# **APPENDIX 3.2A**

# DESCRIPTION OF PBL SESSION AUGUST 17 2007

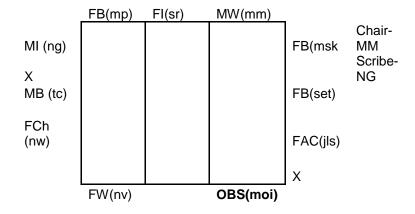
# BDS 5 START CASE BASED DLP – PROSTHODONTICS & ORTHODONTICS (MILSTEIN ORTHO CASE??)

# **DLP SESSION 2 – REPORT BACK**

# Fictitious names have been used throughout lesson description

START: 1401

FAC: Dr Boitumelo



Arrival times of students:

Stavros - 1403;

Mapula - 1404;

Stacy - 1404

Facilitator filling out forms and getting 'chair' info from students

Talk re 'still remember some of you clearly – Hemant!'

#### 1400-1405

Dr Boitumelo, myself and most of the students arrive at the CHSE PBL rooms. The rest of the students trickle into the room with Stavros arriving at 1403; Mmapula and Stacy at 1404. During this waiting time there is light-hearted talk amongst the students and Dr Boitumelo is busily filling out the student assessment forms and making small talk with them, telling them that she 'still remembers some of you clearly' and this remark seems to be directed at Hemant.

# 1405-1407

It looks as if Dr Boitumelo has finished with the paper work and is now examining the study models that are on the tabletop. She asks the group if they enjoyed the case. None answer instead there is laughter from the group and Mmapula says that she is tired, to which Dr Boitumelo asks her:

'tired of the case or what?'

However she (Mmapula) offers no explanation. There then ensues a discussion about the state / condition of the study models as some teeth on the model are broken. Some of the students retort that Hemant was the one tasked with the responsibility of looking after the models, and he tells them that when he had the models the previous day, there were still fine.

Dr Boitumelo asks the group if they are going to wait for Graham, and at that moment Graham arrives and joins the group. Dr Boitumelo jokingly asks him "are you flushed with success?" with reference to him just having had a test in MFOS at the end of his MFOS block.

#### 1407-1408

Stavros welcomes Dr Boitumelo and this signals the start of the PBL session. She jokes that they can call her 'Prof T' as she is standing in for him, to which the group laughs. Stavros explains what they decided on at the previous PBL session and how they are going to conduct the report back session and explains who is going to report on what aspect of the topics that had been identified for further enquiry. He invites Patrice to talk on the learning area he had to research on.

#### 1408-1412

Patrice explains the 'Child Act' (reading off a prepared script and talks to the group as well as engaging eye contact with members of the group). He explains and highlights the controversial parts of the act (which he reads off). He confirms that as the act has not yet been signed into law it is still considered a 'bill'. He explains the various 'groups' that he consulted with during his research – SADA, Medical, Law colleagues etc. Mmapula, Dimakatso and Hemant appear to be enthralled with the presentation and are watching Patrice eagerly and enthralled.

Stavros asks him a question, and Kajil follows it up with another related question. Patrice answers this and his response is affirmed by Janice and Dr Boitumelo who further confirms that it is still a 'bill' and therefore not law yet. She asks him what the official legal age of consent is but no one seems to be aware, so she provides the answer and tells them that it is 18 years with an additional comment that "they all want to be grown up before time". E.g. of the facilitator attempting to encourage discussion amongst the group by asking relevant questions pertaining to the learning area reported on (as stipulated in the Facilitator Guide).

#### 1412-1413

Patrice has ended his ppt and Stavros presents the learning areas he gathered further information on. He explains the relevance of the treatment plan and treatment sequence for this case. He offers an explanation on the treatment sequence for this case and asks the group about the extractions that may be needed for Mark's case, to which Kajil informs them that someone else will be presenting on the issue of extractions.

#### 1414-1420

Dimakatso's turn focuses on the primary dentition. She reads from a prepared script (other members of the group-Mmapula, Kajil, Stavros, Graham seem disinterested with Mmapula examining the radiographs, Kajil looking at her own documents, Stavros doing the same as well as writing something and Graham is actually reading a book!). Dimakatso explains certain aspects pertaining to the primary dentition and during this part she is not reading off a script instead she is 'talking to' the group and the explanation sound more natural, well thought out and informed. She has switched her attention to looking at Dr Boitumelo. Stavros nods in the affirmative to a point that Dimakatso makes: ie when Dimakatso offers that orthodontics would be the preferred treatment choice as the primary option.

