Peter Barron

ISLT 9475: Diffusion of Education Innovations

CBAM Project

For my chosen innovation, I wanted to look at those who have adopted tablets in their day-to-day lives over a varied number of professions. Mostly, I wanted to test the use or lack thereof for tablets, and why. I only bought a tablet myself this last summer for grad school work, and am curious to how satisfied each person is with their tablet.

Part I: Create and innovation configuration checklist

Part IA: A list and summarization of your information sources

The information sources I used to create the innovation configuration checklist included a medical researcher, a research administrator, a professor of nursing, and a public defender lawyer. All three of them use their tablet at least to a partial degree.

I developed my checklist after talking to a coworkers and friends who owned tablets as to what they looked for when they were shopping for various tablets, as well as my own personal considerations when I bought mine. My initial checklist covered brands considered which is a subjective quality, ease of use, battery life, portability (which includes ease of transport and storage), number of uses per week, and overall satisfaction to the point that they would consider recommendation to a peer or repurchasing. I showed my first draft to one of my interviewees, who recommended adding original financial cost of buying the tablet, separated durability and portability into two separate categories.

Part IB: Changes and Drafts

Changes highlighted in cyan; ultimately, the second checklist became my final checklist after checking with two of my information sources if they would personally add or subtract any other factors and they thought the list was complete.

INNOVATION CONFIGURATION CHECKLIST I			
Innovation: Tablet PC			
Brands Considered	(Subjective)	(Subjective)	(Subjective)
	Optimal	Acceptable	Unacceptable
Ease of Use	Device is intuitive, and self-explanatory, leading to very little or no difficulty.	Device requires some learning, but through experimentation, tutorials and outside help, becomes usable.	Device has severe difficulty issues, is unintuitive and ranges from difficult to unusable.
Battery Life	Battery is plentiful, lasts more than expected and provides more than enough charge to get through common use.	Battery has good general use, but doesn't last as long as projected by the original manufacturer design.	Battery life is short, burns quickly and requires frequent recharges.
Portability (Ease of Transport and storage, device durability)	Device is easy to store, transport and requires little external protection in the way of cases.	Device is slightly cumbersome, but not to the point of nonuse; may need external protection for extra security.	Device is not easy to store, transport, and/or requires significant external protection
Number of Uses/Week	4-5 uses a week	2-3 uses a week	0-1 uses a week.
Satisfaction	High levels of satisfaction would recommend to a peer or repurchase.	Medium levels of satisfaction; may not outright recommend to a peer without reservation, may consider alternatives on repurchase.	Low or no levels of satisfaction; would not recommend or consider repurchase

INNOVATION CONFIGURATION CHECKLIST II			
Innovation: Tablet PC			
Brands Considered	(Subjective)	(Subjective)	(Subjective)

	Optimal	Acceptable	Unacceptable
Ease of Use	Device is intuitive, and self-explanatory, leading to very little or no difficulty.	Device requires some learning, but through experimentation, tutorials and outside help, becomes usable.	Device has severe difficulty issues, is unintuitive and ranges from difficult to unusable.
Battery Life	Battery is plentiful, lasts more than expected and provides more than enough charge to get through common use.	Battery has good general use, but doesn't last as long as projected by the original manufacturer design.	Battery life is short, burns quickly and requires frequent recharges.
Portability (Ease of Transport and storage)	Device is easy to store and transport.	Device is slightly cumbersome, but not to the point of nonuse.	Device is not easy to store, transport.
Durability	Device is naturally durable and resistant against to shock and damage on its own, requires little extra external protection	Device is slightly vulnerable on its own, care must be taken and/or external protection is necessary.	Device is extremely vulnerable to damage; extra care is required and external protection is practically mandatory.
Original Financial Cost	Device fits well into a budget, and is not prohibitively expensive; or device's quality justifies larger cost	Device is slightly more than expected, but still within reasonable budget; or device's quality justifies larger cost.	Device is prohibitively expensive, or issues after purchase may not justify cost.
Number of Uses/Week	4-5 uses a week	2-3 uses a week	0-1 uses a week.
Satisfaction	High levels of satisfaction would recommend to a peer or repurchase.	Medium levels of satisfaction; may not outright recommend to a peer without reservation, may consider alternatives on repurchase.	Low or no levels of satisfaction; would not recommend or consider repurchase

