

UNAWE Indonesia Project: Opening Window of Opportunity to Learn Astronomy for Blind and Low Vision People

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Pictures and descriptive stories are powerful tools to captivate admiration and people attention. Astronomy as an observational study rely heavily on the ability of eyes and mind to be able to grasp astronomical objects and phenomena. Visual images of planets, nebulae, and galaxies are become a great attraction for public education in astronomy. For blind people or those with limited vision, many of visual and descriptive concept are very difficult to grasp especially to those are blind since birth. With the hype and big exposure of Total Solar Eclipse (TSE) that passed Indonesia in 2016, we thought that it was a great opportunity for us to be able to share an extraordinary natural phenomena with the blind and low vision people. A visit on TSE activity with Syamsi Dhuha community before TSE 2016 gave us representation on how blind and low vision community are also giving great attention and interest in astronomical event. A simple hands-on and DIY tactile media using household apparatus were used to delivered physical concept of solar eclipse. Further work, UNAWE Indonesia collaborated with colleagues from ITB Faculty of Art and Design try to develop a low-cost astronomy hands-on based on Human-Centered Design (HCD). This method has three stage or phase. We have to understand and define what the users really need, sharing ideation and implementation product, as a result. Our visit to Syamsi Dhuha consisted of astronomy hands-on and tactile as part of outreach activity on the Sun, the TSE and the Solar System. The activities allowed them to compare the size of Earth to other planets. The activity gave us input on how we develop the product to help them learn about certain astronomical concept.