#### 1421-1424

Stavros explains what was discussed by the group the previous day and Dimakatso interjects and offers more explanation. Stavros asks her if she looked at the primary teeth that are ankylosed and she answers by offering more explanation with reference to the articles that she used in researching her topic of discussion. She unpacks the detail required and offers evidence of what she is talking about, even when Stavros probes further, she is able to offer compelling arguments for her opinions / answers and she gives relevant options with contextualised examples and relates them to the actual case under discussion.

Stavros asks if anyone in the group investigated the surgical phase to which Graham and Stacy say they investigated the role of implant supported restorations.

Graham asks something that is inaudible to me and offers a suggestion as to how to run the report back session and the rest of the group seem to be in agreement with this suggestion.

# 1425-1428

Nandi explains certain parts of what she and Mmapula gathered more information on and Graham wants confirmation regarding what exactly they are dealing with: syndromes vis a vis random isolated, unrelated pathologic conditions and Dr Boitumelo gives an indication

that they are dealing with a syndrome case. There is a two way banter between Graham and Nandi regarding what issues are pertinent to the condition that Mark presents with. Stavros offers that they need to consider removable partial dentures as an option and discuss around that issue. Janice throws in a question about other possible treatment options for the immediate phase and Kajil alerts them to the possibility of considering orthodontic management.

The discussion still feels 'patchy and bitty' without a considered effort to link all the relevant issues that the students are throwing around. It seems as if they are throwing around broad issues and not unpacking them and relating it clearly to the case under consideration.

The discussion seems to lack integration and contextualisation of information gathered. Students report on the 'bare' facts and do not attempt to relate them to the actual case under discussion.

There also seems to be a lack of direction on how to run the lessons. This is evidenced by the fact that, a good twenty (20) minutes into the lesson, a student suggests how the lesson should be conducted. They may have been thrown out by the presence of a different facilitator in the middle of the case, even though they had been forewarned about this eventuality at the beginning of the case.

#### 1429-1434

Graham takes up the report back and starts presenting on the issues he researched on; he reads off a prepared scripts using it as a prompter and explains concepts, adding his own opinion or take to the issue being presented. He adds a degree of light heartedness by joking that he's 'a copy of Prof T's book" (this is with reference to a prescribed text in the subject area where the author is the head of the department). The rest of the group enjoy a good laugh over this, including Dr Boitumelo. Graham then draws the group's attention to the importance of tooth morphology with respect to partial denture design principles and relates it primarily to the case under review. There is an element of demonstrable' critical thinking' skill where the student demonstrates his own critical analysis of the issue under discussion

Stavros adds further reasons for the reported symptomology to augment Graham's explanations. Nandi asks to add something and offers that they can consider crowning the first molars and attaching precision attachments to increase the retention, to which Graham asks her why they would need to do that. No answer is forthcoming however

A separate discussion between Stavros, Kajil, Dimakatso and Mmapula ensues around the case. *It seems as if the group has lost focus of how to run the discussion*, and this continues for about a minute, before Dr Boitumelo interjects and asks the group why they think the Lateral Cephalograph was provided in this case.

#### 1434-1437

The students collectively answer that 'we don't know' and follow this with what sounds like embarrassed laughter. Someone offers that maybe the radiograph was included as the case under discussion is an orthodontic case but does not explain why.

Dr Boitumelo then gives a brief explanation of the important features and issues with respect to the case under discussion. This turns into a mini-lecture on what issues to look out for in such cases. Stavros then mentions the point about vertical dimension and makes an assertion that maybe an orthopantomograph (Pan) would be a more realistic view to source.

Dr Boitumelo explains how radiographic evidence / tools enhance the diagnostic process. Other points she raises are wrt the use of removable appliances and the different designs with the associated components. To which Janice contributes additional information re using the retainer as a partial denture by the addition on teeth to it.

Another question Dr Boitumelo poses is wrt the relevance of the height of the clinical crowns vis a vis the provision of crowns and Stavros is quick to offer the recommended guidelines regarding the minimum clinical heights required for consideration before crowning of teeth. This is expanded on further by both Janice and Nandi.

Nandi mentions the issue of the timing of the request for treatment – i.e. Mark preparing to attend his matric dance, and therefore maybe becoming more concerned with how he would look and does not want to be different from the other students. There is a discussion around the impact / influence of peer pressure on how one looks especially when wanting to belong to a particular group and being 'in' with the crowd.

