



# Careers in Initial Teacher Education (CITE)

*Summary Report 2019 - 2020*

## Project Overview

The North East Local Enterprise Partnership (NELEP), along with NUSTEM, were funded by the Careers and Enterprise Company to develop and deliver the Careers in Initial Teacher Education (CITE) project during 2019 - 2020. CITE was a 1-year feasibility study designed to create and pilot training materials that would support Initial Teacher Education (ITE) students to embed STEM careers teaching ideas and models within their teaching practice, and to investigate the realistic possibility of this training being part of their placements within primary schools during their training.

The project tested an intervention aimed at Initial Teacher Education (ITE) students during their training year(s). The intervention provided targeted training and resources to boost and develop trainee teacher capacity to engage with careers related learning at a primary level. In particular, it aimed to aid integration of careers related learning into curriculum lessons, supporting students to evidence progress against the teaching standards framework, and longer term help to broaden of aspirations of pupils in the classrooms.

## Measures of success

The success of the project was determined on the following measures:

- **ITE students are more confident in using resources that support integrating of careers related learning in the curriculum.**
- **ITE students feel more confident in challenging stereotypes in careers related learning.**

## Programme Outline

Trainee teachers were recruited via careers leaders in primary schools that were part of the NELEP Primary career benchmark pilots. Trainees who were on placement in the schools at the beginning of the 2019/20 academic year were able to join the project. They would then continue to implement the learning from the project in their next placement.

CITE provided three training sessions about careers in the primary school for trainee teachers and their mentors

The training consisted of three sessions exploring unconscious bias, careers aspirations and employability characteristics. Each session was followed by a gap task which allowed further reflection on the ideas introduced in the session.

Session	1 Careers Education and Unconscious Bias	2 Career Aspirations in Primary school	3 Employability characteristics and role models
Overview	This session provides an introduction to the gendered nature of subject and career choices that children and young people make, and how unconscious bias can contribute to this. It also explores how to reduce these effects.	This session explores NUSTEM research on the career aspirations of children aged between 8 and 11. It then introduces the Primary Careers Tool – an online resource to support the inclusion of careers related learning into curriculum planning and a simple model of adding the job into lessons is also demonstrated.	This session considers some of the characteristics that help to make people successful in their chosen careers. It introduces the STEM Person of the Week resource and presents findings from research on the use of role models and STEM Person of the Week.
Gap Task	Exploring unconscious bias in primary schools (using the Classroom Interaction Tool, Literature Content Tool, or Display Analysis Tool)	Planning and teaching using the Primary Careers Tool (using the NUSTEM Primary Careers Tool)	Planning and teaching using STEM Person of the Week (using a set of STEM Person of the Week cards)

## Key Deliverables

Covid-19 and lockdown (from March 2020) altered the logistics of the CITE project. The partial closure of schools made it difficult to maintain contact with ITE students over the course of the CITE project and affected participation rates in Session 2 and Session 3. Delivery of the sessions was moved online, and training materials altered to work in a remote-delivery format.

	Targets	Actual
<b>Session 1</b>	Delivery of session to 35 ITE students	Delivery to 27 students
<b>Session 1</b>	Creation of associated learning resources	3 learning tools and learning package created
<b>Session 2</b>	Delivery of session to 35 ITE students	Delivery to 26 participants
<b>Session 2</b>	Creation of associated learning package	1 learning package created
<b>Session 3</b>	Delivery of session to 35 ITE students	Delivery to 15 participants
<b>Session 3</b>	Creation of associated learning package	1 learning package created

Additionally, the online nature of the sessions allowed the invitation to take part in the project to be extended to any interested teachers in participating NELEP Primary career benchmark schools. This opportunity was taken up by a number of teachers: 17 attendees (out of 26) at CPD 2 and 11 attendees of CPD 3 (out of 15) were qualified teachers. Despite having more participants registered to attend each session, not all signed up were able to make it to the final sessions, and target numbers were not met. 8 participants (3 ITE students and 5 mentors) attended all three of the sessions.

