Research study:
Preparing young people for the digital economy:
How the English computing curriculum fosters enterprise and entrepreneurship
at Key Stage 3

Participant Information Sheet (Teacher)
Date: 19ᵀᴴ of April 2016

Version: 3.1

Studying the Key Stage Three computing curriculum
This study will be looking at how teaching computing impacts on pupils'
attitudes and beliefs about working with computers in the future.

The purpose of this study is to explore the impact that the Key Stage 3 computing
curriculum is having on students' and teachers' attitudes toward enterprise,
entrepreneurship and working with computers in the future. The research will
be conducted through a mixture of observations and interviews.

Why have you been asked to participate?
It is important that this study takes place in authentic classroom environments
within the course of a typical school day. I am therefore seeking the support of
teachers and schools to allow me to observe their teaching and also conduct
interviews with them and their pupils.

Do you have to take part?
No, taking part in this study is entirely voluntary. Your relationship with your
school, the researcher or Lancaster university will not be impacted by choosing
not to take part in this study.

What will you have to do if you take part?
If you, your school, and the parents of the children agree to take part in the
study, I will spend time observing you teach a number of typical computing
lessons covering the normal material that you are delivering at the time. I will
also conduct a single semi-structured interview with you, any other teachers
who teach computing at your school as well as your head teacher/head of
department. During the observation I will ask for a small group of young people
to volunteer to take part in a group interview.

This research is not intended to evaluate you as a teacher, your ability to teach computing, or any specific way of teaching computing. Rather, this study is looking at the impact of teaching computing on students' attitudes about the digital economy.

During the study I will be taking notes while making observations. I will also be taking photographs and short video recordings of parts of the computing lessons. These short videos will supplement my notes, they will be a way of me capturing the broader atmosphere of the classroom. Although I may video parts of the lesson I will not be filming the whole lesson.   All interviews will be audio recorded and then transcribed. As these will be semi-structured interviews, they may feel more like a conversation. Any photographs and recordings may be used to supplement the notes and observations I make. Audio recordings of interviews used as part of the final analysis for the Phd thesis will be fully transcribed. Where photographs are used in my thesis or further publication every effort will be made to ensure that no individuals are identifiable, for example all faces and school logos or names will be distorted.

How will your data be stored and protected?
All data collected in this study will be kept on secure encrypted and password protected digital storage. All videos, photographic and audio data will be transferred from any recording device to a encrypted password protected hard drive at the end of each days observations, and then deleted from the recording device.

There are two forms of data which will be treated as described below. These are **non-anonymised data** and **anonymised data**.

Non-anonymised data (including video content, photographs and data linked to participant names) will be stored until the end of my Phd which should be approximately October 2017, although potentially could take longer. This enables me to analyze the data and produce anonymised forms of it. Only my direct academic supervisors and myself will have direct access to this data.

Anonymised data (in which participant names or other identifying attributes have been removed) will be stored for a minimum of 10 years and may be stored indefinitely. For example, audio data is anonymised by transcribing the events in the recording and using pseudonyms to refer to individual people. It is requirement of my funding from the Research Council that anonymised data is stored for this length of time. What I mean by transcription is that what people have said during the recording is written down; make something like script of what has been said. This is sometime done by computer software or in other cases done by a person

How will your data be used?
Anonymised data (including all observed classroom activity, and interview transcriptions) will be used for the completion of my Ph.D. thesis and corresponding academic publications such as papers or conference presentations.

Although I may use direct quotes either from interviews or observations in my thesis or other publications these will be anonymised, before appearing. As previously stated if I use any photographs or videos in my thesis or other publication, every effort will be made to ensure that individuals are not identifiable.

Non-anonymised data will never be used in this way and will only be used to generate anonymised data.

What are the benefits and risks of taking part?
By taking part in the research you are helping the investigation of the impact of the KS3 computing curriculum. This research will be exploring how the policy intentions which motivate the development of UK curriculum are then delivered through activities in the classroom and the impact this then has on pupils' attitudes towards enterprise, entrepreneurship and the digital economy. The final thesis written from this project will include policy recommendations about how the computing curriculum could better take its impact on young people into consideration.

