

Instructions for using CowLog and the ethogram to observe and code behaviours in horse training video

You will need:

- A printout of these instructions.
- A printout page of the file 'An ethogram for Equitation Science's First Principles of Horse Training.pdf'.
- A printout page of the file 'pictogram ethogram quick reference card.pdf'.
- Microsoft Windows (tested up to version 8.1) running on a PC.
- Speakers or a headset for the PC.

Basic principles to keep in mind for conducting the behaviour coding session:

- Take the time to read the ethogram before you start. Compare the ethogram and the quick reference card. Make sure you understand how the quick reference card might help you to rapidly spot a behaviour (even though the wording and emphasis are slightly different).
- Don't forget that ethogram behaviours with the suffix '.2' (1.2, 2.2, 3.2 etc.) are all to be selected if a behaviour is described or demonstrated that runs **contrary** to the ethogram. So, if you see an example of a horse being trained to NOT persist with self-carriage, then the appropriate CowLog button to click would be 8.2.
- Don't worry about the duration of a behaviors, we are interested in a frequency count.
- Click the appropriate behaviour button in CowLog for each separate attempt to describe or demonstrate the associated behaviour on the video, even if they occur consecutively.
- When you are coding behaviours, you will need to set yourself up somewhere where you can sit comfortably for an hour or more, able to watch the video, and have both the ethogram and the quick reference card laid out in front of you.
- You can pause and rewind the video if required (using the controls on CowLog) but don't click Stop (the black square), until you have finished your coding session.
- If you see a behaviour on the video that you think is included in the ethogram, but you can't immediately decide on the behaviour code, then pause the video and take the time to consider, read through the ethogram etc..

Step-by-step guide to logging

1. In Windows Explorer, double-click the folder called CowLog.
2. Double-click CowLog.exe to run the CowLog software.
3. In CowLog, click File > Open Project.
4. In the 'Load project settings from' dialog, select the project file for the ISES ethogram (this file is currently called 'Equitation Science principles_project_3.json'), which should be found in the parent folder of Cowlog - you may need to go up one level.
5. Click Open.
6. Click File > New subject.

7. In the 'New Subject' dialog, type a subject name (this might be your name, for example 'Steve_PrincipleGames' or 'Steve1PurposeGames' or anything that helps you to identify this particular behaviour logging session and the video that it relates to).
8. Leave the Start Time as it is.
9. Click the Video file(s) button.
10. Navigate to the videos folder, which should be found in the parent folder of Cowlog - you may need to go up one level.
11. Double-click the videos folder.
12. Select one of the MP4 video files in the videos folder (ultimately, you will need to do a separate session / subject for each of the MP4 videos).
13. Click OK and the video should now open in a separate window, paused on the first frame.
14. Drag (and if necessary resize) the CowLog and video windows into a suitable screen layout for viewing and logging. For example, you might have CowLog on the left of the screen, sitting next to the video window. Note: the video is now controlled by the buttons in CowLog. Note: at any stage, if you need a break or want to consider which is an appropriate behaviour to log, then you can use CowLog's pause button, continuing as required. Clicking Stop (the black square), will end the logging session and you will not be able to continue, without creating a new subject.
15. When you are ready to start logging (make sure that you have the ethogram and the pictogram cheat sheet easily visible!), click the Play button in CowLog - the video should start.
16. When you identify an ethogram behaviour in the playing video, click the appropriate button on CowLog. Don't worry about the durations of behaviors, we are only logging instances. For example, if the video demonstrates the shaping of responses and movements (attempt behaviour and refine), then you should click the 4.1 button on CowLog. Click 4.1 for each separate attempt to describe or demonstrate the associated behaviour, even if they occur consecutively. For example, the video says: "...behaviours are not fully formed and you should reward early attempts..." CLICK! "...Start with an approximation of a behaviour and then refine..." CLICK! Note: the numbers in brackets in CowLog indicate the keyboard shortcuts. They have no relevance in terms of the behaviour codes. If the video demonstrates that a fully formed behaviour should emerge fully formed and perfect, the first time that you train it (!), then this would contradict Principle 4 and so you should click the button 4.2 (INCORRECTLY describing or demonstrating 4.1).
17. When you reach the end of the video, click the Stop button (black square). Note: you will notice in CowLog that the Current code field now includes the word 'END'.
18. You will need to repeat the above steps for each of the MP4 videos in the videos folder.
19. The output logging data files from your sessions will have the file extension .csv.
20. They should be found inside the CowLog folder, once the logging sessions have finished (each time you click Stop, a file will be created).
21. If you are curious, you can view the data files in Microsoft Excel, or some other advanced text editor. Even Notepad will work, but they are hard to read in this program.

22. It is these .csv files that are the output from your logging sessions.