

LAMPIRAN 5

Uji Validitas X3 (Aktivitas)

No. Resp	ITEM INSTRUMEN X3															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Jumlah
1	4	4	5	5	1	5	4	4	3	5	4	2	4	4	4	58
2	3	4	4	5	4	5	4	5	4	5	5	5	5	4	5	67
3	3	3	2	2	4	1	4	4	4	4	4	3	4	3	4	49
4	1	4	4	4	4	4	4	5	5	5	5	1	3	3	3	55
5	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	44
6	4	5	4	3	4	5	4	5	3	5	4	5	4	5	3	63
7	5	4	5	5	4	5	5	5	5	5	5	5	5	5	5	73
8	3	4	3	3	4	5	5	3	2	3	3	3	5	4	4	54
9	4	4	5	1	5	5	5	5	5	5	5	5	5	4	4	67
10	3	5	4	5	5	5	5	5	5	5	5	5	5	5	5	72
11	4	4	3	3	4	4	4	3	3	2	3	3	3	3	5	51
12	3	3	5	5	3	5	3	5	4	4	4	5	5	5	5	64
13	3	3	2	4	4	5	5	3	5	3	4	4	4	3	4	56
14	5	5	5	5	5	4	4	5	5	5	5	1	5	5	5	69
15	2	3	3	3	3	3	3	1	3	3	3	3	4	3	4	44
16	5	5	4	4	3	3	5	3	5	4	4	3	5	5	5	63
17	3	4	4	4	3	3	3	4	4	3	3	3	4	4	2	51
18	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	58
19	4	5	4	4	5	4	4	3	4	3	3	4	4	4	4	59
20	4	4	4	5	4	3	4	3	4	5	4	5	3	5	4	61
Jumlah	70	79	77	75	76	81	82	78	80	81	80	72	84	81	82	1178
r hitung	0,518	0,568	0,692	0,518	0,406	0,59	0,551	0,704	0,585	0,717	0,776	0,442	0,662	0,8	0,559	
r tabel	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	0,444	
ket.	V	V	V	V	D	V	V	V	V	V	V	D	V	V	V	

$\sum X1^2$	$\sum X2^2$	$\sum X3^2$	$\sum X4^2$	$\sum X5^2$	$\sum X6^2$	$\sum X7^2$	$\sum X8^2$	$\sum X9^2$	$\sum X10^2$	$\sum X11^2$	$\sum X12^2$	$\sum X13^2$	$\sum X14^2$	$\sum X15^2$	Y^2
16	16	25	25	1	25	16	16	9	25	16	4	16	16	16	3364
9	16	16	25	16	25	16	25	16	25	25	25	25	16	25	4489
9	9	4	4	16	1	16	16	16	16	16	9	16	9	16	2401
1	16	16	16	16	16	16	25	25	25	25	1	9	9	9	3025
9	9	9	4	9	9	9	9	9	9	9	9	9	9	9	1936
16	25	16	9	16	25	16	25	9	25	16	25	16	25	9	3969
25	16	25	25	16	25	25	25	25	25	25	25	25	25	25	5329
9	16	9	9	16	25	25	9	4	9	9	9	25	16	16	2916
16	16	25	1	25	25	25	25	25	25	25	25	25	16	16	4489
9	25	16	25	25	25	25	25	25	25	25	25	25	25	25	5184
16	16	9	9	16	16	16	9	9	4	9	9	9	9	25	2601
9	9	25	25	9	25	9	25	16	16	16	25	25	25	25	4096
9	9	4	16	16	25	25	9	25	9	16	16	16	9	16	3136
25	25	25	25	25	16	16	25	25	25	25	1	25	25	25	4761
4	9	9	9	9	9	9	1	9	9	9	9	16	9	16	1936
25	25	16	16	9	9	25	9	25	16	16	9	25	25	25	3969
9	16	16	16	9	9	9	16	16	9	9	9	16	16	4	2601
16	9	16	9	16	16	16	16	16	16	16	16	16	16	16	3364
16	25	16	16	25	16	16	9	16	9	9	16	16	16	16	3481
16	16	16	25	16	9	16	9	16	25	16	25	9	25	16	3721
264	323	313	309	306	351	346	328	336	347	332	292	364	341	350	70768

