one extra-curricular activity (29%), with 1 in 20 not participating in any extra-curricular activities at baseline (5%).

Activity levels at follow-up had increased to an average of 3.64 extra-curricular activities per participant, with 83% taking part in more than one activity. This increase was a statistically significant and large effect ($t_{40}=-3.803, p<.001, r=0.51$). Overall, 63% of learners had increased the number of activities they were taking part in.

2.4 Change in Range of Activities

The most popular extracurricular activities undertaken at baseline were sports/ martial arts (figure 3), and performing arts activities (including dance and music). These remained the most popular types of activities at follow-up. Arts and crafts activities (7% of overall named identified) and uniformed organisations (e.g. Cubs, Scouts, Brownies, Guides; 6%) also had a similar level of participation at follow-up compared to baseline.

There was a notable increase in the number of children engaged in a wide-range of ‘other types of activities’ at follow-up compared to baseline. At baseline, ‘other’ activities

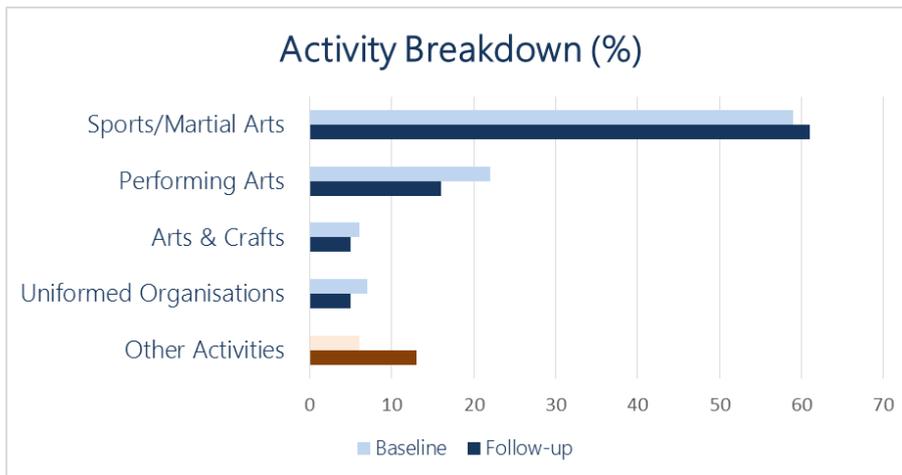


Figure 3: Categories of activities undertaken as baseline and follow-up.

accounted for 6% of total named activities, with 10% of participants saying that they took part in one or more of these. At follow-up, almost 1 in 3 participants said that they took part in one or more ‘other’ activities (28%), with these representing 13% of overall named activities.

Examples of ‘other’ activities listed at follow-up included computing, engineering, gardening and cookery clubs, museum visits and volunteer work. The range of sports engaged in also appeared to have somewhat broadened at baseline. New sports appearing at follow-up included tri-golf, dodgeball, rounders and table-tennis to add to the ubiquitous football, swimming, gymnastics and athletics.

Discussion group data confirmed that many participants had been encouraged to try new a new activity because this would could towards their Children’s University ‘points’.

2.5 Comparisons with Previous Graduates

‘Before’ and ‘after’ visual analogue scales were completed by nine participants who had already received a Children’s University ‘Bronze’ certificate, awarded for completing 30 hours of extra-curricular activities, at baseline. It was noted that the average response from this group to the question ‘How much do you enjoy learning?’ in Autumn 2017 was very similar to the average response to this question from the test cohort in Summer 2018. Moreover, response ratings to all questions from this group were higher on average than for the test cohort, and increased somewhat between the two time-points.

The small group size means that formal statistical analysis was not possible for this group. However, the data suggest that there is a link between Children’s University participation and the ratings given by participants, and that ongoing participation enhances this effect.

2.6 Limitations of Statistical Tests

The sample size of those completing repeated measures at both baseline and follow-up was low. A power analysis (G*Power) suggests that the repeated-measures *t*-tests run on the full cohort of 41 achieved a statistical power of 0.87, which is lower than ideal but acceptable. The *t*-tests run on the lower scoring sub-groups had further reduced participant numbers

and, therefore, very low statistical power (0.49-0.54). Therefore caution should be exercised when drawing conclusions from these results.

Nevertheless, the statistical effect sizes indicate that there were a number of changes in the attitudes of participants during the course of the year. Future replication with a larger sample size would be ideal to further strengthen evidence of impact. Moreover, future research with a larger sample size of participants with previous experience of Children's University would be worthwhile in order to examine the sustained impact of taking part in Children's University in more detail.

