Design Tip #120 Design Review Dos and Don'ts

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Over the years, we've described common dimensional modeling mistakes, such as our October '03 " Fistful of Flaws" article in *Intelligent Enterprise* magazine. And we've recommended dimensional modeling best practices countless times; our May '09 "Kimball's Ten Rules of Dimensional Modeling" article has been widely read.

While we've identified frequently-observed errors and suggested patterns, we haven't provided much guidance about the process of conducting design reviews on existing dimensional models. Kimball Group consultants perform numerous design reviews like this for clients as it's a cost-effective way to leverage our experience; here are some practical dos and don'ts for conducting a design review yourself.

Before the design review…

- Do invite the right players. Obviously, the modeling team needs to participate, but you'll also want representatives from the BI development team (to ensure that proposed changes enhance usability) and ETL development team (to ensure that the changes can be populated). Perhaps most importantly, it's critical that folks who are really knowledgeable about the business and their needs are sitting at the table. While diverse perspectives should participate in a review, don't invite 25 people to the party.

- Do designate someone to facilitate the review. Group dynamics, politics, and the design challenges themselves will drive whether the facilitator should be a neutral resource or involved party. Regardless, their role is to keep the team on track to achieving a common goal. Effective facilitators need the right mix of intelligence, enthusiasm, confidence, empathy, flexibility, assertiveness, and the list goes on. Don't forget a sense of humor.

- Do agree upon the scope of the review (e.g., dimensional models focused on several tightly coupled business processes.) Ancillary topics will inevitably arise during the review, but agreeing in advance on the scope makes it easier to stay focused on the task at hand.

- Do block off time on everyone's calendar. We typically conduct dimensional model reviews as a focused 2-day effort. The entire review team needs to be present for the full two days. Don't allow players to float in and out to accommodate other commitments. Design reviews require undivided attention; it's disruptive when participants leave intermittently.

- Do reserve the right space. The same conference room should be blocked for the full two days. Optimally, the room has a large white board; it's especially helpful if the white board drawings can be saved or printed. If a white board is unavailable, have flip charts on hand. Don't forget markers and tape; drinks and food never hurt.

- Do assign homework. For example, ask everyone involved to make a list of their top five concerns, problem areas, or opportunities for improvement with the existing design. Encourage participants to use complete sentences when making their list so it's meaningful to others. These lists should be emailed to the facilitator in advance of the design review for consolidation. Soliciting advance input gets people engaged and helps avoid "group think" during the review.

During the design review…

- Do check attitudes at the door. While it's easier said than done, don't be defensive about prior design decisions. Do embark on the review thinking change is possible; don't go in resigned to believing nothing can be done to improve the situation.

- Unless needed to support the review process, laptops and smartphones should also be checked at the door (at least figuratively). Allowing participants to check email during the sessions is no different than having them leave to attend an alternative meeting.

- Do exhibit strong facilitation skills. Review ground rules. Ensure that everyone is participating and communicating openly. Do keep the group on track; ban side conversations and table discussions that are out of scope or spirally into the death zone. There are tomes written on facilitation best practices, so we won't go into detail here.

- Do ensure a common understanding of the current model before delving into potential improvements. Don't presume everyone around the table already has a comprehensive perspective. It may be worthwhile to dedicate the first hour to walking through the current design and reviewing objectives. Don't be afraid to restate the obvious.

- Do designate someone to act as scribe, taking copious notes about both the discussions and decisions being are made.

- Do start with the big picture. Just as when you're designing from a blank slate, begin with the bus matrix, then focus on a single high priority business process, starting with the granularity then moving out to the corresponding dimensions. Follow this same "peeling back the layers of the onion" method with your design review, starting with the fact table, then tackling dimension-related issues. Do undertake the meatiest issues first; don't defer the tough stuff to the afternoon of the second day.

- Do remind everyone that business acceptance is the ultimate measure of DW/BI success; the review should focus on improving the business users' experience.

- Do sketch out sample rows with data values during the review sessions to ensure everyone has a common understanding of the recommended changes.

- Do close the meeting with a recap; don't let participants leave the room without clear expectations about their assignments and due dates. Do establish a time for the next follow-up.

Following the design review…

- Do anticipate that some open issues will remain after the 2-day review. Commit to wrestling these issues to the ground, even though this can be challenging without an authoritative party involved. Don't fall victim to analysis paralysis.

- Don't let your hard work gather dust. Do evaluate the cost/benefit for the potential improvements; some changes will be more painless (or painful) than others. Then develop action plans for implementing the improvements.

- Do anticipate similar reviews in the future. Plan to reevaluate every 12 to 24 months. Do try to view inevitable changes to your design as signs of success, rather than failure.

Good luck with your review!