#### 1438-1441

Stacy brings up (yet again!) the issue of the need for more detailed occlusal assessment and analysis. This is despite Prof T's assertion that the students can take the presenting model trimming as the presenting occlusion. She even offers the point on the possible need for a diagnostic set up in order to facilitate the occlusal analysis. There then ensues a discussion around occlusion and its relevance to the presenting condition with one suggesting that maybe they need to consider occlusion during the planning for the immediate treatment phase.

At this point Dr Boitumelo brings the group back to the case under discussion

'Can I bring you back to the scenario, does it say anything about a matric dance?'

She also tries to bring Mmapula's comment about Medical Aid's importance to the discussion. The group takes up on this suggestion instantly and a discussion around the importance of medical aid funding starts.

After about a minute Stavros asks the group to focus the attention on specific issues relating to the case at hand. Dr Boitumelo then contributes more information relating to Medical Aid and issue of dependants. She brings the group back to what is required of them in this particular case and reads out the actual text from the DLP note to self – quote the said text.

#### 1442-1453

Stavros offers that an implant supported prosthesis (ISP) is the best option and offers some of the issues that would need to be considered if this is the chosen option. There is a lot of lively discussion around the implant option with all the students contributing.

Having exhausted the implant opinion, Janice continues with the report back and her area of discussion relates to growth and classification of skeletal and dental relationships and their impact on provision of ISPs, especially in adolescents, considering the issue of submergence of implant fixtures. She gives reasons for the importance of timing of placement of the implant fixtures in such cases (i.e. paediatric cases).

Dr Boitumelo explains and alerts the group to the issue of orthodontic treatment (and specifically mentions that it is stated in this scenario). She leads them to start thinking about

involving orthodontic specialists and the value of teamwork (including other specialists) especially regarding the timing of treatment and different procedures. She explains the reasons for the need for teamwork.

She asks the group why they thought that implant supported prostheses were the BEST option (as stated by Stavros earlier) and passed a joke about 'titanium deficiency'. Stavros's reply points to the reasons why crowns are not a suitable option in this case and therefore their suggestion re implants, to which the facilitator queries the biological price inherent with the desired option. She has to explain and give answers to her questions.

Stavros then offers the option of using an overdenture to increase the vertical dimension, to which Dr Boitumelo asks why the vertical dimension needs to be increased. Janice offers the option of using an orthodontic removable appliance as another option for the same purposes and Nandi asserts that those same features can be incorporated into the overdenture and the facilitator corrects them and tells them that it depended on the treatment sequence. Dr Boitumelo then goes into a 'questioning' format to try and get clarity from the students on issues relating to the vertical dimension and when none is forthcoming she leads them towards thinking about doing a diagnostic wax up / set up. At this point Stavros picks up the lead and comments on the need to ascertain the presence of restorative space and Dr Boitumelo offers that the presenting case has negative (reduced) restorative space.

She directs the group through adopting a systematic process to the problem at hand in order to assist with managing the presenting case.

Several students raise the question of extrusion and how to manage / instigate that, and they continue the discussion to include orthodontic appliances and how these could assist in managing the vertical dimension issue.

#### 1454-1510

Following the discussion on orthodontic issues, Dr Boitumelo raises the issue of age and how it would influence the treatment planning. She leads and controls the discussion in a 'lecture-type' format: giving information and explaining concepts. She does not engage the students, nor ask for any comments wrt to them understanding what she is talking about:

She takes over and

- 1. The first thing to do will be to decide ...
- 2. Explains why space creation needed
- 3. Gives options 2 ways
  - A) can patient tolerate increased VDO
  - B) use bie plate
  - C) overdenture fabrication as
  - D) diagnostic denture for orthodontic management

She discuses orthodontics vs. Prosthodontics care, making argument for prosthodontics management. She uses 'contextualised' language e.g 'OH freak' to drive points / issues home. Other issue she brings out for consideration include the decision to use primary vs secondary dentition as possible appliance abutments and she uses the available tools – study models, radiographs, clinical pictures – to drive points home and to demonstrate what she is talking about / explaining.

