Usability Product Review
Sony Cyber-shot DSC-W120 Camera
by Pat Barry

This review of the Sony Cyber-shot DSC-W120 evaluates the camera from the standpoint of its usability, as defined in the ISO 9241-11 (1998) standard, as "the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use."

The dimensions of usability selected for this review are those of Donald Norman (2002) and Jakob Nielsen (1993), wherein a well-designed product is:
- easy to learn and remember how to use.
- easy to determine what actions are possible and see the results of actions taken.
- easy to accomplish the intended task.
- easy to avoid and recover from errors.
- subjectively satisfying to use.

Throughout the paper, I've used (+), (–), and (~) respectively, to reflect positive, negative, and neutral aspects of the camera's usability.

The Camera

Virtually all possible user actions for this camera are initiated from the back of it and the results and status are immediately visible on the LCD screen (+).

The following discussion reviews the possible actions available via the dials and buttons on the camera, where a lot of functionality is built into a very small space.

The Back
The functionality of the top and bottom halves of the back are addressed separately.

The top half: The zoom in & out button is very easy to learn and use with the universal zoom symbols indicated (+).

The wheel offers 10 preset modes for varying distances and lighting (+). Some modes are labeled well (+), some aren't (–). But descriptions appear on the LCD screen for each option (~). I have been able to take pictures right away using them, without reading the manual (+).

The meaning of the checkered box is unknown (–).

The bottom half: There is a circular disc with four buttons around it and one in the middle. While it's not immediately clear what the difference between "Menu" and "Home" is (-), after one try, with the on-screen messages, it's easy to remember that "Menu" is for adjusting picture settings and "Home" brings up options relating to the camera itself. (~)

The button on the lower left has the universal play label that mirrors knowledge users are familiar with and makes it quick and easy to review pictures once taken (+) .

The button on the lower right starts a slide show with music that is more effective when using a TV rather than the camera to view photos you've taken (- Label) (+ TV display).

As for the disc itself, it was very intuitive to use the disk to navigate up, down, left, and right in the context of the two menus, "Home" and "Menu" (+). The arrow labels make the functionality visible (+) and the cursor moves exactly as the button does (+). The button in the middle of the disk is for selecting options from a menu and that was quite easy to figure out as well (+).

When not navigating within a menu, the four directions on the disc offer options suggested by their labels.

- The zigzag arrow makes sense as a flash button. It enables the user to scroll through options on each click of the disc, describes the modes on-screen, makes the available choices readily visible, and executes the selection simply (+).

- The circle label on the bottom is meant to represent a timer for self-timing (+). Again, the on-screen description explains what it is and that is easily memorable once known (+). And it was also simple to figure out and use; the message on the screen describes exactly how it works and gives audible signals indicating how much time is remaining before the picture will be taken (+).

- The tulip icon doesn't really make sense relative to the options it toggles (-) which are: "focus with priority on very close subjects" or "auto focus from close-up to infinity".

- The DISP option on the disc displays a moving graph without any explanation of what it's measuring or why (-). A second click turns the display off. While it is confusing to have this function available but not usable, it didn't take anything away from the usefulness of the camera.

The Bottom

The door to where the battery and memory card are inserted has raised bumps in the shape of an arrow head making it obvious how to open it (+). And the shape of the battery and the opening constrain the battery's insertion. (+)

The Conclusion

Positives

It is easy to determine what possible actions are available (turn knobs, navigate menus, press the shutter button, insert the battery) based on the presence of the buttons and such, and the possible settings are easily understood by the messages on the screen, affording instant evaluation.

The immediate feedback of the taken picture on the screen allows error detection with the opportunity to try different settings. There is no risk of catastrophic error.

With a couple of noted exceptions, it is easy to evaluate the state of the system, operate it without written instructions and accomplish the given task. A few things that weren't immediately obvious were readily learned and memorable.

The camera is palm-sized and sleek, making it subjectively very satisfying.

Negatives

As noted above, evaluating the state of the system with the DISP button is impossible without referencing the manual. Some of the labels on the top wheel aren't obvious, but the messages on-screen will facilitate learning these with use.

Not mentioned above, but relevant: the menu options themselves could be better, but that's for another paper.

Bottom line

I love the camera. It's just right for me!

References

Nielsen, J. (1993). *Usability Engineering*. San Francisco, CA: Morgan Kaufmann.

Norman, D. A. (2002). *The Design of Everyday Things*. Jackson, TN: Basic Books .

ISO 9241-11:1998, Ergonomic requirements for office work with visual display terminals (VDTs) -- Part 11: Guidance on usability