

Level 3 Extended Project (9990) Candidate record form, production log and assessment record

Centre number	Centre name
12430	Featherstone High School
Candidate's full name	Candidate number
Candidate 3	

Notice to candidate The work you submit for assessment must be your own. If you copy from someone else or allow another candidate to copy from you, or if you cheat in any other way, you may be disqualified.

To be completed by the candidate

1. Have you received any help or information from anyone other than your teacher(s) in the production of this work?

Yes No

2. If you have answered yes, give details below and on a separate sheet if necessary.

3. Any books, leaflets or other materials (eg DVDs, software packages, Internet information) used to help you complete this work and not clearly acknowledged in the work itself must be listed below. Presenting materials copied from books or other sources without acknowledgement will be regarded as deliberate deception.

Candidate declaration I have read and understood the above and can confirm that I have produced the attached work without assistance other than that which is acceptable under the scheme of assessment.

As part of AQA's commitment to assist students, AQA may make your coursework available on a strictly anonymous basis to teachers, examining staff and students in paper form or electronically, through the Internet or other means, for the purpose of indicating a typical mark or for other educational purposes. In the unlikely event that your coursework is made available for the purposes stated above, you may object to this at any time and we will remove the work on reasonable notice. If you have any concerns, please contact AQA.

Candidate signature	Date _____
---------------------	------------

Supervisor declaration I confirm that the candidate's work was conducted under the conditions laid out by the specification. I have authenticated the candidate's work and am satisfied that to the best of my knowledge the work produced is solely that of the candidate.

Supervisor signature	Date _____
----------------------	------------

This form should be attached to the candidate's work and retained at the centre or sent to the moderator as required

Record of marks

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the supervisor

Marks must be awarded in accordance with the instructions and criteria in section 2.5.2 of the specification.

Summary information to show how the marks have been awarded should be given in the spaces below in addition to comments in other pages of this document and any supporting information in the form of annotations on the candidate's work.

Skill area	Maximum mark	Mark awarded	Supervisor's supporting statement
A01 Manage	10	10	Exemplary and early planning, each stage of the work completed well in advance of deadlines; a detailed project plan.
A02 Use resources	10	9	Wide range of sources consulted: firm and concerted efforts made to establish authority of the sources used.
A03 Develop and realise	20	20	Excellent decision making at every stage of the process; changes promptly made where appropriate; findings fluently and coherently presented, logically structured and clearly presented.
A04 Review	10	9	Consistent self-review of the project throughout, and own learning and performance evaluated honestly; outcomes clearly evidenced and conclusions clear.
Total	50	48	

Concluding comments

Candidate 3 is an outstanding EPQ candidate. His approach has been professional and organised at all times. The small number of changes he has made to the project over its course is a credit to his meticulous planning and foresight. He was always open to advice, and keen to hear other perspectives on his work. He acted promptly and effectively on advice offered. His report was very well written, with a strong focus on drawing together the evidence gathered to come to a clear answer to the question he posed himself.

Outline details of taught skills (specification 2.3 The Taught element of the Extended Project qualification) Record here details of relevant skills taught in a class/group and details of relevant skills taught individually to this candidate as described in the specification. Continue on a separate sheet if necessary.

Supervisor declaration I confirm that no work assessed for the award of the marks above is also to be submitted, or has been submitted, for any other accredited qualification(s).

Supervisor signature

Date _____

Contents

Candidate's full name

Candidate 3

Candidate number

Error!
Reference
source not
found.

To be completed by the candidate

Extended Project working title How significant have been the developments in dental braces since the 1960's?

Planned form of project Either written report
 Or _____ and accompanying written report

This document consists of the pages listed below. Additional journal material, planning evidence, research evidence, presentation evidence and review material may be added.

Page	Title	Date completed
1	Candidate declaration	12-10-12
2	Record of marks	
3	Contents	12-10-12
4	Record of initial planning	04-04-12
5 - 7	Project proposal and approval (Parts A, B and C)	21-06-12
8	Planning review	30-06-12
9	Mid-project review	28-07-12
10	End-of-project review	18-09-12
11	Summary	20-09-12
12 - 13	Presentation record (Parts A and B)	
14	Reflection	09-10-12

Is this extended project part of a group project?

No
 Yes If 'Yes', give brief details

Extended Project final title

How significant have been the developments in dental braces since the 1960's?

Record of initial planning

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate. This page records initial meeting(s) with your supervisor to agree your project proposal.

Your first idea for topic/title

How significant have been the developments in dental braces since the 1960's?

Your first ideas for research and development of your project

The project endeavours to address the various developments in dental braces since approximately the 1960's and to analyse the benefits of these developments, whilst evaluating the relative significance of these benefits. The benefits that will be analysed in the project include: economic, social and health benefits from the developments of braces. The project further aims to give particular attention to the varying significance of these developments in braces in different geographical regions, as the developments may not necessarily be available in the less economically developed areas of the world.

