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Critical & Analytical Evaluation Report

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Article I. Critical Thinking

The proposal aims to investigate and develop an interactive, educational, cooking-based website for families, which would result in positive behavioural changes in order to improve healthy eating. Although the research conducted for the report states that a high quality website with a significant amount of information could lead to an increase in healthy eating, it is not clear that a website would be the best way to achieve a change in nutritional eating behaviours and it is not clear how long this change would last. (Fabri et al, 2013)

The proposal highlights similar projects that have failed in the past, for example a website providing knowledge on feeding infants to childcare providers and a website that provided feedback on health-related behaviours, although these two failed projects could be used as study probes in order to ensure similar mistakes are not made, the seed of doubt for the project success would have already been planted. (Fabri et al, 2013)

Looking at the project objectives a critical analysis of behavioural change in children will be made which will provide a better understanding of the topic, and websites of a similar nature will be reviewed in great detail which will provide a backbone for development. After the development is complete, a thorough investigation will take place to test the affect on eating behaviours, and recommendations and future plans will be made. (Fabri et al, 2013)

The proposal objectives are very strong and are a potential strength of the proposal in terms of how much research will be conducted, as this will provide experts with a higher level of knowledge and skill; however it is important to take into consideration the reliability of changing and maintaining healthy eating behaviours due to the study of behavioural change being at an early stage. It is also crucial to wonder why a timescale or a deadline has not been mentioned for this project, nor does it have an estimated budget. (Fabri et al, 2013)

The methodology outlines the utilization of qualitative and quantitative research methods. (Dix et al, 2004) explains qualitative data is detailed text whereas quantitative data is numeric. In recent years research combining the strengths of the two methods has now become essential in order to provide a strong analysis. (McCusker and Gunaydin, 2015)

Article II. Ethical Considerations

Ethical consideration is extremely important when undertaking a research project in order to ensure the correct conduct is being adhered to. Looking at the given proposal the main thing to consider is the fact that there will be human participants involved which automatically makes it a category 2 project. (Leeds Beckett University, 2015b)

In regard to the participants, appropriate subjects will be handpicked from the opportunity sampling stage. It is important that each participant is clearly informed of the project aims, objectives, methods and benefits, as well as their right to withdraw at any given time. It is also important to clarify whether this study is looking for voluntary or paid participants as the proposal is not clear on this matter. (Leeds Beckett University, 2015b)

A risk assessment should be carried out prior to the data collection process, as this can be used to format the appropriate documentation in order to inform participants of any potential risks that may occur. (Leeds Beckett University, 2015b)

The documentation should be written in plain English and it should explain how the data will be secured and how the data will be used, for example will the study provide confidentiality and anonymity? It should also explain the complaint procedure and it should be finalised with a participant signature, if they wish to comply. (Leeds Beckett University, 2015b)

Article III. Interview Method

There are three main types of interview methods; structured, semi-structured and unstructured. The chosen interview method to conduct was the semi-structured technique due to the fact it provides a mixture of open and closed questions, allowing room for probes in order to get a more complex answer. (Rogers et al, 2011)

The interview method will collect non-numeric data, and in order to measure the data qualitative methods will be used. Qualitative data is hard to analyse but provides great detailed results. (Dix et al, 2004)

Possible interview questions for this study are listed below.

1. What would you say is a healthy lifestyle and do you have one?
2. What would you say are healthy foods and do you eat them?
3. How much exercise do you think is needed per week and do you exercise?
4. What are the benefits of living a healthy lifestyle?
5. What is a typical family dinner in your household?
6. What would be the main reason stopping you from living a healthier lifestyle?
7. Do you enjoy exercise and if so what type of exercise?
8. What do you think about takeaways and how often do you eat them?
9. Do the media have any influence over you to live a healthier lifestyle and in what way?
10. Have you ever tried a healthy lifestyle plan, if so how did it go?