# Evaluation Overview

## Model for Evaluation

The evaluation employed qualitative reflexive writing, asking ITE students to reflect on elements and outcomes of the central research questions, as well as their own learning and practice following each CPD session. It was hoped ITE students reflect on what they had learnt in the session, link the theory with practice and reflect on their own professional and academic practice. Additionally, reflective writing was also designed to be of use in scrutinizing the implementation of careers teaching ideas/tools shared in the CPD sessions within the classroom, considering different perspective and viewpoints, identifying barriers and challenges, what worked well and what didn't, and what they would do differently if done again.

Participants of face-to-face sessions were asked to complete a paper evaluation form, while participants of the online training sessions were asked to complete an online evaluation form.

	Participants	Completed Evaluations	% Completed
<b>Session 1</b>	27	17	63%
<b>Session 2</b>	26	9	35%
<b>Session 3</b>	15	7	47%

The response rate for online evaluations was lower than paper evaluations, due to the additional steps needed to complete evaluations, and so sessions 2 & 3 have evaluation response rates less than 50% of participants.

## Evaluation Summary

For all three sessions, participants agreed or strongly agreed that the training course met their expectations, was pitched at the right level and was clear and well-structured. Feedback showed that many participants had undertaken unconscious bias training previously but that this course served as a useful refresher and opportunity to *“reflect on your own practice and consider ways to adapt it”*. However, other participants were more surprised by what they learnt during the sessions. The tailored nature of the course was appreciated, *“It was really nice to have a course just aimed at primary schools. Many courses around careers are aimed at secondary schools. This was very useful.”*

While we had hoped that trainee participants would link their learning to progress against the teaching standards framework in their evaluation reflections, they did not do this. This could be related to the lack of classroom experience that the trainees were getting. However, in all sessions, participants reflected on how their practice would develop or change, and what they would do differently as a result of the training.

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*“We want as a school to raise aspirations and expose children to different careers and a barrier has been how to do this without a budget, but the resources shown today will help this.”*

CITE Participant

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**ITE students are largely confident in using resources that support integrating of careers related learning in the curriculum.**

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Overall participants demonstrated confidence in using resources from all three sessions to support integration of careers-related learning in the curriculum, reporting intentions to use the CITE resources within the classroom, and sometimes more widely across the school. However, there is some evidence that ITE students, while confident in how they would like to implement learning in the classroom, were less confident with how to go about this implementation, particularly in placement schools. ITE students were uncertain about what they would be able to do, and how much they could change within their placements.

Following Session 1, Careers Education and Unconscious Bias, participants all showed interest and enthusiasm to try out the tools in the classroom when the situation allowed. Many reflected on their commitment to share this learning with others in their schools, *"I will take the information back to staff to make staff aware of the impact of unconscious bias and for them to consider what they can do to reduce it."* The Classroom Interaction Tool was most commonly selected for trial by participants, and reflections showed excellent learning outcomes. The next most favoured tool to trial was the Display Content Analysis Tool, students found activities easy to complete, however the related reflections show that ITE students might require some support to get the greatest learning out of this activity. The least commonly selected tool for trial in the classroom, the Literature Content Analysis Tool, showed learning outcomes were on target, but that the choice of literature selected could limit the amount of learning potential. No students reported any perceived barriers to implementing these activities.

Unfortunately due to Covid-19, ITE students did not have the opportunity to use Primary Careers Tool within the classroom following Session 2, as was initially planned. However participant reflections show the Primary Careers Tool was seen as an *'easy and effective'* way to broaden careers knowledge and aspirations in schools. Participants described how they would apply the tool within their teaching, and others how they would like to apply this to other curriculum areas. A number of participants describe how the tool could be used more widely across the school in planning, staff training and CPD. One teacher wrote, *"I have contacted my headteacher about me showing this in a staff meeting when school is 'back to normal' as this would be a great tool for all staff."* This shows again how teachers have more capacity to act on their learning.

Again, due to Covid-19, ITE students were unable to trial the use of The STEM Person of the Week Resource within the classroom following session 3. Reflections indicated that it was seen as a "useful" resource to introduce role models. Participants showed confidence in STEM Person of the Week, sharing ways they intended to use in the classroom, and ways they would adapt the resource.