You and your school may benefit from being involved in this project because you will have access to current research regarding teaching computing to young people. I have spent many months researching and understanding the curriculum, the policy context of it and the priorities which will go into evaluating it.I will be able to discuss this context with you throughout the study.

The risks of participating in this study are minimal. Your identity will remain confidential and will be anonymised on all project documentation and results, as described above.

What if you change your mind?

You can withdraw from the study at any time. If you withdraw within two weeks from the end of the fieldwork phase of the study (approximately October 1st 2017), all data that relates exclusively to you will be destroyed (both anonymised and non-anonymised forms). If you withdraw after the two-week period, anonymised data may be used as outlined above. If I destroy data as a result of your withdrawal, note that data such as in-class videos, in which you may appear peripherally, will still be retained. Please Note, that if you withdraw *during* the study it is possible that I may not carry out any further sessions at your school, depending on the feasibility of continuing to work only with the other teachers at your school; this will not affect your relationship with your school or Lancaster University.

Further information
Individuals involved in this study.

Researcher/ Ph.D. Candidate: Benjamin Wohl, HighWire CDT, LICA , Lancaster University, LA1 4WA, b.wohl@lancaster.ac.uk

First Supervisor: DR Lynne Blair, School of Computing and Communications, Lancaster University, LA1 4WA l.blair@lancaster.ac.uk | 01524 510360

Second Supervisor: Professor Martyn Evans, Manchester School of Art, Manchester Metropolitan University, Cavendish St, Manchester, M15 6BG Martyn.evans@mmu.ac.uk | 0161 247 1292

Observations and interviews carried out in your school will only be carried out by Benjamin Wohl who is DBS checked and will bring his DBS certificate with him to all observations. If you wish to carry out an additional DBS check for your school specifically please let me know.

If you have any questions about this project, please contact either Darren McCabe or Martyn Evans.

Concerns or complaints
If you have any concerns or complaints please contact:

Professor Gordon Blair
Head of Department, HighWire
Lancaster University
InfoLab21
LA1 4WA
Lancaster
G.blair@lancaster.ac.uk
01524 510303

This study has been reviewed and approved by Lancaster University's Research Ethics Committee.

Research study:
Preparing young people for the digital economy:
How the English computing curriculum fosters enterprise and entrepreneurship
at Key Stage 3

Participant Information Sheet (Pupil)

Date: 19th of April 2016

Version: 3.1

Studying the Key Stage Three computing curriculum

The purpose of this study is to explore the impact that teaching computing is having on students and teachers. Specifically I am interested in on how it may effect your attitudes towards working with computers in the future, using computers in employment or even starting your own business.

Do you have to participate?

Taking part in this study is entirely your choice Your relationship with your school or your teacher will not be impacted by deciding not to take part in the activities associated with this study. If you choose not take part in this study suitable alternative arrangements will be made this may mean either I will work with another class in your school where you are not present, or you may be given alternative work by your teachers.

You and your peers will be asked if you would like to take part in a group interview. Participation in the group interview is also entirely up to you.

What will this study involve?

I will be spending a number of days in your classroom to observe your ordinary computing/ICT lessons.

If you are interested you will have the chance take part in a group interview. The group interview will cover your views about computing, your perception of what you are learning in the computing sessions, and how you think you will use computing in the future. These group interviews will be audio recorded. These interviews will be semi-structured meaning they may feel more like a conversation or discussion rather than strictly answering a series of questions. The audio recordings I make during these group interviews will be transcribed. Transcription means that what people have said during the recording is written down, make something like script of what has been said. This is sometime done by computer software or in other cases done by a person

During the study I will be taking notes while making observations. I will also be taking photographs and short video recordings of the computing lessons. These short videos and photographs will be used to supplement my notes (help me remember what occurred), and give me a more accurate record of the general classroom atmosphere. I may use some these photographs only in my thesis or other publication. I will only use photographs in the publication themselves and only where it is not possible to identify individuals.