The written report will additionally address the other limitations in the benefits of braces by analysing the market competition of braces with other dental treatments such as dental implants, as well as the current negative social view of braces that reduce the significance of the developments in braces. By analysing each benefit in the development of braces, and the limitations in the development of braces, I will be able to assess the relative significance of the developments in braces whilst taking into consideration a variety of factors.

In order to achieve these aims and objectives I will use the Internet as well as books, journals, and articles to research this topic and to gain a sufficient understanding of the topic to make a reliable and justified conclusion on the significance of the developments of braces. I aim to use graphs and statistical comparisons of data to assess the significance of braces in different areas such as by comparing the number of people using braces in different countries, as well as conducting a questionnaire on a sample of people to gain additional evidence of the social impact of braces.

Your supervisor's main comments and advice

The advice received from my supervisor was regarding the measures I will use to assess the significance of the developments in dental braces and to ensure I use a wide ranging set of fields to evaluate the significance and to not solely use a single factor such as 'the number of people who wear braces' to assess the significance of the developments in braces.

Additionally, my supervisor recommended me to always evaluate the reliability of the sources I will use to research my topic, and to ensure there is no bias in the sources, in order to retrieve credible information during my research. Moreover, he further suggested for me to always ensure that the workload I will take upon myself for the Extended Project is manageable and realistic enough for me to be able to do it within the overall time period given; in order to achieve this he suggested for me to always remain organised.

Changes, clarifications or additions you have made as a result of your discussion with your supervisor

As a result of my insightful discussion with my supervisor, I have decided to use a variety of factors to assess the relative significance of the developments in braces such as:

1. The economic significance of the developments such as the financial impact on dental clinics as for example, Nitinol braces result in less appointments being required with the orthodontist freeing up his/her time to see other patients
2. The significance of these developments for the patient such as the reduction in pain
3. The greater ability to provide improvements to dental health.

I will also analyse further factors that reduce the significance of the developments such as the level of affordability of braces and the importance of dental health in third world countries.

In order to ensure I manage my time and organise myself effectively, I have decided to break up my Extended Project into different tasks and set myself intermediate deadlines for each sub-task to do for the project. I will strictly adhere to these deadlines and allocate the necessary time needed for each task in advance.

In addition, in order to evaluate the reliability of the sources I will use to research my topic, I shall consider their provenance, and the purpose with which the authors wrote the sources, in order to assess the credibility of the

information that they provide and thus, conclude whether to use their information in my report.

Supervisor signature

Date

Project proposal part A

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate

Title of the Extended Project

Present the topic to be researched in the form of a short statement/question/hypothesis with clear focus.

How significant have been the developments in dental braces since the 1960's?

Provide a brief outline, based upon page 4 of this document, of

- the researched or activity/task to be carried out and sources to be consulted

I plan on constructing approximately a 5,000 word essay which will analyse the significance of the various developments in braces by first analysing the developments and then assessing their importance via different factors. I aim to ensure that the report will not simply narrate the developments in dental braces but analyse them for their importance and significance, by viewing their benefits and limitations. In order to gather information for my essay, I will use a wide variety of sources including: the Internet to access websites to understand how current and previous dental braces worked; the British Dental Journal to access the latest developments in dental braces such as durable tooth-coloured wires and other journals written by specialist and thus reliable individuals such as professors. I further plan to meet orthodontists and professors in order to ask them any questions that I might have on this topic and to clarify any technical misunderstandings that I might acquire. The primary function of dental braces is to correct tooth irregularity and misalignments and by analysing the developments of dental braces, I will also be analysing how significantly better dental braces have become in this function as well as the impact the developments have had in other fields such as social, economic and psychological areas.

- the courses of study or area(s) of personal interest to which the topic relates

The topic I have chosen certainly relates to Biology, as dental braces affect the teeth which is part of the human anatomy and they cause pain in the cranial system which comes under the field of biology. Nonetheless, it does not relate to anything that I am currently studying in Biology and so my topic will go beyond our current course. The essay will also delve into subjects such as Sociology and Economics as the social and economical effects of the developments of braces will be considered however, neither of these subjects do I study. Additionally, my topic is greatly related to my future aspirations to be in dentistry and will provide me with a flavour of what I will be learning as an orthodontist. Lastly, as a user of dental braces, the essay will provide me with the much desired knowledge and understanding of the braces I currently wear.

- your proposed action

I will initially research the actual advancements in braces, such as the development from the use of stainless steel as the dental archwire to the use of shape memory alloys such as Nitinol, whose austenite crystal form created many benefits for example, longer intervals between visits to the orthodontists. I will continue to research information and developments in the Internet via websites such as <http://mrsec.wisc.edu/Edetc/IPSE/educators/memMetal.html> which belongs to the University of Wisconsin and hence, is a reliable source due to its status as a university. Once I fully understand the developments made, I will consider and analyse their benefits and limitations in order to assess their significance, whilst again using sources to aid my conclusions.

Furthermore, I plan on constructing a questionnaire for individuals who wear braces, in order to see the attitudes of a large group of people towards braces. I shall hopefully be able to make this representative of an even larger population and this should help me to further identify the social and psychological effect of braces. I will be ensuring throughout the questionnaire that their views remain anonymous.

