# PowerPoint presentations in Medical Conferences in Iraq. (A Qualitative Study)

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# Abstract

Background: PowerPoint (PPT) presentations are the predominant kind of presentations used in medical lectures, seminars and conferences in recent years. Many physicians and scientists are unaware of the rules and guidelines in preparing and conducting PPT presentations including many aspects of it.

**Objectives:** To evaluate the state of PowerPoint presentations and related matters in Medical Conferences in Iraq.

Methods: This was a mixed qualitative study, using observational approach. A checklist prepared by the investigator, was used to predict certain aspects in presentations, presenters approach as well as conference organization. Eight conferences were included from 4 governorates in Iraq for the period from November 2009 to December 2011. A total of 102 Power-Point presentations were included in the study. Oral approval from the head of the conference or organizing committee of the conferences was taken prior to doing these observations.

**Results:** One out of the 8 conferences starts on time with an average 30 minutes delay. Thirty one (30%) of presenters are facing problems, 43 (42%) use very small size in some of their slides, 36 (35%) had mismatched colours. Fifty (49%) used more than 15 lines per slides and 12 (12%) used more than 20 lines per slide. Too many slides per presentation were noticed with 28 and 37 using extra slides and 19 using over animation in some slides. Laser pointers were used by 39 of the presenters, 13 (33%) of those used it in a non-proper way, while 15 had delays for 5 minutes and more. Side talks, mobile rings and mobile talk were present in more than 40% of presentations.

Conclusions and Recommendations: Many problems were noticed with presentations in medical conferences. Organisers need to consider time delay, duration given for presenters, logistics, conference hall preparation, selection and role of chair persons and to assure a quiet environment. Presenters should give consideration to their facing, voice, pointer use as well as their slide preparation as well as skills in giving an effective presentation.

Key words: PowerPoint, PowerPoint Presentation, Conference, Effective presentation, Information and Communication Technology, Irag

### Introduction

Educational technology and audiovisual aids had become an integral part of teaching, training and giving lectures or presentations all over the world (1-3). Technology and the term Information and Communication Technology (ICT) are widely used, and have become an essential element of teaching environment in universities and institutes (4-7).

PowerPoint (PPT) presentations are the predominant kind of presentations used in medical lectures, seminars and conferences in recent years as well as in other sciences. Teachers and scientists should know how to use ICT; even the general population should know the proper use of it in this era (1, 8-10). PPT can help in organizing thoughts, time management and getting attention and attraction of the audience. In addition, most audiences like PPT presentations as they can follow and remember the presentation (4, 7, 9, 11-13).

As any other technique or tool, PPT has some weak points or disadvantages. Edward Tufte and others have criticized PPT as being an evil and the worst invention, for being teacher centered, decreased thinking of the audience and other issues (14-18). Though these limitations could be related to the person constructing the PPT slides or the presenter themmself not the program (6, 17, 19-21). This argument might be usual event with any invention.

Unfortunately, many presenters use PPT improperly; thus it becomes distracting, dissociative and decreases the effectiveness of the presentation, instead of being additive and focused on the presentation content. This could be related to the fact that many physicians, teachers and researchers are unaware of the rules and guidelines of preparing and conducting PPT presentations and slides, while others have little experience with computers and programs or are not trained on how to make an effective presentation (7, 22, 23).

Frequently presenters rely on the PPT, reading slides from the laptops or screen, moving slides, and thus losing communication and eye to eye contact with the audience. Missing a basic rule of facing in the audience's direction, not the slides; he\she should be the focus of attention, not the screen. PPT should add to his\her talk, and deal with it as a supplement or an aid (20, 24-29).

An effective presentation should be interactive. Success and productivity of a presentation depends on presenters' ability, experience of how to communicate with the audience, gain their attention and use body languages efficiently, rather than type and quality of the visual aids used (22, 26, 30).