All audio recordings, which are used as part of my final analysis, will be transcribed.

How will my data be stored and protected?
All data collected in this study will be kept on secure encrypted and password protected digital storage. There are two forms of data that will be treated as described below. These are **non-anonymised data** and **anonymised data**.

Non-anonymised data (including video content, photographs and data linked to participant names) will be stored until the end of my Ph.D. that should be approximately October 2017.

Anonymised data (in which your names or other identifying attributes have been removed) will be stored for a minimum of 10 years.

How will data about you be used?
There are two types of information I will use for this study. Anonymised data is information which cannot be linked back to you specifically, this could be because I have summarized what you have said, or used a different name.

Non-anonymised data, is information which could linked back to you, for example because it a picture of you, or information that uses your name.

Anonymised data will be used for the completion of my Ph.D. thesis and corresponding academic papers. To explain, when I am writing up the results of my research, it will not be possible for some one to read it and know what you said.

Non-anonymised data will never be used in this way and will only be used to generate anonymised data. Which means, although I may write down or record what you say, or take pictures of your work, these will only be used to help me make notes, or to make create information which cannot be linked back to you.

What if you change your mind?
Should you wish to withdraw from the study, you many do so at any time. If you withdraw from the study within two weeks from the end of the fieldwork phase of the study (approximately October 1st 2017), all data that relates exclusively to you will be destroyed. If I destroy data as a result of your withdrawal, note that data such as in-class videos, in which you may appear peripherally, will still be retained.

Further information
Individuals involved in this study.

Ph.D. Candidate: Benjamin Wohl, HighWire CDT, LICA , Lancaster University, LA1 4WA, b.wohl@lancaster.ac.uk

First Supervisor: Professor Darren McCabe, Organization Work and Technology Lancaster University Management School, Lancaster University, LA1 4WA d.mccabe@lancaster.ac.uk | 01524 510950

Second Supervisor: Professor Martyn Evans, Manchester School of Art, Manchester Metropolitan University, Cavendish St, Manchester, M15 6BG Martyn.evans@mmu.ac.uk | 0161 247 1292

Observation sessions carried out in your school will only be carried out by Benjamin Wohl, who has A DBS check and has been approved by your school to carry out this work.

If you have any questions about this project, please feel free to discuss these with your teacher or with me.

This study has been reviewed and approved by Lancaster University's Research Ethics Committee.

Research study:
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Participant Information Sheet (Parent)

Date: 19th of April 2016

Version: 3.1

Studying the Key Stage Three computing curriculum
The purpose of this study is to explore the impact that the Key Stage 3 computing curriculum is having on students' and teachers' attitudes toward enterprise, entrepreneurship and working with computers in the future. The research will be conducted through a mixture of observations and interviews

Why has your child been asked to participate?
It is important that this study takes place in an authentic classroom environment within the course of a typical school day. I am therefore seeking the support of schools, parents and pupils to allow me to observe lessons and also conduct interviews with both pupils and teachers.

Does your child have to take part?
Taking part in this study is entirely voluntary. Your and your child's relationship with your school or Lancaster University will not be impacted by choosing not to take part in the study,. If you choose for your child not take part in this study either suitable alternative activities will be arranged for your child while the researcher is observing the lessons or the researcher may only make observation while your child is not present. I will ensure that your child's education is not negatively impacted as a result of this study.

What will your child have to do if they take part?
If you, your child, and your child's teacher and school agree to take part in the study I will spend a number of days in your child's computing/ICT lessons while they cover the normal material that would be delivered at the time. During the observation of lessons I will ask for a small group of young people to volunteer to take part in a group interview. The group interview will only take place with the consent of your child's teacher and will cover your child's views on computing, their perception of the value of the what they are learning in the computing sessions, and how they think they will use computing in the future.

