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LAMPIRAN

Lampiran 1. Kuesioner Nordic Body Map

Untuk pertanyaan bagian A dan B selain No 1, No 2 dan No 3, mohon beri tanda (✓) pada jawaban pertanyaan berikut.

A. DATA RESPONDER

1. Nama Responden : _____

2. No. Telp / Email : _____

3. Umur : _____

4. Pengalaman dibidang proyek konstruksi

> 5 bulan 5 - 10 Tahun

3 bulan - 1Tahun lebih dari 10 tahun

1 – 5 Tahun

B. Jenis Pekerjaan

Pekerjaan Pengecora pekerjaan pemasangan dinding bata

C. Kebiasaan Merokok

Merokok Tidak Merokok

D. Lama Kerja

> 8jam < 8 jam

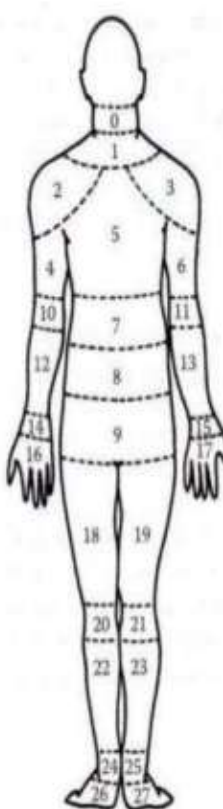
E. INDIKATOR DAN DAFTAR PERTANYAAN

Mohon mengisi pertanyaan berikut berdasarkan keluhan *musculoskeletal* yang anda rasakan mulai dari No 0 - 27 berdasarkan peta bagian tubuh berikut, dengan memberi tanda (✓) pada setiap kolom yang telah disediakan mulai dari **tidak sakit, agak sakit, sakit** dan **sangat sakit** untuk tingkat keparahan keluhan MSds yang anda rasakan. Terima kasih atas perhatian dan partisipasinya.

Berikut penjabaran skala faktor-faktor yang ada terhadap penilaian keluhan *musculoskeletal* (MSdS).

1. Tingkat Keparahan :

- Tidak sakit : Tidak ada keluhan dan tidak mengganggu pekerjaan
- Agak Sakit : Ada keluhan dan mulai/cenderung mengganggu pekerjaan
- Sakit : Nyeri yang mengganggu pekerjaan
- Sangat sakit : Sangat nyeri sehingga tidak dapat melakukan pekerjaan

NO	Jenis Keluhan	Tingkat keluhan				Peta Bagian Tubuh
		Tidak Sakit	Agak Sakit	Sakit	Sangat Sakit	
0	Sakit/kaku di leher bagian atas					
1	Sakit/kaku di leher bagian bawah					
2	Sakit di bahu kiri					
3	Sakit di bahu kanan					
4	Sakit pada lengan atas kiri					
5	Sakit di punggung					
6	Sakit pada lengan atas kanan					
7	Sakit pada pinggang					
8	Sakit pada bokong					
9	Sakit pada pantat					
10	Sakit pada siku kiri					
11	Sakit pada siku kanan					
12	Sakit pada lengan bawah kiri					
13	Sakit pada lengan bawah kanan					
14	Sakit pada pergelangan tangan kiri					
15	Sakit pada pergelangan tangan kanan					
16	Sakit pada tangan kiri					
17	Sakit pada tangan kanan					
18	Sakit pada paha kiri					
19	Sakit pada paha kanan					
20	Sakit pada lutut kiri					
21	Sakit pada lutut kanan					
22	Sakit pada betis kiri					
23	Sakit pada betis kanan					
24	Sakit pada pergelangan kaki kiri					
25	Sakit pada pergelangan kaki kanan					
26	Sakit pada kaki kiri					
27	Sakit pada kaki kanan					

Lampiran 2. Lembar Observasi Reba

REBA Employee Assessment Worksheet

Task Name:

Date:

A. Neck, Trunk and Leg Analysis

Step 1: Locate Neck Position

Step 1a: Adjust...
If neck is twisted: +1
If neck is side bending: +1

Step 2: Locate Trunk Position

Step 2a: Adjust...
If trunk is twisted: +1
If trunk is side bending: +1

Step 3: Legs

Adjust: 30-60° +1, 60° +2

Step 4: Look-up Posture Score in Table A
Using values from steps 1-3 above, locate score in Table A

Step 5: Add Force/Load Score
If load < 11 lbs.: +0
If load 11 to 22 lbs.: +1
If load > 22 lbs.: +2
Adjust: If shock or rapid build up of force: add +1

Step 6: Score A. Find Row in Table C
Add values from steps 4 & 5 to obtain Score A. Find Row in Table C.

Scoring
1 = Negligible Risk
2-3 = Low Risk. Change may be needed.
4-7 = Medium Risk. Further Investigate. Change Soon.
8-10 = High Risk. Investigate and Implement Change
11+ = Very High Risk. Implement Change

Scores

	Neck											
	1				2				3			
Legs	1	2	3	4	1	2	3	4	1	2	3	4
Trunk Posture	1	2	3	4	1	2	3	4	1	2	3	4
Score	1	2	3	4	5	6	7	8	9	10	11	12

	Lower Arm					
	1			2		
Wrist	1	2	3	1	2	3
Upper Arm	1	2	3	4	5	6
Score	1	2	3	4	5	6

Score A	Score B												
	1	1	1	1	2	3	3	4	5	6	7	7	7
2	1	2	2	3	4	4	5	6	7	8	8	8	8
3	2	3	3	3	4	5	6	7	8	9	9	9	9
4	3	4	4	4	5	6	7	8	9	10	10	10	10
5	4	4	4	5	6	7	8	9	10	11	11	11	11
6	5	6	6	7	8	9	10	11	12	12	12	12	12
7	7	7	7	8	9	10	11	12	12	12	12	12	12
8	8	8	8	9	10	11	12	12	12	12	12	12	12
9	9	9	9	10	11	12	12	12	12	12	12	12	12
10	10	10	10	11	12	12	12	12	12	12	12	12	12
11	11	11	11	12	12	12	12	12	12	12	12	12	12
12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table C Score + Activity Score = REBA Score

B. Arm and Wrist Analysis

Step 7: Locate Upper Arm Position:

Step 7a: Adjust...
If shoulder is raised: +1
If upper arm is abducted: +1
If arm is supported or person is leaning: -1

Step 8: Locate Lower Arm Position:

Step 9: Locate Wrist Position:

Step 9a: Adjust...
If wrist is bent from midline or twisted: Add +1

Step 10: Look-up Posture Score in Table B
Using values from steps 7-9 above, locate score in Table B

Step 11: Add Coupling Score
Well fitting Handle and mid range power grip, **good: +0**
Acceptable but not ideal hand hold or coupling acceptable with another body part, **fair: +1**
Hand hold not acceptable but possible, **poor: +2**
No handles, awkward, unsafe with any body part, **Unacceptable: +3**

Step 12: Score B. Find Column in Table C
Add values from steps 10 & 11 to obtain Score B. Find column in Table C and match with Score A in row from step 6 to obtain Table C Score.

Step 13: Activity Score
+1 1 or more body parts are held for longer than 1 minute (static)
+1 Repeated small range actions (more than 4x per minute)
+1 Action causes rapid large range changes in postures or unstable base

