



Mechanical Engineering Department

Academic Year: 2019-20	Class: B.E. (A)
Semester: II	Date: 24/02/2020
Course Outcome: CO2	Programme Outcome: PO1,PO9,PO12

Innovative Teaching Method

Title of Innovative teaching method: Industry Based Case Study on “Productivity Improvement by Using Method Study in Automobile Industry” to understand Method Study.

1. **Name of faculty:** Mr. R. B. Jagtap
2. **Subject:** Industrial Engineering (C409B)
3. **Objective of method:**
 - i. To understand method study and cost benefit analysis by increase in profit per year
 - ii. To describe the use of method study for productivity improvement of an automobile industry
4. **Topic covered through activity:** Method study
5. **Description of method with benefits:**

Faculty member has explained the definition, objective, and scope of method study. How to solve identified problems by using method study principles has been demonstrated by the faculty member in the class room with a case study. Quiz is conducted by Testmoz on the present topic to assess the topic understanding.

Benefits of method:

- Students can learn better from such examples
- It helps students to understand the practical aspects of topic

Roles and responsibilities:

Teacher

- Prepare presentation on the present topic
- Develop the awareness among the students about the use of method study in industrial applications
- Provide the study material and appropriate guide lines at every stage to the students
- Prepare assessment methodology

Student

- Learn the present topic and go through the presentation material
- Understand the practical aspects of topic
- Answer the questions asked in Quiz by using Testmoz (<http://testmoz.com/2483549>)

6. Assessment tools:

Quiz is conducted by using testmoz website (<http://testmoz.com/2483549>).

Questions of the Quiz and corresponding right options are as follows. Each question carries one mark. Maximum marks for the Quiz are 10.

Q. No.	Question
1	Work study involves
a	Only method study
b	Only work measurement
c	Method study and work measurement
d	Only motion study
	Correct option - c
2	What does symbol 'O' imply in work study?
a	Operation
b	Inspection
c	Transport
d	Delay/temporary storage
	Correct option - a
3	Micro motion study is
a	Analysis of a man-work method by using a motion picture camera with a timing device in the field of view
b	Motion study observed on enhanced time intervals
c	Motion study of a sequence of operations conducted systematically
d	Study of man and machine conducted simultaneously
	Correct option - a
4	The purpose of micro-motion study is to
a	Assist in finding out the most efficient way of doing work
b	Train the individual operator regarding the motion economy principles
c	Help in collecting the motion time data for synthetic time standards
d	All of the above
	Correct option - d
5	Travel charts provide
a	An idea of the flow of materials at various stages
b	The information for changes required in rearranging material handling equipment
c	The information for changes required in rearranging material handling equipment
d	An approximate estimate of the handling which must be done at a particular station
	Correct option - b
6	Percent idle time for men or machines is found by
a	Work sampling
b	Time study
c	Method study
d	Work study
	Correct option - a

7	Time study is carried out
a	By finding all the significant informations regarding the job, work place and machine tool etc
b	By breaking up each operation into small elements which are measurable with the help of the measuring device accurately
c	By observing and recording the time taken by the operator for an operation
d	All of the above
	Correct option - d
8	Motion study involves analysis of
a	Actions of operator
b	Layout of work place
c	Tooling and equipment
d	All of the above
	Correct option – a
9	Motion study involves analysis of
a	Actions of operator
b	Layout of work place
c	Tooling and equipment
d	All of the above
	Correct option - a
10	Time study is carried out to determine the time required to complete job by
a	A slow worker
b	A fast worker
c	A skilled worker
d	An apprentice
	Correct option - c