This research is not intended to evaluate your child's teacher or your child's ability working with computers, or any specific way of teaching computing. Rather, this study is looking at the impact of teaching computing on student's attitudes.

During the study I will be taking notes while making observations. I will also be taking photographs and short video recordings of the computing lessons. All interviews will be audio recorded. These photographs and recordings will be used to supplement the notes and observations I make. All audio will be transcribed and used as part of the final analysis for the Phd thesis. Transcription means that what people have said during the recording is written down, make something like a script of what has been said. This is sometimes done by computer software or in other cases done by a person.

How will your data be stored and protected?
All data collected in this study will be kept on secure encrypted and password protected digital storage. All video, photographic and audio data will be transferred from any recording device to a encrypted password protected hard drive at the end of each days observations, and then deleted from the recording device.   There are two forms of data which will be treated as described below. These are **non-anonymised data** and **anonymised data**.

Non-anonymised data (including video content, photographs and data linked to participant names) will be stored until the end of my Ph.D., which should be approximately October 2017 although this potentially could take longer. This enables me to analyze the data and produce anonymised forms of it. Only my direct academic supervisors and myself will have direct access to this data.

Anonymised data (in which participant names or other identifying attributes have been removed) will be stored for a minimum of 10 years. Audio recording, for example, is anonymised by transcribing the events in the video and using pseudonyms to refer to particular people in those events. It is requirement of my funding from the Research Council that anonymised data is stored for this length of time.

How will data about your child be used?
Anonymised data (including all observed classroom activity, and interview transcriptions) will be used for the completion of my Ph.D. thesis and corresponding academic papers.

Non-anonymised data will never be used in this way and will only be used to generate anonymised data.

What are the benefits and risks of taking part?
By taking part in the research your child will be helping the investigation of the impact of the KS3 computing curriculum.

Your child's school will benefit from being involved in this project because they will have access to current research regarding teaching computing to young people. I have spent many months researching and understanding the computing curriculum, the policy context of it and the priorities, which will go into evaluating it. I will be able to discuss this context with your school throughout the study, and should you have any questions regarding these area please don't hesitate to contact me. At the completion of the project I will produce a summary of research, which I will distribute to the schools, parents and pupils have taken part in the project.

The risks of participating in these studies are minimal. Your child's identity will remain confidential and will be anonymised on all project documentation and results, as described above.

What if you change my mind?
You can withdraw your child from the study at any time. If you withdraw your child within two weeks from the end of the fieldwork phase of the study (approximately October 1st 2017), all data that relates exclusively to your child will be destroyed (both anonymised and non-anonymised forms). If you withdraw your child after the two-week period, anonymised data may be used as outlined above. If we destroy data as a result of your withdrawal, note that data such as in-class videos, in which your child may appear peripherally, will still be retained. Note that if your child withdraws *during* the study I may not carry out any further sessions with your child's class; this will not affect your relationship with your school or with Lancaster University.

Further information
Individuals involved in this study.

Ph.D. Candidate: Benjamin Wohl, HighWire CDT, LICA , Lancaster University, LA1
4WA, b.wohl@lancaster.ac.uk

First Supervisor: DR Lynne Blair, School of Computing and Communications,
Lancaster University, LA1 4WA l.blair@lancaster.ac.uk | 01524 510360

Second Supervisor: Professor Martyn Evans, Manchester School of Art,
Manchester Metropolitan University, Cavendish St, Manchester, M15 6BG
Martyn.evans@mmu.ac.uk | 0161 247 1292

Observations and Sessions carried out in your school will only be carries out by
Benjamin Wohl who is DBS checked and will being his DBS certificate with him
to all observations. A copy of Benjamin's DBS certificate will be held by the
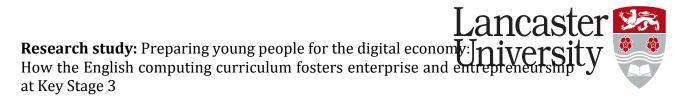school should you wish to see it.