2.7 Summary of Quantitative Results

- On average, participants demonstrated high baseline levels of enjoyment of school, of working with others and of trying new things which did not significantly change across the study period.
- Enjoyment of learning appeared somewhat lower at baseline, and showed substantial increase across the study period, reaching borderline statistical significance ($p=.056$).
- Participants whose response ratings for enjoyment of school at baseline fell below the cohort average showed a **significant increase in their enjoyment of school** at follow-up ($p<.05$). Those learners whose enjoyment of learning fell below the cohort average at baseline showed a **significant increase of enjoyment of learning** at follow-up ($p<.001$). In both cases, the average response rating for these groups increased to be equivalent to the overall cohort average at follow-up.
- At baseline, most children were engaged in some extra-curricular activities, but the number of activities participated in had significantly increased at follow-up ($p<.001$).
- The most popular activities engaged in were sports and performing arts activities, and this did not change across the study period. However, at follow-up, the cohort were engaged with a broader variety of activities. This included 1 in 3 learners who were participating in at least one activity that was not related to sports, arts, or uniformed organisations. The range of sports activities that learners were participating in had also widened.
- Due to the small sample size, the statistical power of this analysis was compromised, and so the results may not be generalizable to a wider population. Replication with a larger sample would be ideal.

Section 3 – Discussion Group Results

3.1 Attitudes Towards Learning

Can you tell us one thing that you've learnt in the last week?

At baseline, participants' responses were dominated by the 'big three' subjects of maths, literacy and science. The only extra-curricular activities mentioned were sports, all relating to attendance at external clubs for gymnastics and swimming.

At follow-up, a noticeably wider range of learning was mentioned by participants undertaken both inside and outside of the classroom. Maths was still the most mentioned thing learnt, but there was a broader range of subjects highlighted. In addition, classroom-based learning was now complemented by extra-curricular learning, including skills learnt at clubs, and things learnt at home.

It should be noted that the time of year may have affected some in-school experiences; e.g. one group had recently returned from a residential trip. Nevertheless, this change in emphasis of the responses regarding learning may reflect the fact that many participants were undertaking a wider range of activities than at baseline, and/ or that some had broadened their understanding of what a learning experience can be.

What do you like learning the most?

Maths and Art were the joint most popular things to learn at baseline, with sports skills also mentioned very frequently. Just under a third of the sports mentioned related to activities undertaken outside of school, including clubs for dance, cycling and gymnastics. However, the majority of those mentioning sports enjoyed PE lessons and the sports covered regularly in the curriculum like football.

Participants enjoyed the challenge of solving maths problems, and some found problem-solving a way to be creative by *'thinking outside of the box'*. Several other learners said that they found it easy to know if they were doing well in maths, due to the 'right or wrong' nature of maths questions, which they found motivating:

"I love Maths. I'm just really good at it."

"It makes you think a lot. And some of the things we do in maths are complicated so we have to think a lot, and think outside of the box."

"With English, there's loads of different answers you can get. Maths is less confusing because there's one specific answer you're looking for."

Art was enjoyed by many children who enjoyed being creative and using their imagination. It was often contrasted with literacy or maths as being different and fun:

"I don't just like doing maths. I like getting messy!"

"I love how it's not just writing and writing and writing."

"You get to let your imagination flow."

A significant minority enjoyed humanities subjects and project-work. One child said they liked *“learning things through doing fun activities”*. Sports were also seen as relaxing and fun, as well as a way to clearly achieve goals and overcome challenges:

“[In gymnastics] you get to learn stuff that you never would’ve thought that you would be able to do.”

At follow-up, findings seemed broadly equivalent to the baseline discussions, with Art, Sports and Maths the most enjoyable things to learn. However, a few new subjects were mentioned comprising around a fifth of the responses given:

- Nature;
- Science;
- Design and tech;
- Languages;
- Computer skills;
- Cookery.

This change may represent the fact that participants had now engaged in a wider range of extra-curricular activities as part of Children’s University, including clubs relating to design and tech, cookery and computing running in some schools. It may also reflect that follow-up groups ran at the end of the school year, when participants had had the chance to participate in school projects over the course of the academic year. Participants clearly enjoyed activities that were different or memorable:

“I like science because you get to test out lots of experiments... And our Topic was Misty Mountains, and we got to make a volcano and we went out on the field and we made it, like, erupt.”

“[French] Because it’s a different language that most people don’t speak in this country so we learn all new words.”

“[Residential trip] You learn lots of things about people... and it’s also the only chance you get to do stuff with your whole class where you’re actually able to get to know each other and, like, really bond.”

If you find something difficult, what do you do?

At baseline, school-based solutions were popular, with 1 in 3 participants saying that they ask a teacher for help, and a quarter of participants identifying strategies learnt at school like ‘BODMAS’ or the ‘4 B’s’. Practicing by themselves or talking the problem through with friends were also popular strategies. A number of children felt they needed to apply their problem-solving and creative thinking skills, which some told us they really enjoyed doing.

A summer follow-up, the range of strategies engaged in were similar. However, participants did now appear much less likely to *‘ask the teacher’* than at baseline. This difference may result from developing a more independent attitude to learning over the course of the academic year.

3.2 Aspirations

What do you think you might like to do when you leave school?

Interestingly, at baseline almost everyone had an idea of something they would like to do after they leave school. Just over 40% of participants identified a specific profession including: teaching, architecture, law, dentistry, medicine, childcare, social work, emergency services, veterinary medicine and archaeology.