Lampiran 3. Uji Validitas

Correlations

		Tingkat Keluhan MSDs	Umur	Masa Kerja	Lama Kerja	Kebiasaan Merokok	total
Tingkat Keluhan MSDs	Pearson Correlation	1	.365*	.582**	.566**	.338	.779**
	Sig. (2-tailed)		.040	.000	.001	.059	.000
	N	32	32	32	32	32	32
Umur	Pearson Correlation	.365*	1	.832**	.463**	.044	.787**
	Sig. (2-tailed)	.040		.000	.008	.810	.000
	N	32	32	32	32	32	32
Masa Kerja	Pearson Correlation	.582**	.832**	1	.463**	.195	.880**
	Sig. (2-tailed)	.000	.000		.008	.284	.000
	N	32	32	32	32	32	32
Lama Kerja	Pearson Correlation	.566**	.463**	.463**	1	.553**	.727**
	Sig. (2-tailed)	.001	.008	.008		.001	.000
	N	32	32	32	32	32	32
Kebiasaan Merokok	Pearson Correlation	.338	.044	.195	.553**	1	.432*
	Sig. (2-tailed)	.059	.810	.284	.001		.014
	N	32	32	32	32	32	32
total	Pearson Correlation	.779**	.787**	.880**	.727**	.432*	1
	Sig. (2-tailed)	.000	.000	.000	.000	.014	
	N	32	32	32	32	32	32

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Lampiran 4. Uji Reabilitas

Case Processing Summary

		N	%
Cases	Valid	32	100.0
	Excluded ^a	0	.0
	Total	32	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.785	5

Lampiran 5. Output SPSS 20 Hasil Analisis Univariat

		Statistics					
		Tingkat Keluhan MSDs	Tingkat Resiko Ergonomi	Umur	Masa Kerja	Lama Kerja	Kebiasaan Merokok
N	Valid	32	32	32	32	32	32
	Missing	0	0	0	0	0	0

a) Keluhan MSDs

		Tingkat Keluhan MSDs			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sedang	11	34.4	34.4	34.4
	Tinggi	18	56.3	56.3	90.6
	Sangat Tinggi	3	9.4	9.4	100.0
	Total	32	100.0	100.0	

b) Tingkat Resiko Ergonomi

		Tingkat Resiko Ergonomi			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sedang	12	37.5	37.5	37.5
	Tinggi	15	46.9	46.9	84.4
	Sangat Tinggi	5	15.6	15.6	100.0
	Total	32	100.0	100.0	

c) Umur

		Umur			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25 Tahun	4	12.5	12.5	12.5
	26-35 Tahun	8	25.0	25.0	37.5
	36-45 Tahun	13	40.6	40.6	78.1
	46-55 Tahun	7	21.9	21.9	100.0
	Total	32	100.0	100.0	

d) Masa Kerja

Masa Kerja

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	>5 Tahun	10	31.3	31.3	31.3
	6-10 Tahun	15	46.9	46.9	78.1
	< 10 Tahun	7	21.9	21.9	100.0
Total		32	100.0	100.0	

e) Lama Kerja

Lama Kerja

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 8 Jam	18	56.3	56.3	56.3
	> 8 Jam	14	43.8	43.8	100.0
Total		32	100.0	100.0	

f) Kebiasaan Merokok

Kebiasaan Merokok

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Merokok	19	59.4	59.4	59.4
	Tidak Merokok	13	40.6	40.6	100.0
Total		32	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Tingkat Keluhan MSDs	32	2	4	2.75	.622
Tingkat Resiko Ergonomi	32	2	4	2.78	.706
Umur	32	1	4	2.72	.958
Masa Kerja	32	1	3	1.91	.734
Lama Kerja	32	1	2	1.44	.504
Kebiasaan Merokok	32	1	2	1.41	.499
Valid N (listwise)	32				

Lampiran 6. Analisis Bivariat (Uji Chi- Square)

Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Tingkat Resiko Ergonomi * Tingkat Keluhan MSDs	32	100.0%	0	0.0%	32	100.0%
Umur * Tingkat Keluhan MSDs	32	100.0%	0	0.0%	32	100.0%
Masa Kerja * Tingkat Keluhan MSDs	32	100.0%	0	0.0%	32	100.0%
Lama Kerja * Tingkat Keluhan MSDs	32	100.0%	0	0.0%	32	100.0%
Kebiasaan Merokok * Tingkat Keluhan MSDs	32	100.0%	0	0.0%	32	100.0%