Presenters' voices should be clear and audible to all attendants while a soft monotonous voice will negatively affect the presentation. Presenters should speak at a suitable pace, not being fast and should finish on time. To achieve that, rehearsing and practicing will help, as well as other issues related to presentation and its effectiveness (8, 22, 26, 27, 30-33). Another helpful rule in time management is "the lesser number of slides in a presentation the better" and do not use over two slides per minute (34, 35). So for a 15 minutes presentation your slides should not to exceed 30 while 20-25 slides, or even less, will be most suitable.

Designing of PPT slides is a major factor related to the effectiveness of the presentation, and the basic rules in preparing slides are:

- Keep simple design first and use a clear font.
- Use same design, fonts and colours for all slides.
- Keep slides margins clear.
- Use small letters, it is easier to read and writing in capital letters should be restricted to titles or keywords.
- The lesser the words in a slide the better.
- Bigger size of font is better; size for titles should be bigger than text.
- Suitable size for text is 30-36, and do not use text size less than 24, even in small halls, and many writers recommend larger size. (11, 19, 20, 25, 33, 35-41).

A common pitfall in preparing slides is putting too many words in a slide. To overcome this issue the rule of six or (6\*6) should be followed. This means that each slide should not contain over six lines and each line should not contain over six words. Some researchers refer to the rule of seven, others recommend five lines, but the majority agree that it should not exceed eight lines per slide. Others advise a maximum of twenty words per slide (8, 12, 20, 31, 35-37, 42).

Colour use in designing slides is liked by presenter and audience, but too many colours are distracting. Not more than 4 colours per slide is advised. Select text colours to match with background colour, and contrast with it. So use dark colours on light background and light colours on dark backgrounds. Avoid combination of colours as it is difficult to read (35-37, 40).

I prefer a light background (light not shiny) and dark text as it less affected by lighting of the halls. Lighting of the hall is often needed and asked for by media and photographers covering conferences. Also keeping a little lighting is better for communication as the presenter can see the audience and it is advisable to decrease sleepiness and eye fatigue (41). Sleeping in conferences or lectures is not uncommon.

Special effects in PPT design such as animation and sound effects could add to presentation a touch of life or action. But overuse of them are distracting and annoying (4, 8, 9, 17, 33, 35, 36, 38, 40, 43, 44). The same is true with a laser pointer, which is frequently used by many presenters, if its use is non proper or unnecessary (22, 26).

Images are easier to understand and stay in the mind of audience, but too many or nonrelated images may distract the audience. However, avoid using images as a background. Also graphs and charts will be much easier to read than tables. Tables are more suitable for publication than presentation. Try to replace tables by graphs whenever possible in PPT, but graphs should be easy for visualization and understood. Use of videos or any multimedia in presentation can add and stay in the mind longer, as long as it is it's related to the topic, and time allocated is enough. (17, 19, 21, 25, 33, 40, 42, 45, 46).

After all remember that audiences are sitting in the hall to watch and listen to your talk, research notes, updates, thoughts and your experience in the medical or other field, not to your experience in PPT program techniques, animation, and use of colours, or to see unrelated pictures or shapes. And as you use technology and PPT you should know how to deal with it, or at least the ABC of that. Always be ready for alternative ways to give the presentation if technology fails you, or electricity goes off.

However, if circumstances forced you to give a presentation, or for any reason you want the audience not to understand your talk or open discussion, you can use the opposite of above mentioned PPT rules.

Many pitfalls and problems have been noted with preparing PPT slides, audiovisuals use, giving presentations, and in organization of the conferences in Iraq. Issues that presenters or organization committees miss or underestimate, may have negative effects on attendants, outcomes of presentations and the conference. So the objective of this study was to evaluate the state of PPT presentations and some related issues in medical conferences' organization in Iraq.