The next most popular answer, identified by around a quarter of respondents, was a career in professional sport, most commonly a footballer or gymnast. A minority wanted to teach dance or martial arts, or identified other roles within the sports industry.

Artistic activities of some kind were also popular aspirations, and a wide range of occupations were mentioned, including: dancing, singing, writing books, designing toys or clothes, music, photography, painting and pottery. A few participants had an interest in *'working with animals'* but not specifically as a vet (included in the analysis as a *'profession'*). A few others were interested in working in new media, including as a *'YouTuber'* or in game design. Two participants wanted to start a business, but did not specify what type of business this might be.

Parental or family role models were frequently identified, with participants often identifying the job of their parent or close relative as something that they would like to do themselves.

In the follow-up discussions, all but one participant had ideas about what they wanted to do when they left school. Once again, the professions featured most highly in the discussion, and now with even greater dominance with almost 60% of participants identifying a specific profession as something that they would like to do. The range of professions mentioned was even wider, with a few professions appearing that were not mentioned at baseline, including Astronaut, Scientist, Engineer, and Nurse.

Motivations for pursuing certain careers varied, with the most common motivations being perceived (high) salaries, opportunities to do something that the participant thought was worthwhile, and pursuing a career in something that the participant enjoyed and/or felt that they were particularly skilled:

"I want to be a doctor because then you earn the good money."

"I want to be an astronaut. Because I already know lots about the stars and everything in space."

"A police officer. So that I can really help out the community."

Many participants were influenced by their parents' profession, as well as those of adult family friends and older relatives. A few participants told us that their family had already decided what they career they would pursue, and most accepted their family's suggestions, though a few did not:

"My Dad wants me to be a nurse. I just said no."

"A nursery teacher, like my cousin."

"My mum, she works for a technology development company and she likes it... And I just want to... develop and create better technology too."

The media also seemed to influence a number of participants who had been inspired by seeing people doing particular jobs on TV, or by wanting to emulate professional athletes and YouTube stars. The proportion of participants identifying a desire to pursue a career in professional sports had almost halved at follow-up, although still accounted for 14% or responses:

“I’m interested in [art] because I started watching this little programme called Mr Maker when I was little and he started me off with it.”

“I want to be an actor. I’d like being in films and adverts and stuff. I’ve always watched them and thought I’d like to be in them too.”

“I watch football a lot and I like it, I like it how they’re skilled people. So I want to play football when I’m older... and Messi got £250,000,000.”

“I see TV shows with judges and lawyers and I want to experience how it feels to go and do something like that and how it feels to win a case.”

Participants were also clearly influenced by the activities they engaged in everyday, like looking after pets and younger children. Success in certain subjects, such as sports or arts, or clubs, influenced their sense of what they might choose to do in the future. Participants often offered suggestions to their peers based on what they seemed to be best at in the classroom:

“I want to be a professional ballerina and a professional dancer because I’m already a ballerina.”

“I’d like to work with animals. Because I’ve got two dogs and one cat and I really enjoy playing with them every day.”

“I’m thinking of being a coder because I’m really good with laptops and computers. And I wanna make games. My brother likes doing that, making games, as well.”

“I like playing loads of sports, and I’d like to be the one showing those sports to the children.”

“I go to St John’s Ambulance on Mondays and also my Auntie is a midwife, so I know lots about it. Also I watch some like hospital shows on TV as well.”

These results show that future jobs are something that most participants have given quite a bit of thought to, and that many participants are aware of a broad range of options. Aspirations are clearly influenced by what is immediately around them in terms of the adult role-models, and role-models portrayed in the media.

It is also clear that the activities participants are regularly engaged in have a strong influence on their thinking about the future, with enjoyable activities that participants feel that they have a certain aptitude for featuring prominently in the thinking of many participants. It is notable that a broader range of possible future careers was identified in the follow-up discussions, after most participants had undertaken a greater number and range of activities than at baseline.

3.3 Knowledge of Higher Education

What can you tell us about the University that some people choose to go to after they have left school?

The majority of participants who were aware of University at baseline related the stories they had been told by relatives who were at, or had been to, University. These accounted for just over a third of the discussion of University at baseline, and all but one of these stories were positive. A number of participants told us they had visited people living at University, or had been taken to University by a relative studying there, which most had enjoyed. Echoing some of the discussions around career aspirations, many participants said they wanted to follow the footsteps of parents or siblings who had studied at University. Knowing someone who had been to, or currently attended, University was a strong motivator for participants wanting to go there too.

The most common reason that participants gave for some people choosing to go to University was that it increased the likelihood of getting a job and/ or the range of job options open to an individual. A few participants felt that people's future earning potential would certainly increase if they had been to University:

“Is it like extra learning, so that you can earn, so that you go there to have a better job and earn more?”

“My other brother has, like, one last year in the University until he gets lots of money. And he's only 21.”

“If you wanted to apply for a new job, it might help you quite a lot. Because you could say, look, so I've been to University. I have the higher qualifications.”

