# **TEACH 04 : CRITERIA IDENTIFICATION**

##### **Due Wednesday at Midnight MST**

# **Problem 1: CB Radio(Rochak)**

# Identify evaluation criteria for the CB radio, using the following brief persona and scenario:

**Persona**: Mac the truck driver is a huge fan of high-tech, enabling him to keep in touch with his family, friends on the road, and co-workers. He is proud of his truck and careful about its equipment.  
**Scenario**: Mac is approaching a mountain pass at night and is worried about an approaching storm. Without taking his eyes off the road, he scans for any truckers in the area. He quickly finds one and gets a status update of the pass. Afterwards, they spend an hour chatting till he falls out of range…

**Efficiency:** User must be able to communicate faster that means the waiting time in radio should be lesser than competitors to be successful. There should be no lagging or broken voice in radio. User should be able to locate someone pretty quickly; the turning fork or manual turner should be discouraged because truckers wouldn’t want to keep their eyes out of road.   
**Learnability:** The new truckers need to know about the function of every button in Radio. So, Radio must have all the controls labeled. Most important, new user doesn’t want to know more about the complexity of a device. So, the main function like frequency tuner and power button should be easily recognizable.   
**Familiarity:** It should look like a regular CB Radio. Manufacturer trying to make it funny and cute will have a high chance of failing.   
**Simplicity:** Radio must be simple. Each button should perform only one operation or in other words, there should not be a switch which you push from one end to other and it will do different function in different place.  
 **Mapping:** Important controls must be labeled with bright or bold text so user knows what is important for basic function. The CB radio must not be colorful so user will confuse between power and other switches.  
 **Motivation:** There should be some functions for pro user. There should be some more radio function so the user can use the device as a source of entertainment too.   
**Trust:** User doesn’t want any human error to make a big change in a system. There should be some way to go back to initial stage if user does something wrong. System should be simple or more of the complex thing should be hidden for expert user.  
**Visibility:** The user manual for new user should be clear and simple. Same with the controls and labels, they should be clear and easily readable. Size of the switches are important factor in pointing the functions.

**Priority 1(25%):** Efficiency is more important for a user who is behind the wheels. No one wants to get distracted with slow voice and searching for stitches.  
 **Priority 2(20%):** Familiarity: I would put familiarity after efficiency and higher than other because if the user feels like the design in complex there is a less chance he will buy it.   
**Priority 3 (15%):** Motivation: There should be constant motivation for user to learn more complex function of the radio so the design can be successful. Because nobody wants the old type of radio, but at the same time they don’t want the complexity that comes with it. So, designers should be able to create constant motivation so the learnability path can be linearly increasing or increasing in a constant manner.  
 **Priority 4(15%):** Learnability: For a design to be successful, the device must have more function and well it should have constant motivation and good learnability curve. So, my motivation and learnability are prioritized same.  
 **Priority 5 (15%):** Trust: User doesn’t want the device to be broken in the emergency. Also he doesn’t want his radio to malfunction while trying to look for different function he has in the Radio.  
 **Priority 6(5%):** Simplicity: It should be simple so one can use radio without any long training.  
 **Priority 7 (5%):** Visibility: It is always better to have a clear vision of your controls and labels.

# **Problem 2: Cordless drill**

# **Persona: Carpenter -** the Carpenter is always need a tool that can be used for many jobs and makes it easy for the Carpenter to carry the tool around to different work sites. This way the Carpenter is able to work quickly without issues the a cable. Mike like that it is light to carry around. **Scenario:** The carpenter has to been onsite all day at an apartment that is get built in downtown. He Grabs his bag of tools that he is going to need to have to the day. And grabs his cordless drill. Then he start installing all of the cabinet that he had onsite that day. After installing the 3 cabinet set he see that the drills battery is going out. He goes to his bag and

# **Variables criteria:**

**Efficiency:** Carpenter was able to complete more work from the plug in drill from before. **Learnability:** It was easy to use do to the similarity of the plug in drill. **Familiarity:** It has a similar look and feel to it as the plug in drill **Simplicity:** The design on the drill in very simple, pull the trigger. **Mapping:** the control are place obviously to where they should be. **Motivation:** the look a feel to the design in pleasing to the eye. **Trust:** because it has a familiar look and feel, gives in a trusting feel. **Visibility:** everything is visible on the design of the drill.