#### Methods

This was a mixed qualitative research study, using observational approach. The study included 8 medical conferences or symposia held in 4 different provinces in Iraq for the period from November 2009 to December 2011; the organizers of the conferences were different parties: Ministry of Health, Ministry of Higher Education and Scientific Research, Medical Societies and some were cooperations between them. Selection of the presentation was random, depending on sequences of the presentation in the conference and the availability of the investigator.

A special checklist was prepared by the investigator, in order to predict certain aspects in PPT presentation, the presenters' approach as well as conference organizations while attending conferences, such as: starting time of conference with schedule, starting of sessions, time allocated for presentation, the introduction of the presenters by chairs of session (whether adequate or non-adequate or not observed).

Issues related to the presenter included the following: facing (good, accepted, non- accepted); voice (good, accepted, non-accepted); font type (clear, accepted, nonclear); Font size ( large = read easily, small = difficult to read, very small = very difficult or could not be read); colours used (good = matched, accepted, non- accepted = mismatched); too many colours (more than 5/slides); number of lines per slide (?10, 11-15, 16-19, ? 20); use of pictures; tables and graphs (not used, good, accepted, non-accepted= very difficult or could not be recognized, not observed); use of laser pointer in presentation, any method of usage of it (good, accepted, misuse or overuse "when its use is distracting or over-moved in annoying way".

Also number of slides per presentation (good, accepted, too many); extra-slides presence "slides that were not presented or discussed and just passed on by presenters"; Animation (good or accepted, overuse, not observed); the pace or speed of presenter (good, accepted, fast); commitment with time (finish on time or before, delay 2-3 minutes, delay for 5 minutes or more); time notification (notified on time or not); response to notification (did not respond, responded positively, not good response).

Other issues checked include: presence of side talks, mobile ringing, mobile talk, quality and arrangement of audiovisuals, disruption or interruption of the presentations, and discussion time as well any specific related issues.

To conduct these observations an oral approval from the head of conference or head of organizing committee of the conferences was taken prior to doing these observations. Also names of conferences were kept hidden only for the researcher, and even names of presenters and their background not recorded. Observations were translated to frequencies and percentages and data expressed as tables or figures.

#### Results

A total of 102 PPT presentations were included in the study from 8 conferences conducted in four different Iraqi governorates. Only one conference (12.5%) started on time of schedule with average 30 minutes delay and one started after 2 hours, while nearly one third of presentations had some problems in audiovisuals or lighting of the conference hall.

Ninety seven (95.1%) presenters were introduced in a good to accepted way by the chairs of sessions. And 94 (92.2%) of them greeted or thanked the chair or audience before starting their presentation. However 6 (5.9%) had a weak or monotonous voice as shown in Table 1. Also facing and eye contact problems with attendants were noticed with 31 (30.4%) of the presenters (Figure 1).

There was little problem with type of font used, most of them were clear and readable, and only 1 (1%) used non-accepted font. While 92 (90.2%) used small size font and 43 (42.2%) used very small size in some of the slides they used.

Fifty (49.2%) used more than 15 lines per slide, while 12 (11.8%) used more than 20 lines per slide in some of their slides (Figure 2). Too many slides per presentation were noted with 28 (27.5%), and 37 (36.3%) used extra slides.

	Variable	Frequency 102	Percentage 100.0%
Introduction	Positive	97	95.1%
	Positive but non-adequate	5	4.9%
Greeting	Positive	94	92.2%
	Negative	8	7.8%
Voice	Good	78	76.5%
	Accepted	18	17.6%
	Non accepted	6	5.9%
Font type	Good	72	70.6
	Accepted	29	28.4
	Non accepted	1	1.0
Pointer use	Used	39	38.2
	Not used	63	61.8
Speed	Good	59	57.9%
	Accepted	34	33.3%
	Fast	9	8.8%
Duration	Finish within time	73	71.6%
	Extra 2-3	14	13.7%
	≥ 5 minutes	15	14.7%
Side talk	Negative	60	58.8%
	Little	38	37.3%
	Noise	4	3.9%

Table 1: Frequency and Percentage of certain attitudes observed

Regarding colours, 36 (35.3%) had mismatched colours in their slides while 10 (9.8%) used too many colours in some slides, and 30 (30%) used some graphs or tables that were difficult to be seen or understood (Figure 3)

Over animation was noted with 19 (18.6%) of presenters while laser pointers were used by 39 (38.2%) of presenters; of those 13 (33.3%) used it in a non-proper way or unnecessarily (Figure 4).