Additionally, I will create my own graphs by combining data from different resources in order to identify patterns and trends between different variables. For example, I shall gather data on the number of people who wear braces in different countries, and assort the countries onto a scale of increasing development and thus see how the number of people who wear braces vary with the increased development of countries.

I have also decided to adhere to strict deadlines for each sub-task that my project has been divided into in order to ensure I remain organised throughout my endeavours to complete this qualification and to manage my time effectively for the project. I plan on completing my overall research into the developments in braces by the 18th June. Afterwards, I will complete my research into the effects and significance of these developments in my chosen factors such as social attitudes and patient care by the 8th August. By completing my Mid-Project review by the 1st August, I will be able to evaluate my research so far, and have time to undertake measures to improve my research and consider other factors for my research if necessary before my personal overall deadline on the 8th August. I have kept my deadlines well after my exams to prevent this project adversely affecting my performance in my other subjects.

Provide details of the courses that you are currently studying

Qualification Type	Subject
<i>e.g. GCE AS/A, Applied GCE AS/A, Diploma L3, VRQ, Modern Apprenticeship, BTEC</i>	<i>e.g. Mathematics, English, Health, Spanish, ICT</i>
GCE A2 Level	OCR Biology
GCE A2 Level	Edexcel Chemistry
GCE A2 Level	Edexcel History
GCE A2 Level	Edexcel Mathematics

Candidate declaration I certify that I have read and understood AQA's Regulations relating to unfair practice as set out in the notice to candidates below.

Notice to candidate You must not take part in any unfair practice in the preparation of project work required for assessment and you must understand that to present material copied directly from book or any other sources without acknowledgment will be regarded as deliberate deception. If you use or attempt to use any unfair practice you will be reported to AQA. If AQA is satisfied that you have committed an offence you may be disqualified from all subjects.

Candidate signature

Date 08-06-12

Project proposal part B

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the supervisor. Please comment below on the validity and feasibility of the proposal (project proposal Part A) as an Extended Project (specification 2.4).

	Supervisor's comments
Comment on the clarity and focus of the title chosen	The candidate has chosen a clearly defined topic that has scope for analysis but is also focused and manageable. The addition of a date clarifying the time period has made the question more focused.
Indicate the relation to, and development/extension outside of, the main course(s) of study or interest (specification 1.2)	The topic has links with Chemistry and Biology but is clearly more linked with Dentistry and Medicine, and also potential links with Sociology, Psychology and Economics.
Comment on the suitability of the proposed initial sources and research base	The candidate has identified the BDJ and a university website as initial sources, alongside approaching professionals directly. He should aim to explore what other journals are available, and also have a clear framework for how he is to approach medical/orthodontic professionals, bearing in mind professional codes of conduct, privacy etc.
Confirm that the project is feasible in the proposed timescale and/or indicate any potential difficulties	The project is feasible in the timeframe. Potential difficulties include: finding suitable journal articles that relate to the topic and deciphering the technical language used, and he should also have a clear plan of how best to seek and record information from the professionals he approaches.
Outline the scope to produce a project that meets the assessment objectives (specification 2.5.3)	A clear title has been selected and a proposed action detailed (AO1). The candidate has outlined some of the places he can locate resources (AO2), and now needs to locate specific resources that will assist him. The candidate has a good idea of the areas he wants to investigate and will now need to ensure that he collects and uses data effectively and is able to fully realise his project (AO3). He will also need to consistently review his progress and consider the strengths and weaknesses of the project (AO4).
Indicate proposed form and date of the presentation	The presentation, to a small audience of staff and students, will be delivered through PowerPoint on Tuesday 4th October 2011.

Indicate the expected format of the project product that will be submitted for assessment

Long written report

Live performance (e.g. music, drama, theatre, substantial presentation) plus written report

Electronic format (e.g. CD, DVD, video, program) plus written report

Artefact (e.g. prototype, model, artwork) plus written report

Is the project a contribution to a group exercise? YES NO

If Yes, confirm that there is a defined individual contribution by the candidate (specification 2.5.1 **Group Work**) YES NO

List other group members below.

Candidate No. _____ Candidate Name _____

Candidate No. _____ Candidate Name _____

Candidate No.

Candidate Name

Supervisor signature

Date

14-06-12

Project approval part C

Candidate's full name

Candidate 3

Candidate number

**Error!
Reference
source not
found.**

Supervisor's full name

Keith Paterson

To be completed by the centre coordinator

Comment below on the feasibility and acceptability of the proposal (project proposal parts A & B) as an Extended Project (specification 1.4)

Centre coordinator's comments

This promises to be a well-researched and exciting project and your passion comes through in the description of your research, resources and plan. I echo the statements of your supervisor regarding the use of resources and anticipate that it may take some time to locate appropriate journal articles. This should be factored into your time management for the project.

Approved



Approved subject to the implementation of the centre coordinator's recommendations



Resubmission required



Coordinator's full name

Amy MacLean

Coordinator signature

Date

21-06-12

Planning review

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate. This page records your outline plan at the start of your work.