If you have any questions about this project, please contact either Darren
McCabe or Martyn Evans.

Concerns or complaints
If you have any concerns or complaints please contact:

Professor Gordon Blair
Head of Department, HighWire
Lancaster University
InfoLab21
LA1 4WA
Lancaster
G.blair@lancaster.ac.uk
01524 510303

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Teacher Consent Form

Please tick each relevant box

❏ I confirm that I have read and understood the Participant Information
for this study.

❏ I have had the opportunity to consider the information, ask questions
about the research and have had these answered satisfactorily.

❏ I agree to take part in the research and understand that my participation
is voluntary.

❏ I understand that I can withdraw from the study at any time, and that if I
withdraw within two weeks from the end of the fieldwork phase of the
study (approximately October 1st 2017), all data that relates exclusively
to me will be destroyed (both anonymised and non-anonymised forms). If
I withdraw after the two-week anonymised data will be retained.

❏ I understand that data collected during the course of this study will be
stored as described in the participant information sheet.

❏ I agree that anonymised quotations can be used in any publications that
arise from this study.

❏ I agree to be videoed as part of the data collection activities for this study.

❏ I agree to be photographed as part of the data collection activities for this
study

❏ I agree to be interviewed as part of this study.

❏ I agree for any interviews, which are conducted with me to be videoed for
data collection purposes.

Date:
Name of participant:
Participant's Signature:

Research study: Preparing young people for the digital economy. How the English computing curriculum fosters enterprise and entrepreneurship at Key Stage 3

Parent Consent Form

Please tick each relevant box

❏ I confirm that I have read and understood the Participant Information for this study.

❏ I have had the opportunity to consider the information, ask questions about the research and have had these answered satisfactorily.

❏ I agree for my child to take part in the research and understand that my child's participation is voluntary.

❏ I understand that I can withdraw my child from the study at any time, and that if I withdraw my child within two weeks from the end of the fieldwork phase of the study (approximately October 1st 2017), all data that relates exclusively to my child will be destroyed (both anonymised and non-anonymised forms). If I withdraw after the two-week anonymised data will be retained.

❏ I understand that data collected during the course of this study will be stored as described in the participant information sheet.

❏ I agree that anonymised quotations from my child can be used in any publications that arise from the study.

❏ I agree for my child to be photographed as part of the data collection activities for this study.

❏ I agree for my child to be videoed as part of the data collection activities for this study.

❏ I agree that should my child wish to volunteer he/she may take part in a group interview pertaining to this study.

❏ I agree for any group interview my child takes part in to be videoed for data collection purposes.

Name of participant (child):
Date:

Name of parent/guardian: Signature of parent/guardian:

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Agreement to take part (in class observation)

Your school is working with Lancaster University to study the impact of the
computing curriculum.

Please sign at the bottom of the sheet if you agree that:

❏ I have had a chance to ask the researcher about this study

❏ I have had a chance to discuss this research both with my parents and
with my teacher.

❏ If I do not want to take part, I understand that I do not have to.

❏ I agree to allow a researcher to observe my computing/ICT classes

My Name _____

Date_____

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Agreement to take part (Group Interview)

Your school is working with Lancaster University to study the impact of the computing curriculum at Key Stage 3. You have volunteered to take part in a group interview. Please read the following statements and sign at the bottom of the sheet if you agree that:

❏ I have had a chance to ask the researcher and my teacher about the study.

❏ I have had a chance to discuss this research both with my parents and with my teacher, including topics that will be covered in the interview.

❏ If I do not want to take part, I understand that I do not have to.

❏ I volunteered to take part in a group interviews regarding computing.

❏ I agree to be audio recorded during the group interview.

❏ My views, as discussed in the interview could be used as anonymised quotes in the final research.

❏ I have had a chance to read and discus the topics to be covered in this group interview, prior to the interview itself.

My Name _____

Date _____