

## LAMPIRAN

### PERHITUNGAN MANUAL UJI VALIDITAS UNTUK 30 RESPONDEN

#### Uji validitas variabel Reliability

NO	R1	R2	R3	R4	TOTAL
1	5	4	4	4	17
2	4	4	5	4	17
3	5	5	4	4	18
4	4	4	4	4	16
5	4	3	4	4	15
6	4	4	4	4	16
7	5	4	4	5	18
8	5	3	4	5	17
9	4	3	4	4	15
10	4	5	4	4	17
11	4	4	4	4	16
12	4	4	4	4	16
13	4	4	5	4	17
14	4	5	5	4	18
15	5	4	5	4	18
16	4	5	4	4	17
17	4	4	4	4	16
18	4	4	4	4	16
19	5	5	4	4	18
20	5	5	4	5	19
21	5	5	5	4	19
22	5	5	5	4	19
23	5	5	5	5	20
24	5	5	5	5	20
25	5	5	4	5	19
26	5	5	5	5	20
27	5	5	5	4	19
28	5	5	5	5	20
29	5	5	5	5	20
30	5	5	5	5	20
<b>ΣX</b>	<b>137</b>	<b>133</b>	<b>133</b>	<b>130</b>	
<b>ΣY</b>					<b>533</b>
<b>ΣX<sup>2</sup></b>	<b>633</b>	<b>603</b>	<b>597</b>	<b>570</b>	
<b>ΣY<sup>2</sup></b>					<b>9545</b>
<b>ΣX.Y</b>	<b>2453</b>	<b>2388</b>	<b>2379</b>	<b>2325</b>	
<b>(ΣX)<sup>2</sup></b>	<b>18769</b>	<b>17689</b>	<b>17689</b>	<b>16900</b>	
<b>(ΣY<sup>2</sup>)</b>					<b>284089</b>

$$r = \frac{N(\sum XY) - (\sum X \sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

Keterangan:

r = Koefisien korelasi

N = Jumlah sampel (responden)

X = Skor pernyataan

Y = Skor total

Jika  $r_{hitung}$  lebih besar  $r_{Tabel}$  maka variabel dikatakan valid. Jika  $r_{hitung}$  lebih kecil  $r_{Tabel}$  maka variabel dikatakan tidak valid.