Outline the next steps in your planned research/initial development

Currently, my main focus is to undertake further extensive research into braces. I have now made a detailed plan of how I aim to structure my essay and I have used my preliminary research into the subject in order to choose the suitable topics in the report. The intended breakdown of my essay currently stands as:

1. Introduction- Explanation of why braces are needed, what they are, the current types, and a brief outline of what the essay intends to deduce.
2. Developments- This will include the actual developments in braces since the 1960's, their subsequent advantages, and the limitations of these advantages. This section may comprise of several paragraphs as I analyse many different developments and evaluate their economic, social or psychological advantages. I shall also analyse the different types of braces such as ceramic, Invisalign or Nitinol and how they successfully address the different personal needs of patients.
3. Competition of Braces with other dental products such as Dental Implants.
4. Why braces are not significant? - This will assess the overall limitations in the significance of braces by analysing their importance in Less Economically Developed Countries which is minimised due to their low affordability in such countries as well as dental hygiene not being a priority for many of the individuals in LEDC's.
5. Ongoing problems with braces- This paragraph will include clinical cases where braces have caused further problems for the patient resulting in a more extensive treatment plan. Hence, this will address the difficulties and limitations of the developments in braces. However, I shall always be aware to maintain patient confidentiality when using clinical cases and I will ensure that all patients remain anonymous.
6. Current developments as well as those planned for the future.
7. Conclusion- I shall evaluate the benefits and limitations of the developments in braces throughout the essay in order to come to an overall conclusion on their significance.

Having broken down my essay into these topics, my research should become far more easier to manage and organise. I plan on researching each of these topics one at a time and allocating them a suitable amount of time per topic. I do expect some information to overlap between topics or find information that is relevant to another topic which I am not researching at the moment, and I shall make a note of those sources to come back to them at a later date. Moreover, I am flexible in terms of the structure of the essay, and if during my research I discover new valuable information or feel that there would be another topic to add in to my essay to further benefit my evaluation of the significance of braces then I shall certainly do so. Nonetheless, my current outline is a very useful guideline that I feel would aid me exceptionally in both my research and in structuring my report.

I have further ensured that my essay had minimal effect on my exams for my other subjects by keeping the deadlines that I have set for myself well after my exams, so as to give me ample time to complete the research for my essay and to not disrupt my other academic studies.

I also plan on using my work experience placement at a dental surgery in order to gain further information about dental care and hygiene whilst learning about the fundamental aspects of teeth and oral hygiene. Moreover, I have also arranged to discuss with an orthodontist any questions or queries I may have regarding my topic, and I hope to likewise do so with professors who teach orthodontics or dentistry. During my current research so far, I am continuously making a detailed record of every source that I have visited into my bibliography and I have as of date used: 1 University website; 3 Journals; 2 Company websites; 1 Government website and 2 Articles extensively.

Your supervisor's main comments and advice

My supervisor was delighted with my detailed plan and suggested that I could also evaluate the medical vs the cosmetic needs for having braces in my essay. He also recommended me to prioritise my points in the plan to know which paragraphs I may need to discuss more in the essay as I may need to cut down on some paragraphs to stay within the 5,000 word limit. My supervisor also cautioned me to be wary of information and always ensure that the information comes from a reliable and authoritative source with little bias. In addition, he also suggested that I find a way to be able to understand the technical information relating to dentistry that will be found in many of the sources I will use and to ensure that I can successfully extract as much useful information as possible in my discussions with dentists, orthodontists and professors whilst always maintaining a professional code of conduct.

Changes, clarifications or additions you have made as a result of your discussion with your supervisor and/or the comments from your centre coordinator

I have decided to take on board the comments and suggestions that my supervisor has given to me, and will include the evaluation of whether braces are primarily for medical or cosmetic needs in the topic 'Why braces are not significant?' in my essay. Moreover, I have also decided to double check the information and statistics I find in one source with other sources in order to see if the information holds true, thus increasing the accuracy and reliability of the information I will use in my report.

In my meetings with professionals, I shall always respect the confidentiality of the patients studied and prepare a list of questions that I have before the meetings to ask in order to make the discussions as effective as possible. I shall use this opportunity to ask about any technical misunderstandings I may have and then record everything I will have learnt from those discussions. Moreover, my supervisor had also recommended me to access more specific resources and journals to gather more information and to that end, I am now researching into the PUBMED and ADA library of medical and dental journals, as well as exploring the Dental Update magazine. To understand the technical language effectively I will use my meetings with the experts in the field to help in this matter.

Supervisor signature

Date 30-06-12

Mid-project review

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate. This page records your outline plan about half-way through your work.

Outline the successes, failures, additions and/or changes you made as you followed your plan at start of project

I have now successfully completed my research into my project and have commenced well into writing my report on "How significance have been the advancements in dental braces since the 1960's?" Initially, some of the information I had found was difficult to understand, particularly the shape memory properties of Nitinol archwires, which included highly technical language for example martensite and austenite crystal structures. However, after much continual research, and after comparing information from various sources, I eventually understood in great depth the mechanism of Nitinol archwires and other braces. The technical language, that existed in the journals and internet sources I reserached did prove a difficulty nonetheless, through perseverance and continuous research, I successfully managed to overcome this problem. I have also understood that the significance of the advancements in dental braces varies considerably depending upon which conditions they are analysed in, and that when considered in different contexts, the significance alters. I will explore this aspect to a great extent in my report.