All this explanation continues until 1500 and the students are busy taking notes during this time. At the end of her explanation, she asks them question regarding realistic expectations, she also brings in the context re TV (and uses Beckham's plastic surgery as an example) to the case. Most of the questions are answered by Janice. Mmapula adds that there will be a need to prepare the teeth as overdenture abutments and Nandi recalls Dr Boitumelo's comment re using the overdenture as a diagnostic aid to assist with the treatment planning in determining how much increase in vertical dimension Mark can tolerate. She also makes appoint of why she would choose the option of an overdenture as first option, followed by an implant restoration as a later treatment option (Nandi seems to have taken over the discussion from the facilitator at this point).

After the contribution from Nandi, Dr Boitumelo brings in the point regarding the partially erupted canines and the challenges associated with this picture / scenario. She gives definitive options / suggestions pertaining to the orthodontic management:

- as an interim measure, she suggests to provide a removable partial denture or splint to effect the required vertical dimension changes as well as establish Mark's tolerance levels
- 2. she suggests undertaking orthodontic to extrude the anteriors
- 3. she reiterates the need for further radiologic tests and suggests taking a Pan

The language used by Dr Boitumelo is very pedestrian – 'gooi the implants' – maybe in a bid to get the students attention.

She drives home the need for approaching the management of this case as a team and explains that the treatment depends on what other specialities can do for the prosthodontist / restoring dentist. She makes it clear that what is deemed 'best' is not the fastest and cautions the students from thinking this way – i.e provision of a quick-fix solution.

#### 1510-1518

Janice raises the question of the use of surgical methods to increase the vertical dimension and offers the use of osteotomy procedures as an example. Dr Boitumelo continues to take over the discussion and gives an explanation of the proposed management strategy, reiterating the timing and length of time the treatment will take. She asks if there are other options proposed by the students and specifically directs the question to Stavros, who replies that 'what you've given, is'.

Stacy then brings up the point of offering Mark's mother advice and offers some suggestion as to what advice to give her. During this Dr Boitumelo emphasises the importance of a diagnostic set up as an aid to the planning of the treatment. Nandi then points out that one of the staff members (Prof Green) routinely tells patients that she can make them look like Julia Roberts, at which point Dr Boitumelo brings their attention to the post operative clinical pictures and offers how orthognathic surgery can improve the appearance, she talks about the involved time – frames, risks, benefits etc and directs the students to all these points and gives the necessarily reasons for some of the points.

#### 1518-1529

Dr Boitumelo then gives the floor back to the group chair – Stavros – and asks them to discuss the alternative treatment plans: Rural vs Community Dentist scenario. Stavros leads the discussion pertaining to oral health and its maintenance. She alerts them to the challenges inherent with performing a full clearance as one student suggests taking all the teeth out and provide a denture. Janice suggests that they may be able to fabricate an orthodontic appliance that is aesthetic whilst relying on the growth spurt. The facilitator then offers further input

regarding what Janice has just suggested. Dimakatso the suggests the need to consider the financial implications and the influence of the setting on the suggested treatment options, at which point the group goes into discussing the case where the family has moderate income.

Dr Boitumelo asks them for the proposed treatment option under such financial consideration. Nandi offers the need for genetic counselling wrt the other siblings / generations who may have similar affliction. Stacy suggests that the treatment offered should be the same with such financial considerations until the need for implant restorations. The facilitator then offers further explanation regarding overdentures and the potential challenges wrt to the setting (rural) – need for frequent review appointments, need increased skill sets both technical and clinical etc. The group then come up with other issues such as – transport, commitment, communication etc. The discussion that ensues within the group needs little intervention from the facilitator at this point. They then discuss the alternative option to an overdenture in a rural setting and emphasise on the need for restoring function.

At this time, there seems to be reduced energy levels amongst the students and the discussion is not as lively as earlier. This prompts the facilitator to ask them what is going on and Kajil retorts that 'it is intense' to which Dr Boitumelo tells them 'this is a walk in the park'.

#### 1530-1536

Following a lull in the discussion and noting that there isn't much discussion to follow from the students, Dr Boitumelo gives the group feedback on their participation for the session. She tells them that they failed to bring out the vital aspects of the case clearly, and failed to put these issues in a coherent manner. She gives them specific examples such as using orthodontics to facilitate treatment; going through a diagnostic phase etc. She points out that they did not point out what the inherent challenges with each option were and she gives specifics here as well – rural setting eg son / mother moving out etc; moderate income etc. She points out that they did not offer any treatment sequencing, reasons for the diagnostic tools at their disposal and the need for further diagnostics to be undertaken. At the end she asks them for any questions or comments, but none is forthcoming and the session ends at 1536.