# Notes 30-03

## VAE method

We will use l1-loss with mini\_batch and “sum” metric. Run 5x with different initializations.

## Diversity / data augmentation

Paper in which they did the same. 15 images augmented and 15 original images.

Rotation and translation.

* Look at results with data augmentation and then decide if we use it or not

## Resolution solution

Deep VAE, extra convolution layers.

* Milan, run deep network with L1-loss function tonight.

## Report VAE

No equation for the KLD.

* Look at recommended paper and compare

## U-net training

Done

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| --- | --- |
| Friday | Milan: Results resolution + l1  Funmilayo: Results data augmentation >14:00  Noortje: look how to save images generated |
| Saturday | Noortje: run 3x  Noortje: segmentation of VAE-images with basic U-net |
| Sunday | Raquel: run u-net (5x) |
| Monday  9:00 | **Extra images provided**  Lotte: registration method extra images  Milan: U-net method extra images |
| Tuesday  **8:30 meeting** | Result analysis  Finalize report  Funmilayo: Introduction add ML part  Lotte: discussion registration  Milan: SPADE  Raquel: look at study design table + data augmentation in report  Christos: look at report, U-net part + organization of result presentation (present in table and optimizers) |
| Wednesday  13:00 | **Hand in results**  Everybody: add what you have done in the project |
| Thursday  23:59 🡪 17:00 | **Hand in report**  **9:00 meeting** |

## Generate images

15 images. There is an error in the segmentation, so that might decrease the final performance of the u-net. (If time left, we can try less images if the performance decreases)

Monday: extra images

Wednesday 13:00: upload results

Thursday 17:00: upload report

Compare U-net trained with and without images from VAE

Normal images + augmented images 🡪 VAE 🡪 generated images (segmented by basic u-net) + training images 🡪 final u-net