**Priority 1:** The drill fits comfortably in the hand.(Motivation) **Priority 1:** The drill has the same controls as a plug in drill. (Familiarity) (Learnability) (Mapping) (Simplicity) **Priority 1:** The battery need to hold a charge for 3 hours of dill time (Trust)(Efficiency) **Priority 2:** The drill needs to be light to be operate.(Efficiency) **Priority 2:** The drill is able to be built from good material to will not break easy. (Trust) (Motivation) **Priority 3:** The drill should be the same as the other drills that the carpenter uses. (Learnability) (Familiarity)

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|  | Exceptional 2 | Good 1 | Acceptable 0 | Flawed -1 | Horrible -2 |
| Efficiency 30% | The carpenter is able to uses the drill for long jobs with easy. | The carpenter is able to use a drill but it was little too heavy. | The carpenter is taking him some more time to finish the job do to the drill | There is no way for the carpenter to use this drill with one hand | The battery dies super quick and the drill can not be used with one hand. |
| Motivation 20% | The carpenter feels good when he is able work with this drill. | The carpenter thinks that is helps him complete jobs quicker somethings | Does not feel good or bad when using the drill | This drill feels cheap and like is going to break in the carpenters hand | The carpenters breaks the drill the first time that he uses it. |
| Simplicity  20% | Everything is so simple to understand and work with. | Things are pretty easy to work with | Has never needed all of the designed buttons on this drill | Nothing is simple about the design. | The feature are never know how to use this tool |
| Learnability 15% | I feels just like a drill should and all the buttons are easy to understand. | It has something that where easy to understand how to use it. | Things are nothing like the drills he has used before. | There is nothing the looks like other drills | There is nothing the looks like other drills and buttons missing to operate the drill |
| Mapping 15% | The buttons on the drill make sense and help the carpenter operate the drill with ease | Mostly all of the buttons were able for the carpenter to use without a problem | The drill has buttons but no way to figure out what they do. | The drill is having a little misleading on some of the buttons | The buttons are misleading on they are to do. |

# **Problem 3: Topical Guide Feature**

**Persona:** When it comes to “Topical Guide” I think of the church and how the gospel library has a Topical guide. Members and leaders of the church use this tool for many different reasons.  
**Scenario:** So, members of the church that are actively using the mobile app to find some type of doctrine or principle relating to the gospel. And the topical guide leads them to answers they're having about the gospel related topics.

**Variables criteria:**

**Efficiency:** The user is able to to perform the tasks that the user planned to accomplish.The user was able to work at a consistent rate to finish the task he was planning on to achieve.  
 **Learnability:** The User is able to pick up on the learning curve of the software making it easy for him to complete the tasks. **Familiarity:** Like other apps, they all have the same idea on how they should run. For a topical guide, it should be clear and easy to function the information in the topical guide. **Simplicity:** This program should not be complicated. It should have simple tools that provide the information needed. **Mapping:** The program should be set up simply, clearly and functional. The user should be able to use the topical guide without wondering where certain functions exist within the application. **Motivation:** The purpose of the topical guide is to provide information. The user needs to have confidence and purpose when using the application which come from many of the other variable criterias. **Trust:** We want the user to be confident in the applications allowing him to gain the most of his user experience. **Visibility:** The functions of the topical guide should be clear and functional, making it simple and user friendly.

**Priority:** The application should be bug free of any problems that would cause the application not to work. **Priority:** The program must be able to perform certain search functions that allows the user to to search and find information **Priority:** The program must be simple to learn which provides a much richer user experience. **Priority:** The information found within the topical guide should be accurate and should be the correct location of the topical guide. **Priority:** Simplicity with the user interface. It's also important the application can perform complicated things with simple commands. **Priority:** Want the user to have a positive

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|  | Exceptional 2 | Good 1 | Acceptable 0 | Flawed -1 | Horrible -2 |
| Efficiency | The program performs excellently with no problems. | Positive experience with getting work done. | Average work is accomplished when using the topical Guide. | Errors with topical guide. Errors with software. | The topical guide does not perform the functions needed |
| Learnability | The user is able to learn the key features to efficiently use the topical guide | The user is able to learn most of the feature of the application | The user was able to accomplish tasks but had minor issues with software. | THe user struggled when it comes to learning the functions of the topical guide | The learn curve is not easy for the user to gain experience with the application |
| Familiarity | THe user feels comfortable with the controls of the topical guide | THe user felt average with the application features. | The user was able to get familiar with a lot of the functions but required more time | The user felt the application was rather inconvenient and not user friendly | The user was not comfortable with using the application |
| Simplicity | The user find the application simple to navigate. | The application provided somewhat simple simple | The program was average with setup of features and tools | The user felt the application made the made the topical guide complicated | The user found the software complicated to navigate |
| Mapping | The program provides the needed functions and responsibilities. | The program provides basic mapping functions for the applications. | THe program provides average functions with complicated setup | The user felt that the setup of application was not consistent with the purpose of the topical guide. | Application is not format according the needs of the topical guide |