Nine (8.8%) of presenters were fast in their presentations and 73 (71.6%) finished on time while 15 (14.7%) delayed for 5 minutes and more. Forty (39.2%) presenters were notified on time, and 7 (6.9%) notified for more than one time after time was exceeded. However the response for notification was weak in 13 (32.5%) while 4 (10%) ignored time notification. Side talks, mobile rings and mobile talk was present during 42 (41.2%) presentations, and about 12 (11.8%) presentations were interrupted, and in most cases by power off or audiovisual problems.

## Figure 1: Condition of Presenters facing the audience



Figure 2: Number of lines/slide showed by presenters in some of their slides





Figure 3: Distribution of colours used in slides

0%

Too many

colours

Figure 4: Status of tables and graphs presented.\*(2 presentations didn't include tables)

Non

accepted

Accepted

Good



### Figure 5: Laser pointer usage status



#### Discussion

PowerPoint presentations use in teaching, learning and scientific conferences are increasing day after day. Microsoft in 2001 estimated there were over 30 million PPT presentation per day, so imagine the number nowadays (1, 28, 29). Consider Ian Parker's words "appearing in meeting nowadays without a PPT is just like wearing no shoes" (47).

So researchers, teachers, scientists should have competent skills on how to prepare a PPT, using technology fairly and giving an effective presentation. Each of these areas may lead to bad or non-effective presentations. Also they can be boring and have a negative impact on learning, content, attendance and retention of knowledge (14, 17, 21, 28, 42, 48-50).

Delay of conferences opening was quite common for different reasons. But a common reason was waiting for attendance of main guests such as ministers, university chancellor, etc., who usually had an opening speech. Also the delay was present in most lectures sessions openings. However, non-respect to time could be a social problem in Iraq. As most meetings and conferences were delayed in Iraq up to the highest political or governmental meetings or even writing the Iraqi Constitution.

Poor preparedness of the main hall, audiovisuals and computers were noted, and these issues had negative effects on presenters and materials. Also many times the PPT was on flash ram or CD and not on main computer, and had not been tested. Some organizers set low sited datashows that were affected by passing of guests or organizing staff in front of the screen.

Poor facing to audience was present in nearly one third of presenters. This may reflect that many presenters were not aware or had not considered this issue. Though sometimes it was the conference organizers' fault who did not put a laptop or screen in front of presenter. This mandated the presenter to read from the screen and put his/her back to the audience. Some presenters were smart enough to try to overcome this situation every now and then by talking to audience, while others kept talking without any consideration. Another problem noticed, was that the slides movement was not done by the presenters. So that handicapped the presenter and required them to tell a person in charge to move slides (next, next..). This was more problematic if the slides were not organized, if they wanted to go back to a certain slide and if there were extra slides. On the other hand some presenters had very little experience with computers or PPT programs and were be keen for someone to move their slides.

In one conference there was a laptop in front of presenters but the show was from another computer that was connected to a datashow. Though they offered some help, it was confusing for presenter as well as audience.

As in most conferences, the presenter should stand in an almost fixed, static area that gives no or very little space for movement. So organizers should arrange a laptop or screen in front of them, and he\she should be responsible for slides transition, and presenters should know how to do it. However, an important issue is that presenters should be aware and care about facing the audience as well as using effective body language. The use of remote devices in presenters' hands would be very helpful supposing that presenters are familiar with the use of them. This can give more freedom to move and use body language.

