Self-regulated learning (SRL) is crucial for an individual's learning process over time. However, teaching SRL skills is often done in an ineffective way or failed to implement in classes at all. Most current research that is focused on teaching SRL is done on high school and university level, while primary school students can also greatly benefit from better self-regulation. In a 7 week period, students in this study participated in an inquiry learning based project with the aim to design a house on the moon in which a family of four could survive. This project used differentiation methods to provide students with exercises on their ability level and adjusted instruction based on their self-regulated learning level. This study focuses on investigating the effect of explicit SRL instruction and a checktool in which students could regulate their progress on the SRL usage and availability of 7th and 8th grade primary school students in the Netherlands. Furthermore, it investigates the effect of SRL level on knowledge gain. Results indicate that the experimental group (N = 33) that received the intervention did not show more SRL, and contrary to the hypothesis the experimental group knew significantly less about SRL than students in the control group (N = 42). For most students, no significant effect was found of SRL level on knowledge gain, except one theme where students with a lower SRL level showed higher knowledge gain. These results are contrary to the assumptions. These results may be explained by the small number of schools participating, or the difficulty teachers experienced getting used to the environment. More research should be done to investigate instruction of SRL and the relationship between SRL level and knowledge gain.