1. Tingkat Resiko ergonomi

Crosstab

		Tingkat Keluhan MSDs			Total	
		Sedang	Tinggi	Sangat Tinggi		
Tingkat Resiko Ergonomi	Sedang	Count	9	3	0	12
		Expected Count	4.1	6.8	1.1	12.0
	Tinggi	Count	2	12	1	15
		Expected Count	5.2	8.4	1.4	15.0
	Sangat Tinggi	Count	0	3	2	5
		Expected Count	1.7	2.8	.5	5.0
Total		Count	11	18	3	32
		Expected Count	11.0	18.0	3.0	32.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.257 ^a	4	<.001
Likelihood Ratio	19.351	4	<.001
Linear-by-Linear Association	14.289	1	<.001
N of Valid Cases	32		

a. 6 cells (66.7%) have expected count less than 5. The minimum expected count is .47.

2. Umur

Crosstab

		Tingkat Keluhan MSDs			Total	
		Sedang	Tinggi	Sangat Tinggi		
Umur	17-25 Tahun	Count	3	1	0	4
		Expected Count	1.4	2.3	.4	4.0
	26-35 Tahun	Count	4	4	0	8
		Expected Count	2.8	4.5	.8	8.0
	36-45 Tahun	Count	3	7	3	13
		Expected Count	4.5	7.3	1.2	13.0
	46-55 Tahun	Count	1	6	0	7
		Expected Count	2.4	3.9	.7	7.0
Total		Count	11	18	3	32
		Expected Count	11.0	18.0	3.0	32.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.022 ^a	6	.124
Likelihood Ratio	10.815	6	.094
Linear-by-Linear Association	4.134	1	.042
N of Valid Cases	32		

a. 11 cells (91.7%) have expected count less than 5. The minimum expected count is .38.

3. Masa Kerja

Crosstab

		Tingkat Keluhan MSDs			Total	
		Sedang	Tinggi	Sangat Tinggi		
Masa Kerja	>5 Tahun	Count	7	3	0	10
		Expected Count	3.4	5.6	.9	10.0
	6-10 Tahun	Count	4	10	1	15
		Expected Count	5.2	8.4	1.4	15.0
	< 10 Tahun	Count	0	5	2	7
		Expected Count	2.4	3.9	.7	7.0
Total		Count	11	18	3	32
		Expected Count	11.0	18.0	3.0	32.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.965 ^a	4	.018
Likelihood Ratio	13.716	4	.008
Linear-by-Linear Association	10.517	1	.001
N of Valid Cases	32		

a. 6 cells (66.7%) have expected count less than 5. The minimum expected count is .66.

4. Lama Kerja

Crosstab

		Tingkat Keluhan MSDs			Total	
		Sedang	Tinggi	Sangat Tinggi		
Lama Kerja	< 8 Jam	Count	11	6	1	18
		Expected Count	6.2	10.1	1.7	18.0
	> 8 Jam	Count	0	12	2	14
		Expected Count	4.8	7.9	1.3	14.0
Total	Count	11	18	3	32	
	Expected Count	11.0	18.0	3.0	32.0	

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.037 ^a	2	.001
Likelihood Ratio	17.127	2	<.001
Linear-by-Linear Association	9.923	1	.002
N of Valid Cases	32		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.31.

5. Kebiasaan Merokok

Crosstab

		Tingkat Keluhan MSDs			Total	
		Sedang	Tinggi	Sangat Tinggi		
Kebiasaan Merokok	Merokok	Count	9	9	1	19
		Expected Count	6.5	10.7	1.8	19.0
	Tidak Merokok	Count	2	9	2	13
		Expected Count	4.5	7.3	1.2	13.0
Total		Count	11	18	3	32
		Expected Count	11.0	18.0	3.0	32.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.796 ^a	2	.150
Likelihood Ratio	4.026	2	.134
Linear-by-Linear Association	3.535	1	.060
N of Valid Cases	32		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.22.

Lampiran 7. Dokumentasi