“People who own a company, they like to see young people having all these certificates and awards of learning.”

Around 16% of participants said they didn't know anything about University or were confused about why people chose to go there, or about who could go there. Some participants said they knew that you progressed from school through to University, but were unsure why or what people did there.

A small number of participants said that Universities were ranked in terms of their quality, so it was important to choose a 'good' University. One said that her brother would help her make sure she chose well. Some knew that university provided the chance to live in a new area, while a few others named local universities of which they were aware (University of Wolverhampton and University of Birmingham).

“Some people might go to a University far away so that they could spend some time off somewhere else. Like a sort of holiday.”

“There's this place, it's near ASDA, where you can stay until you've finished educating in University. Like a little flat.”

Discussions at follow-up were notably dominated by participants being much more specific about which careers required university education, naming legal work, teaching, and medical professions, along with a general focus on a university education supporting future career

aspirations. Just as at baseline, many participants felt that university improved a person's job prospects, job choice and employability.

However, a key difference was that almost a fifth of participants now talked about how continuing learning might be interesting and fun, something that did not feature at all in the baseline discussions. This reflects the ethos of Children's University, which aims to enthuse children about learning as means to develop their aspirations: "Children's University... introduces children to the joy of learning, brings a sense of wonder in the world around them and develops their confidence and aspirations for the brightest futures."⁷

Typical comments included the idea that getting a degree could be an enjoyable challenge, or that it might make people more generally knowledgeable and interesting to those around them. This change appeared to show a broadened understanding of the opportunities offered by Higher Education:

"It gives you more qualifications so you can do more things and then you have a better CV and people might decide to choose you over other people who might not have enough."

"You learn much more harder things. And I like hard questions."

"When they leave school they want to learn more because they find it really interesting. Also, they want to learn more because, then, by the time you get older, then you're going to have kids, grandchildren and if they get stuck and they ask you something you can just tell them, or help them, you'd be able to give them a bit of help more."

"You'll be wiser."

Just as at baseline, participants talked about relatives at University, and the stories they had been told, all of which were now positive. A number told us that university campuses are big, mentioning visits to relatives at university and having visited the University of Wolverhampton for Children's University. Many talked about people who go university having fun, making new friends and having 'great experiences'. Again, many related the stories they had been told of family members' University days:

"My Dad, he's a smart person, and he went to University and said that he had a great time, so I'd like to go. Just because I think it's a great experience."

"My parents, well a lot of their friends are from University. So you can make friends that are lifelong friends as well as the learning and getting better qualifications."

"My mum went to University and she told me that because she learned more in University, now she finds her work easier."

⁷ <http://www.childrensuniversity.co.uk/home/about-us/what-we-do-and-why/>

3.4 Thoughts on Attending University

Do you think that University is somewhere that you might like to go?

At baseline, the majority of participants did want to go to University, though around 40% were unsure or said that it was somewhere they wouldn't want to go.

Of those who said that they might like to go to university, most felt it related to a specific job they would like to do, or would improve their job prospects. Two said that their parents would expect them to go. Four participants said they wanted to go, but were worried about leaving home so would probably try to go to a local University.

"I have to. My parents expect that of me...They said it was a very good experience for both of them and that I really should do it."

"I'd like to go but I'd like to still sleep at home."

"I'm probably going to have to go to an aeroplane University [to learn to be a pilot]."

Of those who were unsure about going to university, or who said they did not want to go to University, two said they wanted to stay at home, two said it was "too expensive". Two felt it wasn't relevant to what they wanted to do (sports, home-based work).

"I might go straight to my job, because I want to do art at home, and I already do art at home, so I can just do that."

"[I don't want to go] because my mum went and she had to be there a long time... I really missed her."

"If I'm going to go forwards in sports, reading stuff out of textbooks I don't think is going to help me. I think more apprenticeships will help more."

"I have to think about it because University is gonna cost more than £100. And then, like, my Grandad... he said he wasted his money on it."

At follow-up, participants were more likely to say that they wanted to go to University than at baseline, and less likely to firmly say that they had decided not to go. Around the same level were unsure (figure 4).

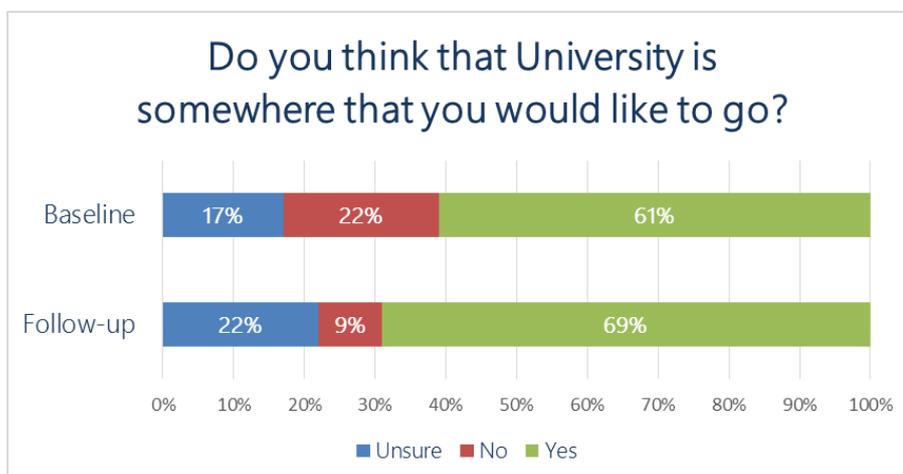


Figure 4: Responses to the question 'Do you think that University is somewhere that you would like to go?'

