

APPENDIX I

Interview Schedule cum Observation Sheet

Code no. _____

Date _____

Dear Respondent,

I am pursuing Ph.D. in Department of Family & Community Resource Management, Faculty of Family & Community Sciences, The M.S. University of Baroda, Vadodara. The title of my dissertation is “Musculoskeletal pain and Postural Discomfort of Marble Cutters”. I would be highly obliged if you could extend your co-operation by filling the The researcher ensures that the responses given by you will be kept totally.

Yours' faithfully

**Vashima Veerkumar
Ph.D. Student**

SECTION 1

Demographic data of the workers

1. Name of the respondent:

2. Age:

3. Educational Qualification

- Illiterate
- Functional literate
- Primary education
- Middle education
- High school and intermediate
- Graduate
-

4. Employment status of the workers: -

Name of the
institution/organization.....

Designation/post
head.....

Total service(in
years).....

Experience in present
organization.....

5. Monthly income of the worker in Rs.

6. Family annual income in Rs.

7. Are you
1. Right Handed
 2. Left Handed.
 3. Ambidextrous

8. Perceived health status of the workers

Status of health	Very good	Good	Fair	Poor	Very poor
Before work					
During work					
After work					

SECTION 2

Anthropometric data of the workers and workstation dimension of the workstation

9. Anthropometric data of the respondents

Data	Measurements
Height (inches)	
Arm span (inches)	
Standing Shoulder Height (inches)	
Standing Elbow height (inches)	
Standing Upper arm length (inches)	
Standing Forearm length (inches)	
Standing Eye height (inches)	
Reaches	
Vertical Maximum Reach (inches)	
Vertical Minimum Reach (inches)	
Horizontal Maximum Reach (inches)	
Horizontal Minimum Reach (inches)	

10. Dimensions of the Workstation

Dimensions of the Workstation (in inches)	
Height from the floor to the horizontal plane for keeping marble	
Height from the floor to the pulley	
Width of the Workstation	
Length of the Workstation	

SECTION 3

Data on the Working environment of the workers

11. Type of Environment

11.1. Measurement of Light and Noise

	Light (lux)				Noise (db)			
	1 st Reading	2 nd Reading	3 rd Reading	Average	1 st Reading	2 nd Reading	3 rd Reading	Average
Measurement								

11.1 Analysis of illumination through visual Comfort and Preference Cards

Comfort Cards			Preference Cards		
Weightage	Description	Response	Weightage	Description	Response
1	Much too light		1	I wish it had less light in here	
2	Too much light		2	I like it just as it is.	
3	Comfortable light		3	I wish it had more light	
4	Just comfortable light				
5	Slightly dark				
6	Too dark				
7	Much too dark				

11.2. Measurement of Humidity and Temperature

	Humidity (%)				Temperature (°C)			
	1 st Reading	2 nd Reading	3 rd Reading	Average	1 st Reading	2 nd Reading	3 rd Reading	Average
Measurement								

11.3. Measurement of Vibration

	Vibration			
	1 st Reading	2 nd Reading	3 rd Reading	Average
At the Pulley				
Slab near Marble Cutter				
Slab away from the Marble Cutter				
On the Wooden bar on the Machine				
On the Floor				

12. Assessment of the working environment (PMA Ergonomics Checklist, ISO 9001:2000)

S.no	Working Environment	Yes	No
1.	Were you trained for managing		
	a. Posture		
	b. Repetition of work		
	c. Stress		
	d. Vibration		
2.	Were you provided any training concerning to perform jobs decrease injuries?		
3.	Were you provided any training concerning to the use of tools to decrease injuries?		
6.	Are you provided with the rest breaks, in addition to the regular rest break to relieve stress from repetitive motion task?		
7.	Do you wear gloves while working?		
	Do you wear anything for protection of hands		
8.	Do you wear any of the following while working on the machinery to avoid the noise produced by the machines?		
	a) Ear plugs		
	b) Cotton		
	c) Cloth wrapped around ears		
	d) Cap		

SECTION 4

Data on perceived musculoskeletal pain experienced by the workers

13. Kindly mention the pain experienced in various parts of the body

S.no	Pain experienced in various parts of the body	Discomfort or pain experienced			
		Since 7 days		Since 12 months	
		Yes	No	Yes	No
A.	NECK				
1.	Do you experience pain while moving your neck				
	a. Upwards				
	b. Down				
	c. Right side				
	d. Left side				
	e. Rotating clockwise				
	f. Rotating Anticlockwise				
	g. While Resting				
2.	Does the pain in the neck hinder in continuing your daily activity?				
B.	SHOULDER				
3.	Do you have pain in your shoulder while lifting marble slab?				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab				
	a. Right side				
	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				
4.	Do you have pain in your shoulder while lifting your hand? If yes, then in which side				
	a. Right shoulder				
	b. Left shoulder				
5.	Do you experience pain in your shoulder while resting				
	a. Right side				
	b. Left side				
6.	Do you experience any pain while rotating your shoulder clockwise				
	a. Right Side				
	b. Left Side				
7.	Do you feel pain while rotating your shoulder anticlockwise				