Unfortunately, the desire of mine in meeting with University professors to discuss my topic and research with them did not succeed in materialising. The difficulty in creating an appointment with their busy schedules, meant that I was unable to gain added information from them. Thus, I did not manage to use all of the sources that I had initially planned. Nevertheless, I did manage to use university sources such as websites to gather information and feel that I have gathered a more than suitable amount of research to complete my report.

Overall, my highly detailed plan brought with it many successes, as it helped me to organise the research I was conducting. I sorted the information I found in my research into the different sub-topics of my report so that whilst I was writing my report, I could quickly and easily refresh myself with the knowledge that was relevant to the topic I was writing. Where there was an overlap between two topics, I have noted it as such in my research.

I have not made many changes to the report due to the simplicity of the question which simultaneously facilitates an extensive volume of knowledge, as well as the opportunity for a great deal of analysis and evaluation. However, one significant difficulty was that there were few books available regarding dental braces. Despite my research both online and in a library, I could not find any books relevant to my report due to the very specific area my question covers. As a result, much of my information came from journals and largely internet sources, however, I went to a great degree to ensure that all the sources of information I used was reliable.

During my research, I continuously double checked the information I was finding between different sources in order to strengthen the reliability of the information. Where there were discrepancies between one source and another, I did further research to see which source's information was supported by other sources, and took considerable account of their provenance to conclude which source's information was more accurate and reliable. Ultimately, I decided to accept information found in more reputable sources such as dental or orthodontic journals as more reliable.

From my research, it was evident that there had been numerous developments in dental braces. Hence, I concluded that it would be more suitable to select the major developments since the 1960's to analyse; otherwise, I felt the 5,000 word limit of my report would not be sufficient enough to evaluate every minor development. I decided that it would be far better to focus on a few developments with much detail rather than many developments with little analysis and evaluation. Outline your planned steps to complete your project

To date, I am well in line and ahead of the deadlines I have set myself. I plan on completing my report by the 5th September and feel this is a realistic deadline as it gives me sufficient time to do so. This deadline is considerably before the deadline set by the school so that if an unforeseeable incident occurs that prevents me from putting my full focus on my report, or if I desire to make further improvements to it, I can still do so and meet the school's deadline. Once I have completed my report, I intend on reviewing it, and checking it for any corrections. If during the writing of my report I feel the need to research extra information, I will more than happily do so.

I have decided to remove the third sub-topic in my plan: Competition of Braces, in order to ensure my report remains within the word limit. This topic does not add as much value to my report as my other topics and so I feel it would be better to eliminate this topic in order to have a more focused, and detailed account of my other topics.

Your supervisor's main comments and advice at this stage

My supervisor supported my approach to focus on a few developments and topics in a detailed, and analytical manner rather than focus on a vast number of developments with little analysis. He is further happy with the rapid progress I am making, and advised me to consider carefully how best to use my research, and to underpin my report with supporting evidence so that my report may be authoritative and reliable. My supervisor further suggested to me that I could review the introduction and the conclusion after the main body of the report is complete, and to ammend as appropriate especially if I feel that my perspective, towards my conclusion and introduction, changes after writing the main body. I feel this would be a useful method to employ in the final completion of my report.

He consulted me to use footnotes appropriately and taught me how to cite interviews in my report and reference them. My supervisor is very pleased with my commitment towards my deadlines, and generally advised me to consider the overall structure of my report as I write it.

Changes, clarifications or additions you have made as a result of your discussion with your supervisor at this stage

From our discussion, I have concluded that it would be wise for me to review my introduction and conclusion after I have finished my report, and will commence to use footnotes immediately. Throughout my report, I will always entail to use evidence to support my deductions, and I shall cite the interviews I conducted in the manner that my supervisor felt appropriate.

I have set for myself a deadline to complete my End-of-Project review by the 20th September, and I feel this would give me ample time to complete it whilst bearing minimal impact on my other academical studies. I have also set my deadline to complete the creation of my Presentation by the 29th September. These deadlines are well ahead of the school deadlines, and I hope to ensure I give myself enough time in case corrections need to be made and to ensure I do not fall under stress or pressure to meet tight deadlines.

Supervisor signature

Date 28-07-12

End-of-project review

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate. This page records the (near) completion of your project product.

Outline the successes, failures, additions and/or changes you made as you followed the plan in your mid-project review

I am incredibly delighted with my organisation in completing my report. I have now finished my report well ahead of the deadline set by my supervisor, exactly 3 weeks ahead, and I have kept in line with my own deadline. As a result, I am very happy with how I have managed the time for my report and my focus in writing it. By organising myself to have completed the report this early, I have become the first out of my peers to finish it, and have consequently alleviated myself of much of the pressure that I would have otherwise felt in completing the report if the deadlines drew too close.