During these summer discussions, participants gave us a broader range of reasons as to why they would probably go to University in the future, including having fun, making new friends, meeting interesting people, and having great experiences. No-one mentioned being worried about leaving home. Some participants were directly inspired to go to University because of their experience of Children's University.

"I want to go to the place where Children's University is [University of Wolverhampton]. Because over there they've got like a big lunch area where you can eat, I saw that... and there's a playground that's loads bigger than our playground... It's a nice place."

"I'd quite like to go to a sports university. Not only to play sports but to do sports, er, sports science. That different type of stuff."

"Not a lot of people from my family went to University so I just really want to be one of them. I want to succeed."

Of those who said that did not think that university was somewhere that they would want to go, some felt it was prohibitively expensive and a few felt that college courses would be more practically-focussed and suit them better. One felt college would be less tiring, and another said they didn't enjoy sitting listening, typing and working in groups so felt they would be better working on their own, such as running their own business. Some participants talked about being very unsure about what job they wanted to do in the future, so couldn't yet decide whether University would be right for them.

"Too much money, yeah. It's too much money and sometimes people say they don't really think it's worth it."

"I don't know though, because you might change your mind about what job or what sport to do. I remember last time [2017 interviews] all of us saying we wanted to be something with animals and now we've all completely changed it. So you never know."

3.5 Expectations and Experiences of Children's University

At baseline, participants were most excited about the opportunity to 'try new things' and saw Children's University as 'a chance to do lots of fun things'. Participants were also pleased that the effort they were putting in to activities outside of school would be rewarded, and were excited about the idea of getting certificates and a graduation. Several were motivated by the thought of 'winning points' and seeing how high they could go. One participant talked about the best thing being that they were not being forced to take part.

Participants in some schools had seen others graduating or had already received a certificate, and were excited by the idea of going to the graduation at the end of the year:

"I'm really looking forward to what we might get up to. Maybe lots of art. Maybe lots of quizzes and questions."

In one of our assemblies before people got given certificates from Children's University."

“I like being rewarded for the extra hours that we do out of school, being rewarded for the extra hours of learning that we do...”

“I like Children’s University because its helping you achieve things.”

At the summer follow-up, almost all participants who had attended a graduation ceremony identified this as the aspect of Children’s University that they had enjoyed the most. The sense of celebration, and having ‘*earned*’ this through their own efforts, was foremost in the discussions. Distinctive elements of the graduation were highlighted, in particular ‘*throwing the hats*’ and ‘*wearing the robes*’.

Participants from one school spoke enthusiastically about an inspirational speaker at their graduation, who had talked about how he had experienced challenges at school as a result of undiagnosed dyslexia and mild autism. He spoke about learning sculpture from a young age, and about how this helped him to overcome personal and learning challenges to become a celebrated professional sculptor. Participants highlighted both listening to the speaker’s story and viewing his work as experiences that had added to the ‘sense of occasion’ at the graduation, and had been inspiring for them.

Several participants excitedly told us how they had been ‘*treated*’ by their families after their graduation, and many had enjoyed having the chance to celebrate with their friends and teachers (e.g. playing with friends after the ceremony, ‘*eating cheesecake*’, having a group photo). Others enjoyed seeing their parents’ obvious pride at their achievement:

“I like it when we graduate and throw the hats in the air!”

“You get to wear the gowns and hats and a gold sash and you get to take a picture... I got my Bronze Certificate.”

“I loved chucking that hat!”

“I liked the graduation because it was kind of funny because when I looked across to the parents, some of the parents were crying.”

“When I got the certificate my mum was so happy. So much that she wanted me to go to the shop and get anything I wanted [for tea].”

“You know now what it’s going to be like in real university when you graduate.”

“I was really proud of myself.”

In addition to valuing the graduation experience, participants had also clearly enjoyed taking part in the clubs and activities that had been part of their Children’s University experience, and excitedly talked about the things they were doing and places they had been. Some had enjoyed participating in activities with their families too, whilst others felt Children University had helped them to try a wider variety of activities:

“It gives children other chances to become better and to think about different activities to do, and to help them stay fit.”

“I like doing all different things and changing, instead of doing just the same thing every time. I liked doing different clubs.”

“I like doing the activities with your family. We made strawberry iced lollies once, and we always go out to the park to make things with the nature we find there.”