	a. Right Side				
	b. Left Side				
8.	Does the pain hinder in continuing the daily activities?				
C	ELBOW				
9.	Do you feel any pain while lifting the marble slab?				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab				
	a. Right side				
	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				
10.	Do you feel any pain while tightening the screw				
	a. Right Side				
	b. Left Side				
11.	Do you feel any pain while at rest				
	a. Right Side				
	b. Left Side				
12.	Does the pain hinder in continuing your daily activity?				
D	WRIST				
13.	Do you experience any pain in wrist while lifting the marble slab?				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab				
	a. Right side				
	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				
14.	Is there any pain in your wrist while moving it				
	a. Upward				
	• Right Side				
	• Left Side				

	b. Downward				
	• Right Side				
	• Left Side				
	c. Clockwise				
	• Right Side				
	• Left Side				
	d. Anti clockwise				
	• Right Side				
	• Left Side				
15.	Do you experience pain in the wrist while resting?				
	a. Right side				
	b. Left side				
16.	Does the pain hinder in continuing the daily activity?				
E	ARMS				
17.	Do you have any pain in your left forearm				
	a. While lifting the marble slab				
	• Overhead				
	• Chest level				
	• Below chest				
	• While keeping the marble slab on a surface				
	• While carrying the marble slab				
	b. While resting				
	c. While tightening a screw				
18.	Do you experience any pain in your right forearm while lifting the marble slab?				
	a. While lifting any object				
	• Overhead				
	• Chest level				
	• Below chest				
	• While keeping the marble slab on a surface				
	• While carrying the marble slab				
	b. While resting				
	c. While tightening a screw				
19.	Do you have any pain in your left upper arm				
	a. While lifting the marble slab				
	b. While resting				
20.	Do you experience any pain in your right upper arm while lifting any object?				
	a. While lifting the marble slab				
	b. While resting				
21.	Does the pain hinder in continuing your daily activities?				
F	PALM				
22.	Do you feel any pain while gripping something?				
	a. Right hand fingers				
	b. Left hand fingers				
23.	Do you feel any pain while grasping?				
	a. Right hand fingers				

	b. Left hand fingers				
24.	Does the pain hinder in continuing your daily activity?				
25.	Do you experience pain in your palm while resting				
E	BACK				
26.	Have you experienced any pain in upper back				
	a. While bending down				
	b. While lifting the marble slab				
	• Overhead				
	• Chest level				
	• Below chest				
	• While keeping the marble slab on a surface				
	• While carrying the marble slab				
	c. While resting				
27.	Have you experienced any pain in upper back				
	a. While bending down				
	b. While lifting the marble slab				
	• Overhead				
	• Chest level				
	• Below chest				
	• While keeping the marble slab on a surface				
	• While carrying the marble slab				
	c. While resting				
28.	Have you experienced any pain in lower back?				
	a. While bending down				
	b. While lifting the marble slab				
	• Overhead				
	• Chest level				
	• Below chest				
	• While keeping the weight on a surface				
	• While carrying the weight				
	c. While resting				
29.	Does the pain hinder in continuing your daily activities?				
	HIP				
30.	Do you feel any pain in the hip while sitting on a chair? If yes, then which side				
	a. Right side				
	b. Left side				
31.	Do you feel any pain while in squatting position? If yes then which side				
	a. Right side				
	b. Left side				
32.	Do you feel any pain while walking? If yes, then which side?				
	a. Right side				
	b. Left side				

33.	Do you feel any pain while standing still? If yes then which side?				
	a. Right side				
	b. Left side				
34.	Do you feel any pain while standing to sitting? If yes then which side?				
	a. Right side				
	b. Left side				
35.	Do you feel any pain while sitting to standing? If yes then which side?				
	a. Right side				
	b. Left side				
G	KNEES				
36.	Do you experience any pain in your knees while sitting on a chair? If yes, kindly mention the side				
	a. Right side				
	b. Left side				
37.	Do you experience any pain in your knees while sitting on the floor/ mattress / cross-legged? If yes, mention the side				
	a. Right knee				
	b. Left knee				
38.	Do you experience pain in your knee while walking? If yes, which side				
	a. Right Knee				
	b. Left Knee				
39.	Do you experience pain in your knee while running? If yes, which side				
	a. Right side				
	b. Left side				
40.	Do you have pain in your knees while sitting in squatting position? If yes, then				
	a. Right Knee				
	b. Left Knee				
41.	Do you have pain in your knees while lifting the marble slab? If yes, then				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab on a surface				
	a. Right side				
	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				
42.	Do you feel any pain while standing still?				