As I followed my plan, I encountered a difficulty which resulted in me to change how I structured my report. Initially, I had planned to analyse many types of braces, potentially about 6-7 types. However, as I wrote the report, I realised that the 5,000 word limit was far too small to enable me to do as I desired. I came to conclude that it would be far better for me to focus on the three main advancements in dental braces and analyse their benefits and limitations in depth and have enough words left over to analyse the other limitations to the significance of dental braces rather than to discuss many types of braces in less depth and with a less holistic view on the significance of braces. I am confident and happy in this decision, and feel that my report addresses exactly what I had set out to do in my initial planning stages in February. Additionally, I felt it was necessary to remove certain topics in my report which I felt added little value such as 'Current developments as well as those planned for the future' in order to remain within the word limit. Although I had also initially considered creating a questionnaire to gather data on the social views of braces, I decided to not push forward this idea. There were many limitations towards using data from a questionnaire and the shortage of words in my report made me realise it would not be suitable to construct a questionnaire. The difficulty in gathering a large sample of data; the inability to create a truly representative sample of all of the UK due to only having access to the local community which consisted largely of ethnic minorities and the lack of value it would bring to my report due to my ability to access surveys which have already been conducted, proved to me that it would be wiser to not create a questionnaire.

My organisation of my research into the different topics of my report proved to be incredibly useful as I could quickly remind myself of all the relevant information for each topic to assist me whilst I was writing them. In my report, I carefully explained all the technical language I used in order to aid the understanding of the reader, and I have also managed to keep within the word limit due to the measures I undertook to do so. Due to braces being a fairly difficult topic to express solely through language, I decided to use pictures to visually aid the reader in for example, seeing the structure and the aesthetic improvements in braces.

Due to the specificity of my question, I could find no available or relevant books on dental braces even though I searched much. Hence, I used articles, journals and the Internet as my main source of research, nevertheless, I always ensured I used reliable sources by checking their provenance. I always ensured that I only used information that the sources were not biased towards. At times I received conflicting evidence regarding the benefits and disadvantages of the developments and in those instances I always chose to adhere to the more reliable evidence such as journals and studies carried out by reputable sources.

Although I had planned to use my work experience placements in a dental surgery to gain additional information, I was only allocated to a dentist and she had little knowledge regarding braces since braces are mainly the focus of the orthodontic profession. As a result, this was not very fruitful in terms of added information for my report.

Overall, I am very pleased with how I have conducted my report. The structure of the essay enables me to evaluate the significance of the developments of braces under different angles, and despite encountering difficulties, I am confident with the decisions I have made in altering certain aspects of the report. I would have liked to have written much more, however, due to having a 5,000 word limit, it would be unsuitable to have done so.

Outline any additional advice or comment that you received from your supervisor during this final stage

My supervisor was tremendously happy that I completed my report well in advance of the deadline. He is consequently pleased with the level of organisation and management I conducting this report with. I received valuable advice from my supervisor in how to improve my essay: for example, to provide an outline of what my essay aims to achieve at the beginning of the essay, and to not just rely on my contents page to do this. I understand that through this I can give better shape to the essay so that the reader will quickly understand from the beginning, the main purpose and structure of the essay. My supervisor further suggested I refer back to this in the conclusion in order to end the report in a clear manner which will address the outline of the essay. He also counselled me to mention the psychological significance of the developments in my conclusion.

Overall, my supervisor was very happy with the structure, and the level of analysis in my report. My supervisor commented how I can add detail to my bibliography, for example, by including the dates I accessed the websites due to the potential that the content may change slightly in the future, as well as to try to include the authors of the websites if possible.

Changes, clarifications or additions you made as a result of discussion with your supervisor in this final stage

I immediately set about to write an outline of my essay in the beginning, and then subsequently improved my conclusion as suggested: to evaluate the psychological significance of the developments. I also referred back to the outline in the conclusion as recommended. I completed all improvements to my report within two days, in order for me to have enough time to complete my presentation and keep to the deadlines I set for it. I plan on also reviewing my report to identify any potential mistakes to correct them, and to see if there are further improvements that I can make.

Supervisor signature

Date

18-09-12

Summary

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate. This page records the nature of your project product (abstract).

Outline (50 – 150 words) the nature of your final product, its main content and your conclusion

'How significant have been the developments in dental braces since the 1960's?'

My report focuses on the evaluation of the significance of the three most important developments in dental braces since the 1960's namely: the creation of Nitinol archwires, Lingual Braces and Invisalign. The advantages and limitations of each development are assessed and a holistic approach is taken on the current limitations of braces overall. The holistic view includes 'Why braces fail to be significant' and 'On-going problems with braces' which includes clinical examples of the failures in braces. The developments are generally assessed against the standard labial braces, which have stainless steel as the archwire. Overall, it is concluded that, despite the limitations, the developments have still been highly significant due to the great benefits they provide.

Presentation record part A

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate. This page records your presentation and its preparation.