Participants appreciated the fact that their hours of activity were being recorded and that they were rewarded for it, and several talked about how this motivated them to continue with their extra-curricular activities:

“Children’s University can give you a great target. So for me at the start the hours, I was thinking ‘I’m never going to get 30 hours’. And I did achieve 30 hours. I felt so amazed and happy.”

“It makes you want to do more hours and do the work well so you can graduate. I used to do a lot of tennis because I liked it and also because I wanted to get the hours.”

“I like getting the certificates... It makes me feel that I’ve done something good”

3.6 Issues Identified by Participants

Most participants had enjoyed taking part in Children’s University, but a small number talked about problems they were having.

In order to collect Children’s University ‘hours’, which build up towards awards, children are encouraged to take part in learning activities in their local community and further afield, such as taking part in local sports clubs or visiting museums and libraries. Most Children’s University participants combine learning hours from after school clubs with learning hours from these external ‘Learning Destinations’ to achieve their awards. In order to ensure that Learning Destinations provide high quality learning activities and experiences with a ‘wow’ factor, they need to register with Children’s University and undertake a ‘validation’ process that focuses on quality assurance.

The validation process is straightforward, with the aim of making as many learning experiences available to as many children as possible. However, some potential Learning Destinations choose not to participate, which can create an administrative barrier. This can be perceived by participants as unfair, as they do not get recognition for their participation in certain activities. In addition, some children felt they had ‘missed out’ because they had not fully understood how to gain credit for hours undertaken at external Learning Destinations:

“I haven’t been able to get a lot. Because I go to dance often but they haven’t had their Children’s University done [club validation].”

“I thought, like, when you go to places, I handed it to the workers and then they just put their signature. But you actually had to take pictures and then show it to the teachers so they could stamp it... And I went to loads of places!”

Though most seemed to thoroughly enjoy the graduation, two participants were clearly very disappointed with their awards (bronze and silver), feeling they had just missed out on a higher level award. Two others felt ‘embarrassed’ by having to stand up in front of their peers and parents, or having a group photo sent out to parents, although they still largely enjoyed the graduation experience.

One participant had decided not to take part in Children’s University because they didn’t like group activities. Another wanted to take part but their mother refused because of fears about the costs of going to learning destinations, like the zoo:

“I like doing my own things, doing something like that in my free time, instead of doing clubs... I don’t really like clubs.”

“I wanted to do it but my mum said no because I don’t do any clubs... I’d either have to go the clubs every day or she’d have to pay loads of money to go to the zoo or somewhere every week. And she really can’t do that.”

A couple of participants felt they were being ‘pushed’ into doing Children’s University by their parents, and made to go to activities they didn’t want to. One participant talked about feeling very fatigued by all the after-school activities:

“My mum just said its best to do this. So she tells me what I should do and I do it. I don’t really have much to do with it. I don’t really choose to do it.”

“I’m a bit tired of doing all the stuff I do... Football on a Monday, Tuesday I do swimming, Wednesday I do cubs, Thursday I do running club. Friday I don’t really do anything, that’s free. And then on Saturday I do football training, then I have to go somewhere else. And then on Sunday I always have to play a match for football!”

Section 4 – Key Findings

The BCCU delivery model is very flexible, and the discussion groups confirmed that different schools implement Children’s University in different ways. Some schools offer a large number of clubs which form the bulk of Children’s University participation for their learners, whereas other schools focus on rewarding and celebrating participation in out-of-school clubs and activities. BCCU offers ‘holiday activity sheets’ that allow participants to receive ‘points’ for completing a range of short activities at home or with family members: it appears that some schools choose not to issue these sheets, whereas in contrast some others enthusiastically promote this form of participation to the extent of creating their own additional activity sheets.

There is also diversity in the approaches taken to graduation, with some schools hosting these on their own premises, whilst others place great emphasis on the experience of visiting the University of Wolverhampton.

With such a great range of approaches to implementing Children’s University, along with different levels of engagement among learners in the same school, assessing the overall impact of BCCU is challenging. In addition, Children’s University represents just one element of the experience of participating children throughout the school year, and so caution must be exercised when seeking to attribute the observed changes in attitudes and behaviours to participation in Children’s University.

Nevertheless, several strong themes were identified that were consistent across schools regardless of their chosen approach to Children’s University, and which were also consistent with the views of teachers and parents/carers identified in the September 2017 ‘interim’ evaluation report. The inclusion of some participants at the baseline data collection point who had already experienced a Children’s University graduation ceremony strengthens the evaluation. The responses of these ‘previous graduates’ contrasted with other participants at baseline, but were remarkably similar to the data collected from the test cohort at the ‘follow-up’ data collection point. This strengthens the evaluation by providing evidence to support the assertion that the observed difference can be attributed, at least in part, to participants’ experiences of Children’s University.

4.1 The Critical Importance of Graduation Ceremonies

The interim evaluation report identified that schools viewed the graduation ceremony as the single most important factor in the success of Children’s University. The formality of the ceremony was identified as significant in emphasising and celebrating achievement. This was viewed as boosting the confidence, self-esteem and sense of achievement experienced by participating children, as well as being a key mechanism for engaging parents and carers.