	a. Right knee				
	b. Left Knee				
43.	Do you feel any pain while standing to sitting? If yes then which side?				
	a. Right side				
	b. Left side				
44.	Do you feel any pain while sitting to standing? If yes then which side?				
	a. Right side				
	b. Left side				
45.	Do you have pain in your knees while resting? If yes, then				
	a. Right Knee				
	b. Left Knee				
46.	Does the pain in the knee hinder with the daily work?				
H	THIGH & LEG				
47.	Do you experience any pain in your thigh while sitting on a chair? If yes, kindly mention the side				
	a. Right side				
	b. Left side				
48.	Do you experience any pain in your thigh while sitting on the floor/ mattress / cross-legged? If yes, mention the side				
	a. Right side				
	b. Left side				
49.	Do you experience pain in your thigh while walking? If yes, which side				
	a. Right side				
	b. Left side				
50.	Do you experience pain in your thigh while running? If yes, which side				
	a. Right side				
	b. Left side				
51.	Do you have pain in your thigh while sitting in squatting position? If yes, then				
	a. Right side				
	b. Left side				
52.	Do you have pain in your thigh while lifting the marble slab?				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab on a surface				
	a. Right side				

	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				
53.	Do you feel any pain in thigh while standing still?				
	a. Right side				
	b. Left side				
54.	Do you feel any pain while standing to sitting? If yes then which side?				
	a. Right side				
	b. Left side				
55.	Do you feel any pain while sitting to standing? If yes then which side?				
	a. Right side				
	b. Left side				
56.	Do you have pain in your thigh while resting? If yes, then				
	a. Right side				
	b. Left side				
57.	Does the pain in the thigh hinder with the daily work?				
	a. Right side				
	b. Left side				
58.	Do you experience pain in your leg while walking? If yes, then				
	a. Right side				
	b. Left side				
59.	Do you experience pain in your leg while running? If yes, then				
	a. Right side				
	b. Left side				
60.	Have you experienced pain in your leg while sitting in a squatting position? If yes, then				
	a. Right side				
	b. Left side				
61.	Do you experience pain in your leg while lifting the marble slab? If yes, then mention				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab on a surface				
	a. Right side				
	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				

62.	Do you experience pain in the leg while resting?				
	a. Right Side				
	b. Left side				
63.	Do you experience pain in the leg while standing still?				
	a. Right side				
	b. Left side				
64.	Do you feel any pain while standing to sitting? If yes then which side?				
	a. Right side				
	b. Left side				
65.	Do you feel any pain while sitting to standing? If yes then which side?				
	a. Right side				
	b. Left side				
66.	Does the pain in the leg affect your daily activities?				
I	FEET				
67.	Do you experience any pain in your feet while walking? If yes				
	a. Right side				
	b. Left side				
68.	Have you experienced pain in your feet while sitting in a squatting position? If yes, then				
	a. Right side				
	b. Left side				
69.	Do you experience pain in your feet while running? If yes, then				
	a. Right side				
	b. Left side				
70.	Do you experience pain in your feet while lifting the marble slab? If yes, then mention				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab on a surface				
	a. Right side				
	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				
71.	Do you experience pain in the feet while resting?				
	a. Right Side				
	b. Left side				
72.	Do you experience pain while standing still?				

	a. Right side				
	b. Left side				
73.	Do you feel any pain while standing to sitting? If yes then which side?				
	a. Right side				
	b. Left side				
74.	Do you feel any pain while sitting to standing? If yes then which side?				
	a. Right side				
	b. Left side				
75.	Does the pain in the feet affect your daily activities?				
J	ANKLES				
76.	Do you experience any pain in your ankle while walking? If yes				
	a. Right side				
	b. Left side				
77.	Have you experienced pain in your ankle while sitting in a squatting position? If yes, then				
	a. Right side				
	b. Left side				
78.	Do you experience pain in your ankle while running? If yes, then				
	a. Right side				
	b. Left side				
79.	Do you experience pain in your ankle while lifting the marble slab? If yes, then mention				
	• Overhead				
	a. Right side				
	b. Left side				
	• Chest level				
	a. Right side				
	b. Left side				
	• Below chest				
	a. Right side				
	b. Left side				
	• While keeping the marble slab on a surface				
	a. Right side				
	b. Left side				
	• While carrying the marble slab				
	a. Right side				
	b. Left side				
80.	Do you experience pain in the ankle while resting?				
	a. Right side				
	b. Left side				
81.	Do you experience pain while standing still?				
	a. Right side				
	b. Left side				
82.	Do you feel any pain while standing to sitting? If yes then which side?				

	c. Right side				
	d. Left side				
83.	Do you feel any pain while sitting to standing? If yes then which side?				
	c. Right side				
	d. Left side				
84.	Does the pain in the ankle affect your daily activities?				

SECTION 6

Data on physiological cost of work and perceived fatigue of the respondents

14. Physiological cost of work

Working Heart Rate			
1 st Reading	2 nd Reading	3 rd Reading	Average

Section 7

15. Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

Sr. No	Statements	Not at all (0)	A little bit (1)	Somewhat (2)	Quite a bit (3)	Very much (4)
1	I feel fatigued					
2	I feel weak all over					
3	I feel listless (washed out)					
4	I feel tired					
5	I have trouble starting things because I am tired					
6	I have trouble finishing things because I am tired					
7	I have energy					
8	I am able to do my usual activities					
9	I need to sleep during the day					
10	I am too tired to eat					
11	I need help doing my usual activities					
12	I am frustrated by being too tired to do the things I want to do					
13	I have to limit my social activity because I am tired					

Body Map used for collecting data on Perceived Musculoskeletal Pain