Planned nature of your presentation (e.g. timing, audience, use of visual aids, slides, use of notes, etc.)

I have chosen to use a PowerPoint Presentation in order to present the findings in my report, and the conclusion and reflection of my project. It will last approximately 10 minutes long and consists of 13 slides. I have structured my presentation in a very similar manner to my report, however, the content will be much more simplified in order to be both understandable and interesting to the lay audience. The slides will only contain a few bullet points and will not be laden with information so as to not overwhelm the audience with information. Rather, my presentation makes use of visual aids in order to depict the braces as otherwise it will be difficult for the audience to have a good understanding of braces and what they look like, whilst also consisting of simple statements to reinforce my message. The information on the slides will also serve to prompt me to remember what to say.

The audience will consist of my supervisor, as well as other students with their own supervisors, the Head of the 6th Form, and other staff members. I have prepared notes on what to say, and have learnt them thoroughly, however, I am confident in my ability in public speaking and giving presentations, and so I will not take my notes with me during the presentation, so as to not be restricted to following the script when I speak. Instead I have prepared to a great extent what I will say, and then I will use the information on the slides to trigger my memory in case I momentarily forget. By not reading from the notes, I hope my presentation to be both engaging and interesting for the audience.

Briefly list the main content of your presentation

My presentation follows the same structure as my report with a few additional comments on my project as a whole. In my first slide, I will explain why I first decided to have my project centred around dental braces. Afterwards, on the second slide, I gave an introduction to the aims of my report and the three braces I will be focusing on in my presentation. In similitude to my report, slide 3 discussed the purpose of braces and how traditional braces work. My presentation then continued to follow the same outline of the report with slides 4-9 explaining the three developments in braces and their corresponding benefits and disadvantages, to then give a small evaluation of each brace's significance.

Slide 10 highlights 'Why Braces fail to be significant,' by considering the relative insignificance of oral health in Less Economically Developed Countries and the psychological stress that some braces can still incur. Slide 11 consists of a clinical scenario to indicate the imperfections of braces despite their developments. The twelfth slide then provides an overall conclusion to the significance of the developments in dental braces since the 1960's. This structure enables me to continuously refer back to the question and evaluate the significance of braces throughout the powerpoint.

My final slide, slide 13, contains a brief reflection on my Project overall, considering both my strengths and weaknesses in completing the project.

Changes, clarifications or additions you made as a result of rehearsal and/or discussion with your supervisor

My rehearsal presentation was a great success. My supervisor commented that I continuously referred back to the question throughout my presentation and that I had delivered it exceptionally well, with clarity. My feedback was that the planning and organisation that I spoke of in the slide 13 which consisted of my reflection, was apparent in my presentation as I was well prepared and confident in my topic. I managed to speak fluently without using my notes, and this came across to the audience as a good understanding of the topic. My supervisor was pleased with the content of my presentation and the confident answers I gave to their questions. I was informed that there were practically no improvements that needed to be made with my delivery.

Presentation record part B

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the supervisor. Record and comment below on the delivery of the presentation (specification 2.5.1 presentation)

	Supervisor's record / comments
The nature of the audience (include numbers of staff, students and others present)	An audience of around 20 people, with 5 other candidates present, 6 teachers, and about 10 Year 11 students (prospective EPQ candidates).
The nature of the presentation (include use of notes, use of display items, and use of presentation software)	Address to the audience supported by a PowerPoint presentation, delivered without notes.
Comment on the content and delivery of the presentation	Candidate 3 had a good rapport with the audience: a friendly and engaging manner. He gave an outline of his project and his aims at the start, and illustrated the presentation with images. He took a structured approach, outlining the significance of the three types of braces he had chosen to address. He considered the drawbacks of braces as well, and came to an overall conclusion. He also reflected on his overall experience of the project.
Comment on the response of the candidate to questions that demonstrated understanding and grasp of the project and/or its production (give examples where appropriate).	<p>Candidate 3 was able to respond thoughtfully and intelligently to the questions posed to him at the end of his presentation.</p> <p>Asked which of the three developments in braces was the most significant of those he had studied, he replied that it depended on the purpose of the braces: Invasalign being the most significant for those needing braces for cosmetic purposes even while they were worn, and Nitinol having the greater significance for fixing a wider range of alignment problems. This showed a clear understanding of the different types of braces he had studied, and an ability to prioritise and justify conclusions.</p> <p>When challenged that the vast majority of people do not need braces for medical/dental reasons but rather want them for cosmetic and psychological purposes, Candidate 3 asserted that there were indeed medical implications (on tooth decay and the enamel) of having an incorrect bite; also, that while most people's teeth would not face serious problems, the psychological reasons for desiring braces were also important for those considering them. This answer demonstrated a firm factual grasp of his topic, and a deep understanding of it, and a clear ability to analyse the information he had gathered, rather than simply recite facts.</p> <p>Lastly, when asked for his advice to prospective students, he replied that early planning was the key: early planning would allow the students to set off in the right direction and give the best chance of keeping on top of the project. Candidate 3 therefore had shown that when reflecting on his project, he did not simply think mechanically about certain steps to be taken but had a global perspective of one of important truths about successfully achieving in the Extended Project.</p>
Outline the nature of any additional presentation evidence that the candidate might add (e.g. speaker notes, handouts, presentation slides, recording).	PowerPoint presentation slides.