Part 1C: Final Checklist

INNOVATION CONFIGURATION CHECKLIST II			
Innovation: Tablet PC			
Brands Considered	(Subjective)	(Subjective)	(Subjective)
	Optimal	**Acceptable**	**Unacceptable**
Ease of Use	Device is intuitive, and self-explanatory,	Device requires some learning, but through	Device has severe difficulty issues, is

	leading to very little or no difficulty.	experimentation, tutorials and outside help, becomes usable.	unintuitive and ranges from difficult to unusable.
Battery Life	Battery is plentiful, lasts more than expected and provides more than enough charge to get through common use.	Battery has good general use, but doesn't last as long as projected by the original manufacturer design.	Battery life is short, burns quickly and requires frequent recharges.
Portability (Ease of Transport and storage)	Device is easy to store and transport.	Device is slightly cumbersome, but not to the point of nonuse.	Device is not easy to store, transport.
Durability	Device is naturally durable and resistant against to shock and damage on its own, requires little extra external protection	Device is slightly vulnerable on its own, care must be taken and/or external protection is necessary.	Device is extremely vulnerable to damage; extra care is required and external protection is practically mandatory.
Original Financial Cost	Device fits well into a budget, and is not prohibitively expensive; or device's quality justifies larger cost	Device is slightly more than expected, but still within reasonable budget; or device's quality justifies larger cost.	Device is prohibitively expensive, or issues after purchase may not justify cost.
Number of Uses/Week	4-5 uses a week	2-3 uses a week	0-1 uses a week.
Satisfaction	High levels of satisfaction would recommend to a peer or repurchase.	Medium levels of satisfaction; may not outright recommend to a peer without reservation, may consider alternatives on repurchase.	Low or no levels of satisfaction; would not recommend or consider repurchase

Part 2: Data Collection using the Innovation Configuration Checklist

The Innovation Configuration Checklist for Tablet PCs was used with four participants - a medical researcher "D", a research administrator "G", a professor of nursing "M", and a public defender lawyer "N." All of them use various brands of tablets- N and G both use the Kindle Fire, where M has used an iPad and currently an iPad mini, and D uses a Samsung Galaxy

ProTab. All of them paid various prices for said tablets, and all of them uses them for more recreational use than professional. All of them were asked in face-to-face interviews with the configuration checklist, and I observed M using her tablet.

I wasn't sure what to expect with a wide spread of users, to be perfectly honest; I thought that my ratings would be spread out relatively evenly between the seven criteria and three possible ratings of each, what I didn't anticipate was that all when considering the average rating for all four, only G had the sole overall Acceptable Rating and the other three averaged out to be Optimal. Only one factor was rated Unacceptable by any of the group and that was Uses per Week- both G and N reported that they use their tablet around once per week.

This may have to do with primary uses of the tablet for each; M reported that her tablet is mostly for checking email while travelling, reading books, medical reference and recreational games. D reported her tablet is used for video, audio, games, and reading as well as a few other functions. N and G both only use their tablet only for the reading function, despite the possibility of using it for much more.

All of the other ratings varied between Acceptable and Optimal for the other aspects I asked for it. Overall satisfaction and portability were rated as Optimal by all four, but all other traits had two votes each for optimal and acceptable, resulting in an overall tie. Given this is general personal opinion, over three separate brands and operating system of tablets, this is more subjective, but despite the level of use or lack thereof of said tablets. Still, all four do use the innovation of tablet PCs, if not to their full extent.

From what I know of both M and D, their daily technology use is quite proficient, not only operating just a tablet, but often more than one computer between work and home and

certainly a Smart Phone as well. This is compared to N, who, while no stranger to technology, tends to use a primary computer for all of his major uses and a smart phone as secondary use. G, who can be charitably called "old-fashioned" when it comes to his use of technology; he employs it for work, record keeping of personal finances and perhaps a video or two online. He readily admits to preferring a hard tactile book in hand, over a tablet.

One of my ratings ended up more skewed than I anticipated; before asking them to participate, I did not know the source for any of the four's tablet, so one of my original criteria was original financial cost. However, both N and G paid nothing for their tablets- N used rewards points from his bank to receive his for free, and G won his as door prize at a Trivia Night; so theirs choice was marked as Optimal for obvious reasons, since budget wasn't a concern in this case.

For D and M, in contrast, Original Financial Cost was a major concern. D rated hers as Optimal, saying she budgets well for it, but M bought one of the original iPads, paying close to $600 plus for not just the tablet, but accessories and protective case.

Despite this odd arrangement of either purchasing or receiving, all four only considered the one brand of tablet in their individual cases which I found surprising. While N and G had theirs provided and didn't have a choice in tablet, M and D did and deliberately only chose to look at and consider one brand for purchase. Both cited their respective experience with the Apple iOS and Samsung Android platforms as one of the major factors in deciding what to buy as they were both pleased with the operating systems and their functionality.