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**ITE students feel more confident in challenging stereotypes in careers related learning.**

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Participants' reflections demonstrated that they felt more confident and prepared to challenge stereotypes in careers related learning, coming up with adaptations to the tools and new ideas. Most participants reported that CITE had changed their thinking by raising awareness that more must be done to challenge stereotypes in primary schools. However, there is some evidence that ITE students, while

confident in how they would like to implement learning in the classroom, are less confident with how to go about implementing it during placements in the context of existing systems and hierarchies.

Following Session 1 participants reported their intention to challenge unconscious biases within the classroom, however these were largely focused on changing their own language and that of their colleagues to be more inclusive. Only one participant reported intentions to look more broadly as school literature. We would have hoped to see further reflections on challenging stereotypes coming from other areas of the

course, besides just gendered language. We feel that ITE students would benefit from some support with techniques and strategies to challenge stereotypes in the classroom.

Following Session 2, participants reflections reported confidence in challenging stereotypes in careers related learning. The large majority indicated they would be changing their behaviour to challenge career stereotypes, with ideas such as regular careers lessons, careers focused content and using role models for each topic. A few participants felt there were barriers to challenging stereotypes, including poor reception among staff, finding time in the packed curriculum and because of the significant impact of external influences.

The STEM Person of the Week presented in Session 3 was seen as a "useful" resource to challenge stereotypes within the classroom. After the training participants had greater awareness of the difficulties involved with challenging stereotypes and the greater efforts would be needed to generate impact. However, some participants displayed confidence these barriers could be overcome, *"It will be difficult initially but will be possible with suitable resources and planning in lessons to ensure this is avoided"*.

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*"As a school we need to reduce the underlying stereotyping that we may be falling victim to."*  
CITE Participant

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## The Feasibility of CITE

The feasibility study explored the following research questions:

### 1. To what extent can careers teaching ideas be carried out by initial trainee teachers on placements in primary schools without outside intervention?

Due to Covid-19 and partial school closures, the integration of careers teaching ideas by ITE students on the placements could not be fully tested. Only participants of session 1 were able to trial the activities within the classroom environment. The resources trialled following session 1 were well received and showed good learning outcomes, though we feel some support would enable stronger learning outcomes. Following Session 2 and 3 ITE students show confidence in the resources shown and how they would like to use these in the classroom. We also learnt that there was interest and enthusiasm for careers teaching ideas among existing teachers in schools.

### 2. To what extent can the embedded careers teaching ideas/tools be integrated within the existing education system, curriculum, school structures by ITE students?

While students showed confidence with the resources themselves, and how they would like to implement their learning in the classroom, some showed uncertainty in how they would do this in practice, would they be 'allowed' given existing school structures and hierarchies. We therefore believe that careers teaching ideas/tools would be embedded best with the support of an in-school mentor acting as a guide and advocate. We also found that teachers and school staff were interested to implement their careers teaching ideas/tools learnt during the training, and had capacity to embed this within the existing education system, curriculum and school structures more easily.

### 3. To what extent did the CITE project achieve its intended outcomes?

The full impact of the CITE project could not be tested as thoroughly as we hoped due to the impacts of the Covid-19 pandemic. However, we had found CITE made good progress in achieving its intended outcomes, in that ITE students are largely confident in using resources that support integrating of careers related learning in the curriculum, and felt more confident in dealing with challenging stereotypes in careers related learning. An unplanned finding from the project was that qualified teachers were also very interested in the training sessions, and would be happy to implement the resources in their classroom. The project can be considered successful.

## The Legacy of CITE

- Following on from the collaboration with the NELEP on the Careers in Initial Teacher Education (CITE) last year, we adapted the training materials for serving teachers, and were able to offer the three session CPD in the Autumn of 2019 and Spring of 2020. The training continues to receive positive feedback and has led to further collaboration with the NELEP and a Multi Academy trust to explore the impact of whole-school training in careers-related learning.
- NUSTEM continue to offer the training materials for use in CPD (online or face-to-face) for other teachers.
- The three sessions developed for CITE are planned to be part of the Northumbria University BA (Hons) Primary Education course from 2020/21, and resources will be shared with other teacher training organisations.
- NUSTEM's careers work was shortlisted in the UK Career Development Awards 2020 for best career-related learning in Primary Schools.
- The training materials, and a presenters guide, are available for ITE providers, and for schools to use. They can be downloaded from the NELEP North East Ambition [website](#).