The discussion group data confirms these findings, highlighting the symbolic role of the graduation from the participant’s point of view, both as a motivating factor to engage with activities, and as a highly valued celebration of effort and achievement.

The impact of the graduation ceremony on participants did not appear to depend to any great extent on the location in which it was held. Participants who had visited the University of Wolverhampton for their graduation talked about how this had added to their ‘special’ experience, with some clearly learning more about the opportunities offered by university as a result of this visit. However, the key benefits of motivation to participate and the sense of achievement upon graduating were felt by all participants, regardless of whether they travelled to an external location for their graduation or celebrated in their own school.

4.2 Impact on Attitudes to Learning

The interim evaluation report identified that schools and families regarded Children's University as making a positive contribution to children's attitude to learning. The data in this report strongly supports this viewpoint, with evidence of change in the attitude to learning of participants during the course of the school year.

The significant increase in the rating response to questions related to *enjoyment of learning* and *enjoyment of school* for those selecting a below-average rating at baseline is particularly notable. **This suggests that Children's University has a particular role to play in helping to engage those learners who may have less enthusiasm for learning, with follow-up results for these participants increasing to a level equivalent to the overall cohort.**

Whilst it is acknowledged that the overall cohort increase in the rating response for *enjoyment of learning* did not quite reach statistical significance, the observed effect size suggests that, with a larger sample size, this may have been achieved. Moreover, 'baseline' ratings of previous graduates were equivalent to 'follow-up' ratings for other participants, suggesting that observed changes are likely to be linked to participation in Children's University. From the limited data available, there are indications that these benefits are likely to be sustained and built upon, an assertion that could be investigated by undertaking a longitudinal study over a longer time period and/or extending the evaluation to include a larger group of participants.

Qualitative data from discussion groups provide further evidence of positive changes to attitudes to learning. Participants identified a broader range of learning experiences both within the school environment and further afield at follow-up when compared to baseline. Greater resilience was identified, with participants more likely to view learning as a process that they benefited from most by utilising their own efforts, rather than relying solely on a teacher to 'impart knowledge'.

4.3 Impact on Participation

A significant increase was observed in the number and range of activities undertaken, with many participants encouraged to undertake new activities in order to receive Children's University recognition. This broadening of experiences may well have been a key contributing factor to the observed increases in self-reported enjoyment of learning.

The observed benefits did not appear to be associated with the absolute number of activities or amount of time spent undertaking extra-curricular activities, but rather the experience of trying something new and/or the sense of being rewarded for participation. This may be one factor in explaining the greatest impact being observed for those who were previously less engaged with learning and/or school, even where the number of activities they were undertaking at follow-up were less than the overall average.

4.4 Impact on Aspiration

This evaluation has not sought to investigate the specific impacts of undertaking a greater number or range of activities. However, it was identified that many participants based their future aspirations on what they knew and what they felt they had an aptitude for. Children's University claims that 'Children can only aspire to what they know exists', and this evaluation has found **evidence of aspirations broadening as awareness of different activities has grown.** Therefore, it is reasonable to suggest that by enabling children of primary school age to experience a wider range of activities, the seeds of future opportunities may be sown.

4.5 Impact on Views of University

Awareness of the opportunities offered by university increased between baseline and follow-up. It was clear that, at baseline, family history of HE was a crucial factor in determining a participant's knowledge of university. At follow-up, there was more detailed and varied discussion about what a university is for and why some people choose to go to university. The proportion of participants saying they do not think that university is somewhere that they would like to go more than halved between baseline and follow-up.

Frequent references were made by those who had attended the University of Wolverhampton for the graduation about how it had been different to how they had expected. Even those who had celebrated their graduation in their own school showed an increased awareness of university, and a greater potential relevance to their own future.

This indicates that the Children's University experience has a significant role to play in raising primary school children's awareness of university, in particular among those with little or no family experience of higher education.

4.6 Impact on Confidence and Self-Esteem

This evaluation did not formally assess the confidence and self-esteem of participants, and due to the variation in school approaches to delivery it would be difficult to do this reliably. However, themes arising from the discussion groups highlighted how participating in Children's University had mostly likely increased many participants' confidence that they could achieve even higher awards in the future, increase their knowledge, and progress to university 'for real'. Participants also talked about having tried new activities about which they were unsure or nervous in order to collect their Children's University 'points'. **Having overcome their initial anxieties to participate, some now felt increasingly confident about doing such activities in the future.** Others talked about how learning something new could provide an enjoyable personal challenge, both now and in the future.

The sense of achievement, in particular highlighted by the experience of a graduation ceremony, appeared to impact positively on the self-esteem of many children. Participants talked of their amazement and pride regarding the awards they had been able to attain with Children's University. The visible pride of their parents or guardians who attended the ceremony was clearly also significant for a number of children.