The questions asked are to get a background on the subjects to find out their views and opinions on what a healthy lifestyle really entails, it will highlight if they have an idea on what is nutritionally good for them, it will clarify whether they are currently living a healthy lifestyle or not and emphasize any barriers that may be stopping them.

The questions selected would also be appropriate to carry out again at the end of the study to determine whether any of the subject's answers have changed.

In order to analyse the data appropriately the results could be inserted into a table or a graph and compared against one another.

A table would be a useful tool for most of the questions to determine whether there are any similarities between candidate's answers, and a graph would be used when looking at answers that are either a yes or no answer, or an answer that contains numeric data.

Article IV. Questionnaire Method

A questionnaire or survey is a useful tool to gather data because it collects essential information without the need of a face-to-face meeting which allows candidates to answer questions honestly, as they do not feel as if they are being judged and there is no bias towards the answers.

When planning and designing a questionnaire it is important to consider a number of things such as the type of questions that will be asked, the way in which they are written, any piloting that may take place before they are distributed, the distribution itself, how they will be collected once complete and how they will be analysed. (Leeds Beckett University, 2015d)

For this study a range of question types will be used, there are 10 questions that are a mixture of open questions which require a written response, list questions which is a selection process from a list responses and quantity questions which require a numerical response. (Leeds Beckett University, 2015d)

The questionnaires will be distributed and collected via email with the use of a survey platform called Survey Monkey. A link to the questionnaire will be sent out to the selected participants along with a brief explanation of the study aims and objectives, the right to withdrawal statement and the terms and conditions on the confidentiality and anonymity of the study. (Leeds Beckett University, 2015d)

The link to the survey created for this study is as follows:

<https://www.surveymonkey.co.uk/r/RM58DF5>

The first five questions are looking into the participants current diet to see how much fruit, veg, protein, carbohydrates and ready-meals are consumed in there average day. These quantitative results will then be inserted into a bar or pie chart, and once the investigation is almost complete the candidates will be asked to fill in this questionnaire again to determine if a change in healthy eating has been made.

The sixth question looks at how many days in a typical week the candidate takes part in physical activity, followed by finding out if any nutritional supplements are being taken and the participant's current weight and height which will be used to work out their BMI.

Their BMI will be interesting to determine whether the candidates are underweight, an average weight, overweight or obese, and comparing these statistics to how much exercise is carried out per week and whether supplements are being taken or not will more than likely, reveal an interesting pattern.

Again their weight and BMI will also be a fascinating thing to uncover once the experiment is complete, to conclude if any weight loss has occurred. The last question will then ask whether the candidate has any special diary requirements and this may unearth another unexpected pattern.

Document Review

The UK Public Health England 'Your guide to eatwell plate' was the chosen external document to be reviewed in order to gain a further insight into the project. The approach for the document was a problem-orientated approach, in which the document was used to determine the sought after answers to the pre-generated questions. (Leeds Beckett University, 2015c)

A thematic analysis approach was chosen for the document which is a qualitative analytic method. The analysis was carried out in a deductive, top-down way due to prior theoretical knowledge and interest of the area that has already been established. (Braun and Clarke, 2006)

A checklist of seven questions has already been outlined in the initial project proposal and this will be used as a guide to analyse the given document.

The document was written by an unknown subject within the Public Health England organisation which is in association with the Welsh Government, the Scottish Government and the Food Standards Agency in Northern Ireland. (Public Health England, 2014)

The document is written as if it was intended for young adolescents due to the language and terminology used throughout the document, for example the document states “Many of the things we eat, such as pizzas.” Figure 1 shows a US study which demonstrates that pizza is more popular with the younger generation. (Public Health England, 2014)