Minor problems appeared with introduction of presenters to audience, but occasionally it wasn't fair enough. Also the thanks and greetings from presenters to audience and chairmen was good. Voice problems were not that common and many times related to audio devices and microphones. But more voice problems were noticed in discussion sessions, where portable microphones were poorly functioning.

A majority use small size font, and 42% used very small size font that was difficult to be read. However this issue is directly related to number of lines used per slide, as 49% and 12% had used slides with 15-19 and more than 20 lines/ slide respectively. This reflects a major problem that is very awful to read, if one can read it in the first place. This was greatly associated with tables presented, as only 14% of tables were good. So presenters should reconsider the use of tables in their presentation or use suitable graphs instead if applicable.

Misuse of laser pointer was noticed with one third of its users. However if the slides were prepared according to PPT slides preparation rules, there would be less or even no need for the use of laser pointer. Instead one can use the cursors present on computer keyboards and as Jannette Collins explain in her useful article(26).

Big numbers of slides were noticed in 28% of presentations, and 38% included some extra slides or unnecessary slides, that not been shown or discussed. Some included tens of these slides. This reflects poor preparation, poor time management, no consideration for time allocation for each slide and even no review of PPT, or rehearsal.

Good colour match was the predominant feature, however non-accepted or poorly matched colours appeared in nearly one third of presentations. On other hand 10% of presenters used too many colours in one slide or more. This could be related to unawareness of colours matching issue, or they thought that shining and frequent colours added to PPT, while the reverse could happen. Similar explanations could account for use of over animation that was present in nearly one fifth of presentations.

We believe that 10 minute presentations, that were the most prevalent duration given, is not a fair time to give for a research presentation or an update. Duration of 15-20 minutes is more suitable, or should be the minimum time to be given. Moreover, when being beyond time for any reason, the chairperson tends to, or been asked to reduce time allocated on the schedule for even less than 10 minutes.

Short duration increased the act of giving fast presentation that is a non preferred event, even if it appeared only in 9% of presentations. Going fast was also affected by bulk of data presented, big number of slides, and running out of time. Short duration given could give a hint as to why some presenters exceeded time given for them. But definitely it was not the only excuse as 15% exceeded 5 minute delays, while others took more than double the time and ignored the recurrent notifications on time.

Side talks and mobile rings lead to distraction and non-calm or noisy environment and it was present in more than 40% of presentations. Mobile rings were heard not only from audience, but sometimes from the presenters themselves and even from the chair committee who sometimes had side talks. Furthermore some chairpersons, were not monitoring time, leaving presenters to exceed time allocated for them; that is a major responsibility for a chair person.

Interruption of presentation was another unpleasant event and unfortunately it was present in nearly 10% of presentations though electricity going off, which is a common event in Iraq was the main cause. Sometimes the cause was related to audio-visuals malfunction and weak preparedness of the organizing committee.

The fact that only one person evaluated the presentations, is one of the limitation of this study. But it could be a strength also, as multiple observers would have different standards and ranking. After all the study aims to highlight the issue, to try to raise standards of PPT presentation design, conference organization, and effective lecturing. Another limitation was the general difficulty of recording observations while attending an event, as we are humans and we cannot record all observations.

Presenters in these conferences were from all over Iraq, and many of them were not physicians. So what appeared in these medical conferences can be applied to scientific conferences in other fields, and actually same issues noticed in them out of this study.

In conclusion, there are many pitfalls with presentations in medical conferences in Iraq. Medical colleges, conferences' organizers and medical personnel need to give more efforts for PPT slides preparation based on specific rules. Also they need to consider time delay, duration given for presenters, logistics, conference hall preparation, selection and role of chair persons and to assure a quiet environment. Presenters should give consideration to their facing, voice, pointer use as well as their slide preparation as well as skills in giving an effective presentation. Further studies on this area and issues are recommended.

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