**04-Estimating**

**1-Relative sizing**

***Objective***: Have the participants understand relative sizing, and how to establish these sizes. Also to have them understand estimating has 2 parts – sizing and velocity.

***Materials***: Stories already written

***Time***: 30 minutes

***Preparation***: Have stories available to each group

Have each team practice relative sizing by estimating their own creature stories.

Explain the technique – choose what you think is the smallest story, and give this a value of 1 point. Using this as the baseline, estimate the complexity of each other story.

Don’t worry if they do not estimate every story.

**1a – Team estimating (short version)**

After a while of estimating as above (say 5 minutes, but they must have several stories already estimated), suggest team estimating to them.

Technique – develop affinity groups like-size stories. This is collaborative, so any team member can move stories form one group to another, but it needs to be after a discussion.

Once the initial affinity groups are done, ask the team if anyone wants to move stories to another group. Allow this movement for a while (if there is any).

Now have the team estimate each affinity group, using the stories they have already estimated as their baseline. Same rules (poker, thrown estimates) apply as for estimating single stories.

**2-Estimate your velocity**

***Objective***: Gain experience in estimating team velocity

***Materials***: Estimated stories from above, flip chart paper for each team, markers

**Time**: 10 minutes

***Preparation***: none

We have not talked about how many people will be working on this, nor how long each iteration might be. Have each team discuss these questions, and record their answers on the flip chart paper.

Now with these questions answered, we can play the velocity planning game.

Have each team estimate their velocity using the velocity planning game.

Have them do 3 or 4 rounds.

At the end of the time, have them agree on their base estimated velocity.

On the flip chart paper, have each team record their total estimated points, and their estimated velocity. Have them put this up on the wall.

**3-Initial time to market**

***Objective***: Be able to determine how many iterations it will take to complete – first estimate

***Materials***: Estimated stories and velocity from above

**Time**: 5 minutes

***Preparation***: none

Have each team calculate their estimated number of iterations needed to build their creature.

On the flip chart paper, have each team draw a graph (points vertically, iterations horizontally) and draw-in the projected story completion line.