XY1	XY2	XY3	XY4	XY5	XY6	XY7	XY8	XY9	XY10	XY11	XY12	XY13	XY14	XY15
232	232	290	290	58	290	232	232	174	290	232	116	232	232	232
201	268	268	335	268	335	268	335	268	335	335	335	335	268	335
147	147	98	98	196	49	196	196	196	196	196	147	196	147	196
55	220	220	220	220	220	220	275	275	275	275	55	165	165	165
132	132	132	88	132	132	132	132	132	132	132	132	132	132	132
252	315	252	189	252	315	252	315	189	315	252	315	252	315	189
365	292	365	365	292	365	365	365	365	365	365	365	365	365	365
162	216	162	162	216	270	270	162	108	162	162	162	270	216	216
268	268	335	67	335	335	335	335	335	335	335	335	335	268	268
216	360	288	360	360	360	360	360	360	360	360	360	360	360	360
204	204	153	153	204	204	204	153	153	102	153	153	153	153	255
192	192	320	320	192	320	192	320	256	256	256	320	320	320	320
168	168	112	224	224	280	280	168	280	168	224	224	224	168	224
345	345	345	345	345	276	276	345	345	345	345	69	345	345	345
88	132	132	132	132	132	132	44	132	132	132	132	176	132	176
315	315	252	252	189	189	315	189	315	252	252	189	315	315	315
153	204	204	204	153	153	153	204	204	153	153	153	204	204	102
232	174	232	174	232	232	232	232	232	232	232	232	232	232	232
236	295	236	236	295	236	236	177	236	177	177	236	236	236	236
244	244	244	305	244	183	244	183	244	305	244	305	183	305	244
4207	4723	4640	4519	4539	4876	4894	4722	4799	4887	4812	4335	5030	4878	4907

Lampiran 5

Uji Validitas Variabel X₃

Pengujian validitas dilakukan menggunakan rumus Korelasi Pearson

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

$$r_{xy} = \frac{20(4207) - (70)(1178)}{\sqrt{[(20(264) - (70)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{84140 - 82460}{\sqrt{(380)(27676)}} = \frac{1680}{3242,97} = 0,518$$

$$r_{xy} = \frac{20(4723) - (79)(1178)}{\sqrt{[(20(323) - (79)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{94460 - 93062}{\sqrt{(219)(27676)}} = \frac{1398}{2461,92} = 0,568$$

$$r_{xy} = \frac{20(4640) - (77)(1178)}{\sqrt{[(20(313) - (77)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{92800 - 90706}{\sqrt{(331)(27676)}} = \frac{2094}{3026,67} = 0,692$$

$$r_{xy} = \frac{20(4519) - (75)(1178)}{\sqrt{[(20(309) - (75)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{90380 - 88350}{\sqrt{(555)(27676)}} = \frac{2030}{3919,21} = 0,518$$

$$r_{xy} = \frac{20(4539) - (76)(1178)}{\sqrt{[(20(306) - (76)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{90780 - 89528}{\sqrt{(344)(27676)}} = \frac{1252}{3085,54} = 0,406$$

$$r_{xy} = \frac{20(4876) - (81)(1178)}{\sqrt{[(20(351) - (81)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{97520 - 95418}{\sqrt{(459)(27676)}} = \frac{2102}{3564,17} = 0,590$$

$$r_{xy} = \frac{20(4894) - (82)(1178)}{\sqrt{[(20(346) - (82)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{97880 - 96596}{\sqrt{(196)(27676)}} = \frac{1284}{2329,05} = 0,551$$

$$r_{xy} = \frac{20(4722) - (78)(1178)}{\sqrt{[(20(328) - (78)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{94440 - 91884}{\sqrt{(476)(27676)}} = \frac{2556}{3629,57} = 0,704$$

$$r_{xy} = \frac{20(4799) - (80)(1178)}{\sqrt{[(20(336) - (80)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{95980 - 94240}{\sqrt{(320)(27676)}} = \frac{1740}{2975,96} = 0,585$$

$$r_{xy} = \frac{20(4887) - (81)(1178)}{\sqrt{[(20(347) - (81)^2)(20(70768) - (1178)^2)]}}$$

$$r_{xy} = \frac{97740 - 95418}{\sqrt{(379)(27676)}} = \frac{2322}{3238,70} = 0,717$$

$$r_{xy} = \frac{20(4812)-(80)(1178)}{\sqrt{((20(332)-(80)^2(20(70768)-(1178)^2))}}$$

$$r_{xy} = \frac{96240-94240}{\sqrt{(240)(27676)}} = \frac{2000}{2577,25} = 0,776$$

$$r_{xy} = \frac{20(4335)-(72)(1178)}{\sqrt{((20(292)-(72)^2(20(70768)-(1178)^2))}}$$

$$r_{xy} = \frac{86700-84816}{\sqrt{(656)(27676)}} = \frac{1884}{4260,92} = 0,442$$