All things considered, the ratings are not entirely unexpected given the relative experience with technology each of the four have, and would be productive to check if any of

them had their tablets provided for work reasons instead of purchased/receiving theirs independently if there would be greater familiarity and more or less optimal ratings.

Part 3: Stages of Concern Interview

After reading the article mentioned earlier, one of the big things I wanted to know when I was constructing my checklist was would someone want to continue using the tablet if the experience was optimal or acceptable, or discontinue if the experience was unacceptable and what their reasons were for this. While I did not know the overall usage rates of each person before beginning Part 1 and my checklist, I did know both M and D were copious users of their tablets based on previous general conversations before this course began. Ultimately, given N and G's relative low use of technology in their daily lives as stated earlier, I stuck with M and D for this purpose.

For the most part, the two had common groups of concerns with management and consequence, and M had specific concerns in collaboration and refocusing.

D far outstrips all the others in the number of uses of her tablet; and admits to using it for a number of various applications and uses for her tablet. She enjoys exploring the various possibilities of the tablet, by her own admission, and her concerns is having enough time to explore the applications available, and having enough time to do so. Given her use is pegged at 15-20 times a week, this is understandable. M's management concern is similar, but for different reasons. She needs to streamline her time on the device, and given the extra amounts of technology, has to prioritize what use of the tablet she will use.

Both M and D have concerns under consequence, but for different reasons. D's consequence is mostly related to keeping the battery charged. While she acknowledges that the

battery life is Optimal under the original criteria, her heavy use does necessitate frequent recharging. M's consequence is mostly finding a use for it that can't be used by the copious amounts of technology. However, she also has one concern that falls under consequence, collaboration and refocusing.

M's specialty in nursing is Obstetrics and Gynecology; and to that end she research applications for iOS that matter in that field. This involves using apps that focus on women's tracking of their month cycles, as well as pregnancy tracking. She uses her expertise to see how accurate the apps are in her research (Consequence), collaborates with her assistants, research subjects (Collaboration.) She also has to explore if said apps are beneficial for her subjects and proposes alternatives if they are not. (Refocusing).

Part 4: Determine the Level of Use of the Innovation

I mentioned earlier that G could be regarded charitably as "old-fashioned" when it comes to technology. While not a full blown "technophobe" to use the pejorative term, G generally prefers to do things with tried and true methods over rushing out to buy the latest in technology. I conducted an informal interview with G to assess where he would fall on the "Levels of Use" under the CBAM model.

Generally speaking, G would have likely stayed content to remain at Level 0 or "Non-use" had he not won his Kindle Fire tablet as a door prize at a Trivia Night. By his own admission, he only seeks out as much technology as he needs to. This again, is not based on fear as someone might label the term "technophobe" with, but a sincere belief that technology only needs to be present based on a need, not necessarily a want. He uses readily available modern resources to do his job in research administration and volunteer work (i.e. internet, email, etc.),

but keeps a separation between his work and home life. He readily bought a Barnes and Noble Nook e-reader for his wife, but showed no interest himself, even after his own observations of her love and enthusiastic adoption of said Nook.

That said, it's interesting to note that instead of just giving his new Kindle Fire to a family member, he elected to keep it himself. When I asked him about this, he indicated that while one of his adult children probably would have appreciated the gift, ultimately, it was his Kindle Fire, no matter how much or how little he chose to use it.

As mentioned previously, he chooses to barely employ the Kindle Fire, using it perhaps one time a week for reading books with it. The Kindle Fire is also capable of accessing video services like Netflix or YouTube, audio services with Amazon's own music service or Pandora, social networking, and a number of other custom applications. G only uses it for what the Kindle, and even the original purpose of Amazon, was original designed for – to deliver books for reading.

Ultimately, while not being outright opposed to owning a tablet like the Kindle Fire, I wouldn't argue G has a high level of use of the innovation. He's reached and surpassed Decision Points A and B, certainly, as he knows how to use the basics of a Kindle Fire, even if he didn't show personal interest in a Kindle Fire before it was effectively thrust on him. Where he is now is another matter.

It's hard to place this, honestly, he does and doesn't fit both Decision Point C and D1. Decision Point C-Mechanical use definitely applies to his one use a week; he only uses it for short term use, reading in bed, or more uncommonly, during travel. However, even based on the Point C's definition, he isn't outright to master the innovation or attempt to learn more about it –

it serves its limited purpose and that's about it. This leads me to put some of his use in Decision Point D-1, which does define that "few changes are being made in ongoing use, and little preparation or thought is being given to improve innovation use," and this is because he doesn't really change his use of the Kindle Fire. G simply uses it just as a book reader, because that's all he needs it to be.