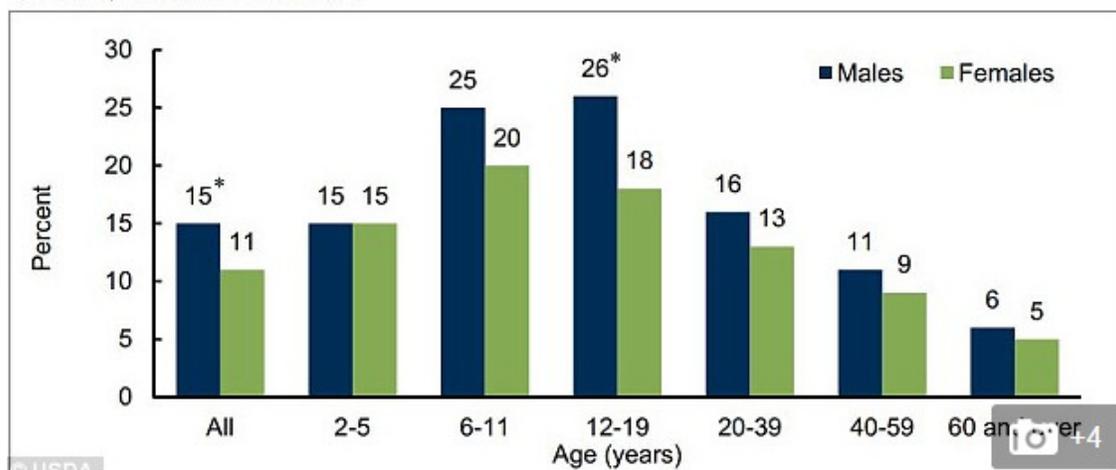


Figure 1: Percentage of U.S population who consumed pizza on any given day (Collman, 2014)

At the beginning of the document it also explains how the eatwell plate doesn't apply to children until they are between the ages of two and five due to children under two having different nutritional needs, this implies that the study is for people without children and who would not already know this. (Public Health England, 2014)

The document is focused on defining the different food groups and detailing how much of each food group should be consumed in order to provide a well balanced, healthy diet.(Public Health England, 2014)

The author made the assumption that people with special dietary requirements or medical needs were not reading the document as it states that the eatwell plate may not apply to them. Another assumption made was that readers already 'watch what they eat' due to references to 'calorie content' and certain food groups known to be 'fattening.' The author also gave examples of foods to avoid and foods to substitute, and examples such as crab would imply the author has made the assumption that readers will be working class with a steady income, perhaps not a single-mother on benefits.(Public Health England, 2014)

The reliability of the document can be questionable, although the information is likely and the government would have access to certain statistics there are no references to any studies that have been carried out in order to gather this data and there are no statistics that prove using the eatwell plate has been successful in maintaining a healthy diet and lifestyle.

In relation to the literature reviewed and the project aim the document could prove to be useful in terms of providing factual information on the different food groups and how much of each food group should be consumed, as well as providing substitutes for popular items, however some of the substitutes could be tailored to suit all incomes.

In conclusion this would be a good document to find information to include on the website but statistics would need to be backed up by studies and further research into the eatwell plate and its succession would need to be undertaken.

Article V. Diary

A diary will be used as part of the methodological triangulation; this will be a useful technique in order to gather detailed nutritional data over a specific time period. Due

to the amount of data that could be recorded it is important to specify what the focus and aim of the diary is. (Leeds Beckett University, 2015a)

Research diaries are conducted in a structured or reflective manner. A reflective log would reveal a lot of personal information about people's feelings and thoughts towards the study, describing people's experiences, observations, incidents and emotions, and this is a great way to gather qualitative data, however for this study a structured research diary would be more appropriate due to the nature of the study and what we want to record. (Silvanus Trust, 2015)

For this project a structured diary would be useful for participants to use after each meal time; recording what they have eaten and at what time. It would also be useful for participants to make notes on any exercises completed – where this took place, what type of exercise this was, what time this was and if any equipment was used.

