

EXPLANATION OF LAB-ON-LINE MEASURES AND FACTORS



Terminology

- VPF (Visual Processing Factor)
- CDF (Cognitive Development Factor)
- AIU (action-interpret-understand Factor)

LAB is focused on enhancing two factors, namely visual processing factor (VPF) and cognitive development factor (CDF). Each of these two factors incorporates measurable sub-elements. VPF is measured as words per minutes (wpm) read. CDF is measured as % comprehension against a complexity of content. The combined VPF and CDF multiplied leads to an AIU factor (action-interpret-understand). It is important to note that there are international norms for each of these measurable factors.



In terms of the AIU factor, LAB enhances the individual process of:

- **Taking Action** by improving visual processing of information and data.
- **Interpreting** and analysing the information and data.
- **Understand** the meaning to the work context leading to improved decision-making and work outcomes.

The AIU (action-interpret-understand) factor is key to cognitive development and ultimately enhanced work performance.



The Table and Figure below show results for participating students in a higher education institution over a 9-year period (different annual participants from the same institution). For this particular level, the international norm for the AIU Factor is 157. In the pre-course assessment, the average AIU Factor is shown for the group. As can be seen, all of the groups had a pre-course AIU Factor well below the international norm.

The post-course assessment shows the AIU Factor also against the international norm for this level (157). A significant average post-course improvement in this AIU Factor was achieved for all year groups.

It shows that LAB has led to an improvement in the AIU Factor and therefore in cognitive development at a rate higher than the international norm for the particular level.

TABLE 1: Institutional Group 1 - Detailed scores and measures (2008 – 2016)

 AIUF: Phase I1 (157)									
Group		Pre-evaluation				Post evaluation			
	#	VPF	CDF	AIUF	¹ NR	VPF	CDF	AIUF	¹ NR
2008	74	149	69%	102,81	-35%	273	80%	218,4	39%
2009	99	120	70%	84	-46%	375	80%	300	91%
2010	160	165	68%	112,2	-29%	285	85%	242,25	54%
2011	181	145	59%	85,55	-46%	337	70%	235,9	50%
2012	164	137	67%	91,79	-42%	353	69%	243,57	55%
2013	170	151	73%	110,23	-30%	328	72%	236,16	50%
2014	195	115	73%	83,95	-47%	255	71%	181,05	15%
2015	230	116	68%	78,88	-50%	255	65%	165,75	6%
2016	200	131	51%	66,81	-57%	289	67%	193,63	23%

FIGURE 1: Institutional Group 1 - 2016 profile results

