

## SMOWL results explanation

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The images in this guide are validated against the registration images of the following user.



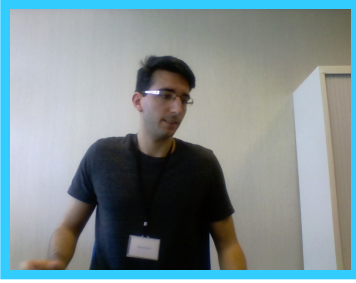
### Correct images

All images that allow to recognize the user.

The image can be cut off or too dark to a certain degree. Even the user's face does not have to be completely visible as long as it is recognizable.

All images which allow either automatic or manual recognition of the user will be marked as correct.





## Incorrect user

The user in the image's foreground does not match the registered user. Even if the correct user appears in the background of the image, the image will be considered as incorrect.



## Nobody in the image

Nobody is in the foreground of the image. Images that show whoever in the background, will also be filed under this category.



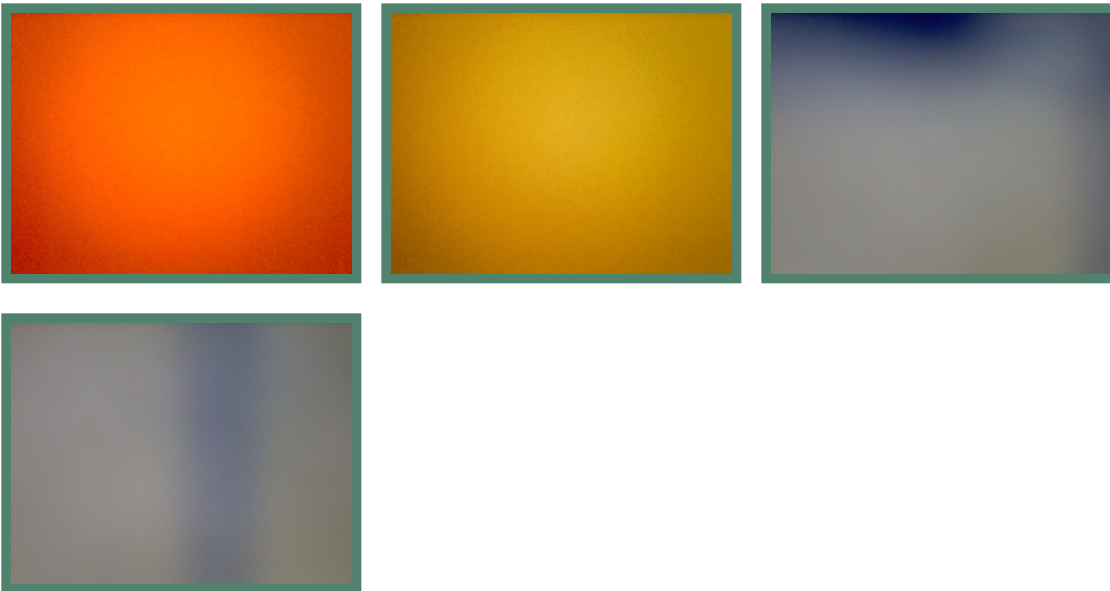
## More than one person

The user in the foreground of the image is the registered user. Additionally, there are one or more persons in the background or interacting with the user in the foreground. In case any other than the registered user is in the foreground, the image will be filed under "incorrect user".



## Webcam covered

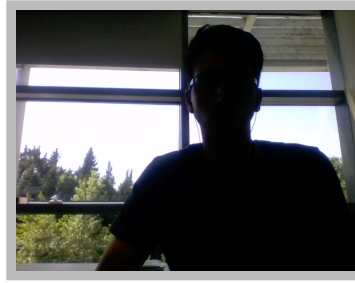
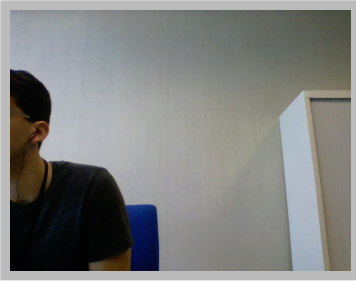
Homogeneous images that suggest that the camera has been covered with some kind of object, paper or similar or with user's own hand.



## Invalid conditions for review

The user cannot be recognised due to unsuitable conditions in terms of lighting or positioning.

Too dark, backlight, too bright or insufficient portion of the face visible.



## Cheat attempt

Any efforts of the user that implicate he or she tries to trick the system, such as mounting a photograph in front of the camera or replacing the ID card's image with someone else's.

Attempts to inject another image or video in signal of the camera are also detected.

## There is no webcam

If there is no webcam available, this is registered by the system but the access to the course/exam is not blocked.

## Other app

If another application blocks the course/exam to access the user's webcam, it is filed under this category.

## Webcam discarded

Images that result from denying or ignoring SMOWL's requests to access the webcam will be filed under this category.



## Not supported browser

Depending on the settings of the LMS platform, access via browsers that require Flash, such as Safari or the Internet Explorer, is not allowed.

Attempts to access a course/exam using these browsers will be filed here.

## User in other tab

If the user visits other tabs during the course/exam, no images are captured due to privacy issues during this time.

Instead, it is registered that the user has left the course for a certain amount of time.

## Camera error

Due to certain problems, black or empty images, or images with the camera logo are submitted.

This can be caused by:

- wrong or not installed camera is selected,
- an incorrect setup or activation of the camera,
- disconnecting an external camera after allowing SMOWL access,
- denying access to the camera during the activity,
- closing the lid of a laptop,
- logo images arrive from very slow devices when the camera takes some time to load.