31	Dalavi Ganesh Rajendra	10	1	1	1	1	1	1	1	1	1	1
32	Suyog Mahesh Dandge	10	1	1	1	1	1	1	1	1	1	1
33	Apurva Danej	10	1	1	1	1	1	1	1	1	1	1
34	Jayesh Krishna Deore	9	1	1	1	0	1	1	1	1	1	1
35	Sanket Prakash Deore	8	1	1	1	1	0	1	1	1	1	0
36	Desale Dipak Rajendra	AB										
37	Siddhi Shyamrao Deshmukh	10	1	1	1	1	1	1	1	1	1	1
38	Deshpande Nikhil Pradeep	10	1	1	1	1	1	1	1	1	1	1
39	Dharmashale Pooja Rushikesh	AB										
41	Abhishek Dhondge	10	1	1	1	1	1	1	1	1	1	1
42	Gaidhani Atharva Satish	10	1	1	1	1	1	1	1	1	1	1
43	Roshani Nandkishor Gaikwad	10	1	1	1	1	1	1	1	1	1	1
44	Shantanu Garad	6	1	1	1	1	0	0	1	0	0	1
45	Kumar Gautam Rajiv	AB										
46	Gharate Harashada Pramod	8	1	1	0	1	1	1	0	1	1	1
47	Ghule Shubham Gorakshanath	AB										
48	Gite Darshan Baban	10	1	1	1	1	1	1	1	1	1	1
49	Shubham Abaji Gite	10	1	1	1	1	1	1	1	1	1	1
50	Godse Samrudhi Sanjay	4	1	1	0	0	0	0	1	0	0	1
51	Dipali Gunjal	10	1	1	1	1	1	1	1	1	1	1
52	Sourav Gunjal	10	1	1	1	1	1	1	1	1	1	1
53	Chaitanya N Hake	10	1	1	1	1	1	1	1	1	1	1
54	Hemant	7	1	1	1	1	0	1	1	0	0	1
55	Aniket Hiray	10	1	1	1	1	1	1	1	1	1	1
56	Shubham Vijay Ikhe	10	1	1	1	1	1	1	1	1	1	1
57	Ashish Jadhav	3	1	1	0	0	0	1	0	0	0	0

8. Activity Picture

Names	Score	Started On	Finished On	Time	1	2	3	4	5	6	7	8	9	10
01 Arsha Ashok Aher	100% (10/10)	2020-08-25 3:18 PM	2020-08-25 3:21 PM	0:03:17	94%	92%	70%	85%	75%	80%	89%	75%	75%	91%
02 Dhiraj B. Ahire	100% (10/10)	2020-02-24 11:54 AM	2020-02-24 11:56 AM	0:01:17	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
03 Ajay kumar	90% (9/10)	2020-08-25 8:56 PM	2020-08-25 9:00 PM	0:04:01	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
04 Deepak Pravin Attarte	100% (10/10)	2020-02-24 5:18 PM	2020-02-24 5:21 PM	0:02:32	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
05 Akul Dandekar	100% (10/10)	2020-02-24 5:55 PM	2020-02-24 5:57 PM	0:01:46	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
06 IGS	90% (9/10)	2020-08-27 8:23 AM	2020-08-27 8:26 AM	0:03:23	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
07 Divyesh K. Badgaonkar	100% (10/10)	2020-08-25 4:37 PM	2020-08-25 4:40 PM	0:03:17	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
08 SONAWANE ANAGH VILAS	100% (10/10)	2020-02-24 10:41 AM	2020-02-24 10:44 AM	0:02:21	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
09 Yash Chandra Kant Bapat	100% (10/10)	2020-02-24 4:29 PM	2020-02-24 4:30 PM	0:01:53	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10 Aniket Bhatnagar	60% (6/10)	2020-08-25 3:54 PM	2020-08-25 3:54 PM	0:00:35	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗
11 Divya Ananda Bhatnagar	100% (10/10)	2020-02-24 10:58 AM	2020-02-24 11:03 AM	0:04:36	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12 Manoj Bhatnagar	70% (7/10)	2020-08-25 2:56 PM	2020-08-25 2:59 PM	0:02:36	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗
13 Bhuvan Bhatnagar	40% (4/10)	2020-08-25 2:46 PM	2020-08-25 2:50 PM	0:03:23	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
14 Ansh Chaudhari	100% (10/10)	2020-02-24 11:06 AM	2020-02-24 11:09 AM	0:03:12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15 IGS	80% (8/10)	2020-08-25 3:41 PM	2020-08-25 3:44 PM	0:02:43	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓
16 Ananya Dandekar	100% (10/10)	2020-02-28 8:46 PM	2020-02-28 8:48 PM	0:02:01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17 Sanket Prakash Dandekar	80% (8/10)	2020-02-24 10:58 AM	2020-02-24 11:01 AM	0:02:43	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗
18 SIDDHI SHYAMRAO DESHMUKH	100% (10/10)	2020-02-24 10:55 AM	2020-02-24 10:59 AM	0:02:58	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19 Abhishek Dhandekar	100% (10/10)	2020-02-24 8:59 PM	2020-02-24 9:02 PM	0:02:36	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

9. For review and critique contact: e-mail address of faculty and HOD
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