The format that would be best used for the diary in this project would be a paper diary because the target audience is families and finding time to sit at a computer and complete an online diary or a blog every day may be difficult, especially with children around, a study proves that recording data on paper is faster, requires no passwords and results cannot get mysteriously deleted. It would also be easy to forget about filling in an online diary whereas a paper diary is in front of you, so it will remind you to fill it in. (Kellaway, 2014)

Article VI. References

Braun, V and Clarke, V. (2006) **Using thematic analysis in psychology**. Qualitative research in psychology, 3 (2). pp. 77-101. [Online]. Available from: <http://eprints.uwe.ac.uk/11735/2/thematic_analysis_revised...> [Accessed 5th December 2015].

Collman, A (2014) **What's for dinner? Pizza, probably! Study reveals 1 in 8 Americans eat a slice on any given day**. [Online]. Available from: <<http://www.dailymail.co.uk/news/article-2557814/Whats-dinner-Pizza-probably-Study-reveals-1-8-Americans-eat-slice-given-day.html>> [Accessed 9th December].

Dix, A. Finley, J. Abowd, G.D and Beale, R. (2004) **Human-Computer Interaction**, 3rd Edition. [Online]. Available from: <<https://books.google.co.uk/books?id=luQxui8GHDcC&printsec=frontcover#v=onepage&q=quantitative&f=false> > [Accessed 22nd October 2015].

Fabri, M. Wall, A and Trevorrow, P. (2013) **Changing Eating Behaviours through a Cooking-Based Website for the Whole Family**. In: Marcus, A. Design, User Experience, and Usability: User Experience in Novel Technological Environments.

Kellaway, L (2014) **Digital diaries are no match for our paper past**. [Online]. Available from: <<http://www.ft.com/cms/s/0/13441b2e-2ee1-11e4-a054-00144feabdc0.html#axzz3u2Jnf0Nx>> [Accessed 11th December 2015].

Leeds Beckett University (2015a) **Research Diaries**. [Online]. Available from: <> [Accessed 11th December 2015].

Leeds Beckett University (2015b) **Research Ethics**. [Online]. Available from: <https://my.leedsbeckett.ac.uk/bbcswebdav/pid-1104352-dt-content-rid-3222719_1/courses/18926-1516/A05_ResearchEthics_HANDOUT.pdf> [Accessed 31st October 2015].

Leeds Beckett University (2015c) **Research Practice Document Review**. [Online]. Available from: <https://my.leedsbeckett.ac.uk/bbcswebdav/pid-1133304-dt-content-rid-3359364_1/courses/18926-1516/A09_DocReview_HANDOUT.pdf> [Accessed 9th December 2015].

Leeds Beckett University (2015d) **Surveys/Questionnaires**. [Online]. Available from: <https://my.leedsbeckett.ac.uk/bbcswebdav/pid-1128579-dt-content-rid-3337096_1/courses/18926-1516/A09_Survey_Handout.pdf> [Accessed 11th December 2015].

McCusker, K and Gunaydin, S (2015) **Research using qualitative, quantitative or mixed methods and choice based on the research**. [Online]. Available from:

<<http://eds.b.ebscohost.com.ezproxy.leedsbeckett.ac.uk/eds/pdfviewer/pdfviewer?vid=7&sid=0461740e-a532-4a45-9970-ccb51e398a63%40sessionmgr110&hid=103> > [Accessed 22nd October 2015].

Public Health England (2014) **Your guide to eatwell plate: helping you eat a healthier diet.** [Online]. Available from:

<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/340869/2014-250_-_eatwell_plate_Final_version_2014.pdf> [Accessed 9th December 2015].

Rogers, Y. Sharp, H and Preece, J. (2011) **Interaction Design: beyond human-computer interaction**, 3rd Edition [Online]. Available from:

<http://books.google.co.uk/books?id=bv_6BeCwwQC&printsec=frontcover&dq#v=onepage&q&f=false> [Accessed 20th November 2015].

Silvanus Trust (2015) **Keeping a Reflective Research Diary: Researching what's Good from Woods.** [Online]. Available from:

<<http://www.silvanustrust.org.uk/uploads/documents/GFW%20Resources%20for%20Local%20Partners/Reflective%20Research%20Diary.pdf>> [Accessed 11th December 2015].