Supervisor signature

Date _____

Reflection

Candidate's full name

Candidate number

Candidate 3

**Error!
Reference
source not
found.**

To be completed by the candidate. This page records your own evaluation when you have completed your project product and given your presentation.

[To see how AQA complies with the Data Protection Act 1988 please see our Privacy Statement at aqa.org.uk](#)

AQA and City & Guilds are working together to provide Diplomas.

Copyright © 2009 The Assessment and Qualifications Alliance and the City and Guilds of London Institute. All rights reserved.

The Assessment and Qualifications Alliance (AQA) is a company limited by guarantee registered in England and Wales (company number 3644723) and a registered charity (registered charity number 1073334). Registered address: AQA, Devas Street, Manchester M15 6EX

The City and Guilds of London Institute. Incorporated by Royal Charter. Founded 1878. Registered Charity in England & Wales number 312832 and in Scotland SC039576. Registered address: 1 Giltspur Street, London. EC1A 9DD

Briefly summarise your main learning from completing this project. You might include new knowledge or expertise that you enjoy or find valuable, a consideration of your planning and organisation, changes you would make if you undertook such work again, advice you would give to others undertaking such a project.

Generally, I thoroughly enjoy writing extended essays, and it was no exception in this case. I enjoyed writing the report with a high level of detail and analysis. I would say my greatest strength and success was in my planning, organisation and management of this Project. I had made a very detailed plan very early on, in my Planning Review, and this provided me with a great deal of structure and clarity in both my research and in the writing of my report. This proved to be invaluable, and although I did slightly change the plan in order to ensure I met the requirements of the report namely the 5,000 word limit, the overall structure and essence of the plan remained the same, and it succeeded in its purpose as a plan.

Moreover, I am very happy with how I organised my report, in that I set for myself early deadlines, and kept them. This made the project far more manageable, and helped me to minimise the impact of the project on my other subjects. As a direct result of my early deadlines, I was the first to complete the report, and this greatly alleviated the pressure for me to complete my next work in the Project, the presentation. I noticed how others who did not follow the same pattern as me struggled with the stress of trying to complete the work of the Project in time for the school deadlines, and so am very grateful for the decisions I chose to make. I am happy with how I undertook my Project and the success therein of completing it. A regret I have in my project was that my aspirations to arrange meetings with Professors from nearby Universities never transpired. If I were to undertake a similar project with the knowledge that I now have, I would definitely try to arrange a meeting with the specialists far more early on in the Project than I did; this would have allowed me to book appointments further down the line where it was less likely for them to already be fully booked, and thus I would have had the opportunity to see them. One problem that I did encounter, was that I could find no available information on the usage of braces in LEDC's. This is understandable, however, if I did manage to find that information then it would have supported my deductions in Chapter 3: 'Why Braces fail to be significant?' to an even greater extent.

There were no books on my topic due to its specificity and although this made it harder for me to explore my topic, I feel I have gathered a more than sufficient amount of reliable information, always aiming to gather as much as possible from journals and other similar reputable sources. Having had a particular unique perspective on conventional braces due to being a current user, I was already aware of some of their disadvantages and other aspects of braces, however, I always ensured to double check my own personal experiences with the information I found in sources, and if they corroborated, then I deemed them reliable enough to put into my report.

I am happy that I managed to achieve the aims that I had initially outlined early on in the Project, and my question never needed any changes throughout the Project, as I had chosen it very carefully. The project was the first time that I had ever used the Harvard referencing system, and I learnt how to become proficient with this method, and hope that it will be a valuable skill for the future. I endeavoured to implement all the suggestions that my supervisor presented to me, as I was conscious of the fact that he could give me valuable advice during the Project and had far more experience than me in undertaking such projects. Through my undertaking, my research skills were greatly developed and I am certain that it has prepared me for future research tasks at University. I further feel that I honed in my extended writing skills, and my ability to analyse and evaluate a topic to a high degree.

As the qualification required it, I feel that I have greatly advanced my ability to be an independent learner and worker. By maintaining my self-discipline to keep to the deadlines I set, I have matured as a student and have learnt to be able to manage myself to ensure I could undertake this task along with all my other A Level courses.

If I could give advice to others undertaking an Extended Project, I would exhort them to produce as detailed a plan as early as possible. Producing a plan provides a very valuable framework in how to research and how to write the report, and ensures that the person will remain focused in what they are doing, and not become lost in the masses of information that is available. They should not be restricted by the plan, but it should rather be used to their advantage.

Overall, I found that I am greatly pleased with my Project. I have enjoyed writing such a detailed and thought provoking report. I had the opportunity to analyse in depth and be evaluative as I considered many different factors that affected the significance of the developments in dental braces. Above all, I managed to gain a holistic and very detailed understanding of my topic.