### Reliability1 (R1)

$$r1 = \frac{30(2453) - (137.533)}{\sqrt{[30.633 - 18769] [30.9545 - 284089]}}$$

$$r1 = \frac{73590 - 73021}{\sqrt{[18990 - 18769] [286350 - 284089]}}$$

$$r1 = \frac{569}{\sqrt{[221] [2261]}}$$

$$r1 = \frac{569}{\sqrt{499681}}$$

$$r1 = \frac{569}{706.881}$$

$$r1 = 0.805(\text{Valid})$$

### Reliability2 (R2)

$$r2 = \frac{30(2388) - (133.533)}{\sqrt{[30.603 - 17689] [30.9545 - 284089]}}$$

$$r2 = \frac{71640 - 70889}{\sqrt{[18090 - 17689] [286350 - 284089]}}$$

$$r2 = \frac{751}{\sqrt{[401] [2261]}}$$

$$r2 = \frac{751}{\sqrt{906661}}$$

$$r2 = \frac{751}{952.187}$$

$$r2 = 0.789(\text{Valid})$$

### Reliability3 (R3)

$$r3 = \frac{30(2379) - (133.533)}{\sqrt{[30.597 - 18769] [30.9545 - 284089]}}$$

$$r3 = \frac{71370 - 70889}{\sqrt{[17910 - 17689] [286350 - 284089]}}$$

$$r3 = \frac{481}{\sqrt{[221] [2261]}}$$

$$r3 = \frac{481}{\sqrt{499681}}$$

$$r3 = \frac{481}{706.881}$$

$$r3 = 0.680(\text{Valid})$$

### Reliability4 (R4)

$$r4 = \frac{30(2325) - (130.533)}{\sqrt{[30.570 - 16900] [30.9545 - 284089]}}$$

$$r4 = \frac{69750 - 69290}{\sqrt{[17100 - 16900] [286350 - 284089]}}$$

$$r4 = \frac{460}{\sqrt{[200] [2261]}}$$

$$r4 = \frac{460}{\sqrt{452200}}$$

$$r4 = \frac{460}{672.458}$$

$$r4 = 0.684(\text{Valid})$$

**PERHITUNGAN MANUAL UJI RELIABILITAS  
UNTUK 30 RESPONDEN**

NO	RELIABILITY									
	R1	R2	R3	R4	Total	Total <sup>2</sup>	R1 <sup>2</sup>	R2 <sup>2</sup>	R3 <sup>2</sup>	R4 <sup>2</sup>
1	5	4	4	4	17	289	25	16	16	16
2	4	4	5	4	17	289	16	16	25	16
3	5	5	4	4	18	324	25	25	16	16
4	4	4	4	4	16	256	16	16	16	16
5	4	3	4	4	15	225	16	9	16	16
6	4	4	4	4	16	256	16	16	16	16
7	5	4	4	5	18	324	25	16	16	25
8	5	3	4	5	17	289	25	9	16	25
9	4	3	4	4	15	225	16	9	16	16
10	4	5	4	4	17	289	16	25	16	16
11	4	4	4	4	16	256	16	16	16	16
12	4	4	4	4	16	256	16	16	16	16
13	4	4	5	4	17	289	16	16	25	16
14	4	5	5	4	18	324	16	25	25	16
15	5	4	5	4	18	324	25	16	25	16
16	4	5	4	4	17	289	16	25	16	16
17	4	4	4	4	16	256	16	16	16	16
18	4	4	4	4	16	256	16	16	16	16
19	5	5	4	4	18	324	25	25	16	16
20	5	5	4	5	19	361	25	25	16	25
21	5	5	5	4	19	361	25	25	25	16
22	5	5	5	4	19	361	25	25	25	16
23	5	5	5	5	20	400	25	25	25	25
24	5	5	5	5	20	400	25	25	25	25
25	5	5	4	5	19	361	25	25	16	25
26	5	5	5	5	20	400	25	25	25	25
27	5	5	5	4	19	361	25	25	25	16
28	5	5	5	5	20	400	25	25	25	25
29	5	5	5	5	20	400	25	25	25	25
30	5	5	5	5	20	400	25	25	25	25
<b>ΣX</b>	<b>137</b>	<b>133</b>	<b>133</b>	<b>130</b>	<b>533</b>	<b>9545</b>	<b>633</b>	<b>603</b>	<b>597</b>	<b>570</b>
<b>ΣX<sup>2</sup></b>	<b>18769</b>	<b>17689</b>	<b>17689</b>	<b>16900</b>	<b>284089</b>	<b>284089</b>				

**I. Mencari nilai varian butir:**

**RELIABILITAS1 (R1)**

**RELIABILITAS2 (R2)**

$$r1 = \frac{633 - \frac{137^2}{30}}{30}$$

$$r2 = \frac{603 - \frac{133^2}{30}}{30}$$

$$r1 = \frac{633 - \frac{18769}{30}}{30}$$

$$r2 = \frac{603 - \frac{17689}{30}}{30}$$

$$r1 = \frac{633 - 625,633}{30}$$

$$r2 = \frac{603 - 589,633}{30}$$

$$r1 = \frac{7,366}{30}$$

$$r2 = \frac{13,366}{30}$$

$$r1 = 0,245$$

$$r2 = 0,445$$

### RELIABILITAS3 (R3)

### RELIABILITAS4 (R4)

$$r3 = \frac{597 - \frac{133^2}{30}}{30}$$

$$r4 = \frac{570 - \frac{130^2}{30}}{30}$$

$$r3 = \frac{597 - \frac{17689}{30}}{30}$$

$$r4 = \frac{570 - \frac{16900}{30}}{30}$$

$$r3 = \frac{597 - 589,633}{30}$$

$$r4 = \frac{570 - 563,333}{30}$$

$$r3 = \frac{7,366}{30}$$

$$r4 = \frac{6,666}{30}$$

$$r3 = 0,245$$

$$r4 = 0,222$$

Jumlahkan hasil yang didapat:

$$\Sigma = r1 + r2 + r3 + r4 = 0,245 + 0,445 + 0,245 + 0,222 = 1,158$$

### II. Kemudian mencari nilai varians total:

$$\sigma_t^2 = \frac{9545 - \frac{533^2}{30}}{30}$$

$$\sigma_t^2 = \frac{9545 - \frac{284089}{30}}{30}$$

$$\sigma_t^2 = \frac{9545 - 9469,63}{30}$$

$$\sigma_t^2 = \frac{75,366}{30}$$

$$\sigma_t^2 = 2,5122$$

### III. Masukkan ke rumus:

$$r = \left( \frac{k}{k-1} \right) \left( 1 - \frac{\Sigma \sigma_b^2}{\sigma_t^2} \right)$$

$$r = \left(\frac{4}{4-1}\right) \left(1 - \frac{1,1588}{2,5122}\right)$$

$$r = \left(\frac{4}{3}\right) (1 - 0,461)$$

$$r = (1,333)(0,538)$$

$$r = \mathbf{0,718} \text{ (*Reliabel*)}$$