|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **First author, year of publication** | **Sturm 2011** | **Jones 2014** | **Hathibelagal 2015** | **Barsingerhorn 2019** | **Vrabic 2020** |
| **PARTICIPANTS** | 9 adults aged 23–35 years with no ophthalmic deficit other than refractive error. | 30 infants aged 2–12 months with no known visual problems or medical condition, 8 adults aged 21.6–39.9 years with normal or corrected-normal vision. | 20 infants aged 3.2–11 months with no known major medical problems, 15 adults aged 22–47 years with uncorrected myopia. | 88 children with normal vision aged 6–12 years, 34 children with visual impairment (either cerebral, congenital or acquitted) aged 6–12 years | 36 healthy children aged 5 months–16 years whith no ophthalmic deficit other than corrected refractive error. |
| **STANDARD TEST** | Teller acuity cards | Keeler acuity cards | Teller acuity cards | / | Keeler acuity cards, Lea symbols |
| **GAZE TRACKING TEST**   * Remote gaze/eye tracking system; frequency of operating | Vision 2020; El-Mar Inc, Toronto, Canada; 30 Hz | Tobii TX120; Tobii Technology AB; Danderyd, Sweden; 60 Hz | 7 infrared light  sources (3 of which were used), 2 video cameras (Point Grey Grasshopper 20S4MC) | Stereoscopic eye tracking system with 2 USB 3.0 cameras and 2 infrared light sources in a fully calibrated configuration with respect to the stimulus screen 300 Hz – 500 Hz | Tobii Pro X3-120, Tobii AB, Stockholm, Sweden; 120 Hz |
| * Viewing distance | 83 cm | 84 cm | Infants <6 months 70 cm, infants > 6 months 120 cm, adults 210 cm | 65 cm | 65 cm |
| * Digital stimuli details | 3 uniform gray fields and one field with black-and-white square wave grating. Frequency range: 1.5–35.1 cpd. | Horizontal Gabor patches: stationary sine-wave gratings, modulated by a Gaussian window. Frequency range: 0.61–15.3 cpd. | Horizontal square-wave gratings. Frequency range in adults: 0.58–37 cpd, children: 0.2–12.5 cpd. | 3 uniform gray fields and one field with black-and-white square wave grating. Frequencies showed: 1.05, 2.11 and 7.02 cpd. | 1 uniform gray field, 1 circular field with vertical square-wave gratings. Frequency range 0.29–14.5 cpd. |
| * Gaze tracking- controlled test | Four-alternative forced-choice test | 33-alternative forced-choice test | Four-alternative forced-choice test | Four-alternative forced-choice test | Two-alternative forced-choice test |
| * Determination of visual acuity on gaze tracking- controlled test | Conditional probability density functions of the relative fixation time. | Absolute fixation time criterion – at least 10 gaze samples (167 ms) within the target area to consider grating as resolved | Relative fixation time criterion (percentage of time fixating above the target area). | (1) primary saccade  ends on target (2) gaze 50% of the presentation time on target, and (3) a combination of method 1 and 2 | Relative fixation time criterion (percentage of time fixating above the target area). |
| * Attention grabber | / | Cartoons every three trials. | Cartoon videos between stimuli to maintain the infant’s attention. | High-contrast fixation dot at the center of the screen before each trial. | Cartoons every three trials. |
| * Testing time | 210 s | median test duration 101 s | / | / | 204 s |
| * Testability | 100% | 97% | 95%–100% | Visually impaired children 38%, children with normal vision 64% | 97% |