$$r_{xy} = \frac{20(5030)-(84)(1178)}{\sqrt{((20(364)-(84)^2(20(70768)-(1178)^2))}}$$

$$r_{xy} = \frac{100600-98952}{\sqrt{(224)(27676)}} = \frac{1648}{2489,86} = 0,662$$

$$r_{xy} = \frac{20(4878)-(81)(1178)}{\sqrt{((20(341)-(81)^2(20(70768)-(1178)^2))}}$$

$$r_{xy} = \frac{97560-95418}{\sqrt{(259)(27676)}} = \frac{2142}{2677,33} = 0,800$$

$$r_{xy} = \frac{20(4907)-(82)(1178)}{\sqrt{((20(350)-(82)^2(20(70768)-(1178)^2))}}$$

$$r_{xy} = \frac{98140-96596}{\sqrt{(276)(27676)}} = \frac{1544}{2763,80} = 0,559$$

Dari hasil perhitungan seluruh item ditampilkan pada tabel berikut

No Item	r hitung	r tabel	Ket
1	0,518	0,444	Valid
2	0,568	0,444	Valid
3	0,692	0,444	Valid
4	0,518	0,444	Valid
5	0,406	0,444	Tidak Valid
6	0,590	0,444	Valid
7	0,551	0,444	Valid
8	0,704	0,444	Valid
9	0,585	0,444	Valid
10	0,717	0,444	Valid
11	0,776	0,444	Valid
12	0,442	0,444	Tidak Valid
13	0,662	0,444	Valid
14	0,800	0,444	Valid
15	0,559	0,444	Valid

Dari hasil perhitungan seperti tercantum pada tabel diatas maka terdapat 2 item pernyataan pada variabel X_3 yang dinyatakan tidak valid dan harus dikeluarkan dari instrument.

Uji Reliabilitas Variabel X₃

Uji reliabilitas instrument dengan alpha cronbach, terlebih dahulu menghitung varians masing masing butir dengan rumus berikut,

$$\sigma_1^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{n}}{n-1}$$

$$\sigma_1^2 = \frac{264 - \frac{(70)^2}{20}}{19} = 1,000$$

$$\sigma_1^2 = \frac{323 - \frac{(79)^2}{20}}{19} = 0,576$$

$$\sigma_1^2 = \frac{313 - \frac{(77)^2}{20}}{19} = 0,871$$

$$\sigma_1^2 = \frac{309 - \frac{(75)^2}{20}}{19} = 1,460$$

$$\sigma_1^2 = \frac{306 - \frac{(76)^2}{20}}{19} = 0,905$$

$$\sigma_1^2 = \frac{351 - \frac{(81)^2}{20}}{19} = 1,208$$

$$\sigma_1^2 = \frac{346 - \frac{(82)^2}{20}}{19} = 0,910$$

$$\sigma_1^2 = \frac{328 - \frac{(78)^2}{20}}{19} = 1,23$$

$$\sigma_1^2 = \frac{336 - \frac{(80)^2}{20}}{19} = 0,842$$

$$\sigma_1^2 = \frac{347 - \frac{(81)^2}{20}}{19} = 0,950$$

$$\sigma_1^2 = \frac{332 - \frac{(80)^2}{20}}{19} = 0,874$$

$$\sigma_1^2 = \frac{292 - \frac{(72)^2}{20}}{19} = 1,726$$

$$\sigma_1^2 = \frac{364 - \frac{(84)^2}{20}}{19} = 0,589$$

$$\sigma_1^2 = \frac{341 - \frac{(81)^2}{20}}{19} = 0,681$$

$$\sigma_1^2 = \frac{350 - \frac{(82)^2}{20}}{19} = 0,921$$

Dari hasil perhitungan varians seluruh item ditampilkan pada tabel berikut

No item	σ_1^2
1	1,000
2	0,576
3	0,871
4	1,460
5	0,905
6	1,208
7	0,910
8	1,253

9	0,842
10	0,950
11	0,874
12	1,726
13	0,589
14	0,681
15	0,921
$\sum s_i^2$	11,804

Menghitung varians total item sebagai berikut

$$\sigma_1^2 = \frac{70768 - \frac{(1178)^2}{20}}{19} = 72,831$$

Menghitung nilai Alpha Cronbach dengan rumus

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum s_i^2}{s_i^2} \right)$$

$$r_{11} = \left(\frac{20}{19} \right) \left(1 - \frac{14,766}{72,831} \right)$$

$$r_{11} = (1,053)(0,797)$$

$$r_{11} = 0,839 \text{ (reliabilitasnya sangat tinggi)}$$