Submitted by Group 51

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DIS1 WS 19/20 Assignment 4
Types of Knowledge and Mistakes

Task 1

Knowledge in the World and Knowledge in the Head

Instances of Knowledge in the World from the Video:

1. 0:31 : Labels for columns and rows that helps to distinguish between each other. (A, B, 1, 2, 3, 4, 5).

2. 0:20 : After selecting function on the right top corner - in the left bottom corner is explanation what this function does. So user doesn't even have to remember exactly what median, average or sum are.

3. 0:33 : If the user types something incorrectly (e.g. wrong notation) the information about error is shown in the footer (The formula contains a syntax error).

Instances of Knowledge in the Head from the Video:

1. 0:03 : User has to know that if he/she wants to start a calculation of something he/she needs to put "=" sign in the beginning.

2. 0:34 : User needs to be aware of how to describe the range of cells that he/she wants to calculate. Although there is an explanation that he/she needs to use a semicolon, there is nothing about the fastest way that he used here (B2:B8).

3. 0:06 : User has to know that program doesn`t support mean function.
Moreover, he/she needs to know about replacement for mean function which is average function.
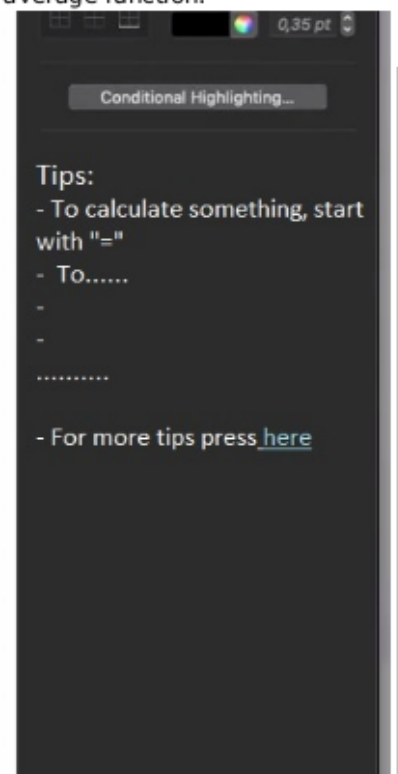
Redesign:

Results: DIS exam (out of 60 pts.)

Student Name	Points
Adrian	23,9
Krishna	45,8
Nur	43,0
Anke	40,0
Marcel	12,0
Jan	50,0
Sebastian	45,0
Total	

Conditional Highlighting...

Tips:
- To calculate something, start with "="
- To......
-
-
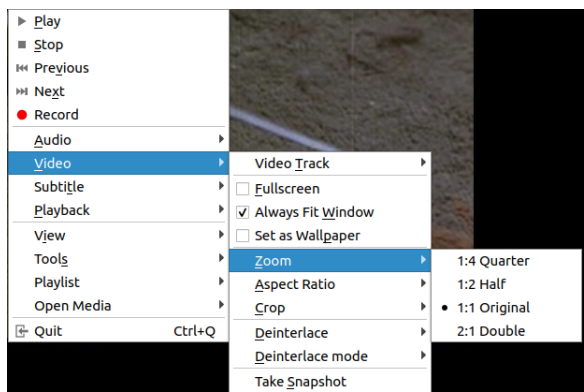..........

- For more tips press here

Explanation:

We've added a section "tips" to the black section on the right of the screen.
The section would show up after clicking a cell. This would lessen user's memory load because he would no longer need to remember how start certain functions.
For example, in this video the user wouldn't have to remember that if he wants to calculate something he needs to start with "=" sign.
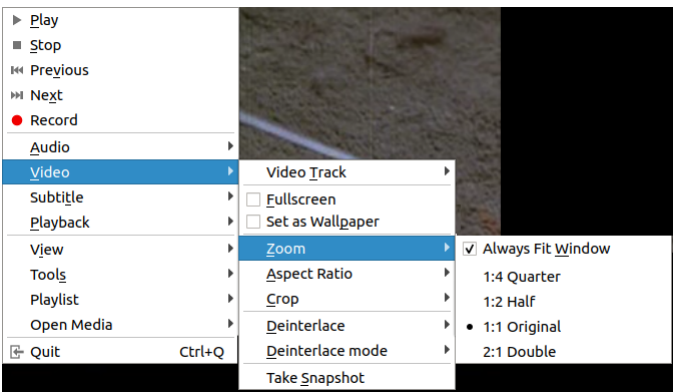
Task 2

Mistakes
Task:
User is requested to change the zoom of the video a zoom value other than the currently set one using the right-click menu of the VLC.
Mistake:
This is a '**Rule-based mistake**', that is, the user evaluates the situation correctly but takes the wrong course of actions.
Cause:
Evaluation: the user oversees the "Always Fit Window" checkbox, and without modifying it, goes ahead to directly change the zoom ratio.
Redesign:
refer to the picture 0.1b below of this page for the redesign image
Explanation: a) How the redesign minimizes the implications of the mistake: all the zoom-related buttons and checkboxes are under the same menu   b) How the redesign minimizes the chances of the mistake occurring in the future: the user, before clicking on a zoom ratio, would notice the "Always Fit Window" checkbox in the very same submenu, and would think that it is related to zooms, as it should be. Even though the user might fall for this the first time, just like we displayed in our user test, in the subsequent trials, the user can notice this checkbox being in the same submenu, and may decide to play with it too.

(a) Original   (b) Redesign

Figure 0.1: Video Lan Client (VLC) Right-Click Menu