It is also reasonable to suggest that the notable increase in *enjoyment of learning* and *enjoyment of school* for those selecting a below-average response rating at baseline is due in part to an increase in confidence and self-esteem among this group. This supports the views of teachers, as explored in the interim evaluation.

4.7 Negative Impacts

Although the overwhelming weight of evidence in this evaluation is of the positive experience for participants, a small number spoke about disappointment and frustration associated with Children's University. Most notably:

- Disappointment at failing to achieve a desired level of award;
- Frustration, and a sense of unfairness, with 'un-validated' extra-curricular activities not counting towards an individual's award;
- Disappointment at not being able to participate due to actual or perceived barriers, including cost of participation.

In some cases, the engagement of parents appeared crucial in achieving a positive experience, in particular for accessing out-of-school opportunities. This presents a potential challenge for ensuring equality of opportunity, and perhaps highlights the importance of rewarding personal increases in participation, rather than focussing too strongly on total hours spent undertaking activities.

Section 5 – Conclusions and Recommendations

5.1 The Impact of BCCU on Participating Children

This evaluation has identified a range of impacts on participants, most notably:

- An increased engagement with and enjoyment of learning, in particular among those with a lower level of engagement at baseline;
- An increase in the number and breadth of extra-curricular activities undertaken;
- An increase in the level of awareness of university, and the perceived relevance of university to participants;
- A broadening of aspirations, with a greater awareness of possible future options.

5.2 Key Considerations for Future Developments

It is noted that the BCCU delivery model is flexible. The interim evaluation identified that schools value this flexibility in order to shape Children’s University to meet the individual needs and resources of their school. This evaluation identified that the key elements for creating positive impact for participants are the opportunity to try new activities, and the celebration of achievement through the graduation. Beyond these elements, variations in delivery did not appear to significantly alter the impact of the Children’s University experience for participants.

For these reasons, it would appear prudent to maintain flexibility in the delivery of BCCU, and to avoid a prescriptive approach to new developments. Nevertheless, there would be value in considering possible developments in a number of areas in order to maximise the positive impact on participants.

5.2.1 Graduations

It is strongly recommended that graduations remain a key focus of the BCCU model. There would be value in considering ways to further enhance the graduation experience, for example:

- Developing a bank of speakers who can provide an inspiring talk at all ceremonies, including those held in schools. Where this is not possible, a recorded speech that could be played at a number of different events may offer a suitable alternative;
- Ensuring that graduations retain a clear link to individual achievement, enabling participants to recognise and value the fact that they have ‘earned’ the celebration. However, this is likely to have most overall impact when emphasis is placed on recognising an individual’s learning and development, rather than focussing on ‘who has accumulated most hours’;
- Ensuring that graduations retain a ‘special’ atmosphere. Celebration drinks and snacks, along with opportunities for photographs with friends and family, are highly valued, even where these are quite simple;
- Graduations hosted at the University of Wolverhampton appear to offer additional positive impacts to those held in school. There may be value in identifying ways in which schools can be supported to visit the university

campus, whilst recognising that there are strong opinions on the relative merits of hosting graduations in school. There was some evidence to suggest that the first graduation experience is the most impactful for participants. There may be an opportunity to support schools to deliver an in-house 'first' graduation, and then to build on this experience by travelling to campus to enhance the impact of subsequent graduations.

5.2.2 Development of Low-Cost and Easy-Access Activities

There is some evidence to suggest that there are barriers to participation for certain groups. Working with schools to offer opportunities for children to take part in extra-curricular activities without the need for high levels of parental engagement would help to ensure equality of opportunity.

The 'holiday activity sheets' were identified as one way in which children could build up Children's University participation hours for minimal cost, and this may offer one route to extending access. This would also assist in increasing opportunities for independent learning, which are valued by participants as a way of building their confidence and sense of achievement.

5.2.3 Review of Validated Learning Destinations

There is some evidence to suggest that the impact of BCCU is somewhat reduced for children who are participating in extra-curricular activities that are not validated to earn credit towards Children's University awards.

Whilst ensuring the quality of learning experiences should remain a priority, there would be value in identifying ways to recognise the full range of learning undertaken by participants.

5.3 Future Research and Evaluation

This evaluation has identified a range of positive impacts on participants that can be linked to their participation in Children's University. However, the strength of the conclusions that can be drawn are tempered somewhat by the limited sample size, the relatively short 'follow-up' time period, and the variety of approaches to delivery taken by schools. There would be value in undertaking further research and/or evaluation to strengthen these findings, in particular by:

- Evaluating impact over a longer time period;
- Investigating the relationship between self-reported enjoyment of learning/school and educational attainment/progress;
- Comparing the progress of Children's University participants with non-participants.

5.4 Concluding Remarks

This evaluation has demonstrated that BCCU is highly valued by the children who participate, has a positive impact on attitude to learning, and enables participating children to develop a greater awareness of the opportunities created by learning. Together with the interim report that investigated the views of teachers and parents/carers, this demonstrates that BCCU is delivering a positive impact on engagement with learning and development of aspiration among primary school aged children.