# **Problem 4: Stopwatch Application**

**Persona:** Pedro is a mexican bus driver. He has 2 years of experience driving a passengers bus at Durango, Mexico. He knows how to use a smartphones, opening apps and using them while driving is not a problem for him.  
**Scenario:** There’s a lot pressure because the driver has to travel all his route in less than 2 hours, if something goes wrong he could be penalized by the company. He has to drive a big passengers bus through the city while collecting money of the passengers, and he also is checking his time at the stopwatch app on his smartphone.

**Variables criteria:**

**Efficiency:** It is easy to open the app and check the time while driving. **Learnability:** It is easy to learn how the app works and use it. **Familiarity:** Despite that it may doesn’t look like a real stopwatch, the numbers and the way it works may be familiar to the user. **Simplicity:** Pedro has enough knowledge to master the app. **Mapping:** The app will show something similar to a real stopwatch, with numbers, minutes, seconds, which will make Pedro a mental map of something that he already knows. **Motivation:** Pedro needs to use the stopwatch and he likes it that’s why he downloaded the app. **Trust:** Pedro is so confident when using the app because he is been using it for a while. **Visibility:** The app is light that’s why it is always available when Pedro needs it.

**Priority 1:** The app content should always be available for the user, if the user opens it and nothing is shown, then he will not use it anymore. It mustn't have bugs that will make the app to show nothing/don’t open (visibility). **Priority 3:** It should have a picture or shape of a stopwatch this will make the user to feel like using a real stopwatch (Familiarity). This is unnecessary but is acceptable. **Priority 1:** It should show the time at every moment, at the end of the day that’s the purpose of it, if it shows an ad each 5 seconds Pedro will not use it anymore, he needs to know the time (Efficiency). **Priority 2:** It needs to be an easy to learn app. The app will continue working even if the user doesn’t understand it the first time, it would be nice to understand it the first time you open it, but if not it will continue the regular functions of a stopwatch (Learnability).  **Priority 1:** The app will only be useful if it shows something about numbers like 00:00:00 or “start”, “stop”, if it doesn’t give a clue to the user then he will never figure out how to use it. You will not know that it is a stopwatch app if it shows a spaceship at the middle of the screen, the user hardly will make a mental map of about a stopwatch with that on the screen. (Mapping). **Priority 3:** The app may also play music while the time moves, it would be nice but it isn’t necessary at all to make the app work. It is stopwatch app not a Music app, but it would be good to play music while using it around the city driving the bus (Motivation).  
**Priority 1:** It should be a simple app, if the user doesn’t feel good and comfortable the first using the app then he will not use it anymore, an intimidating app will not work (Trust).

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|  | Exceptional 2 | Good 1 | Acceptable 0 | Flawed -1 | Horrible -2 |
| Efficient 20% | It opens and performs its functions efficiently | It opens and performs its functions with few ads in the screen. | It opens and performs its functions with few bugs. | It takes time to open and doesn’t perform functions efficiently | It takes so much time to start and takes time to perform its functions. |
| Availability 20% | Always works as it should do. | It works most of the time. | Sometimes it works sometimes it doesn’t | It works occasionally | It stops working just after opening it |
| Learnable 20% | It is easy to learn how to use it | Somehow easy to learn how to use it | Not easy not hard to learn how to use it | Somehow hard to learn how to use it | It is hard to learn how to use it |
| Familiarity 20% | It’s similar to others stopwatch apps | There are common patterns, elements with other apps | It’s a modern and unusual design, it may content similar elements | Previous knowledge will not be useful | Something totally new for the user |
| Understandable 20% | Interface and functions are understood after open and use it for less than 5 minutes | All is understood except for one function. | Most of the functions are easy to understand. | Half of the functions are complex to understand. | You need to use it several times and maybe you will understand how it works |