

## **INDUSTRY BASED TRAINING FOR TWO YEAR COLLEGE'S INSTRUCTORS IN TURKEY**

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### **Abstract**

The aim of this article is to provide information about industry based training program of Two Year College's instructors in Turkey. A co-operation protocol was signed by YOK (The Turkish Higher Education Council) and ISOV (The Foundation of Istanbul Chamber of Industry) on 27 February 1997.

Agreement protocol is aimed to develop relationship between two year colleges and Turkish industry. One of the items of the agreement protocol is to train the Two Year College's instructors for 15-30 days period in industry.

Industry based training program of Two Year College's instructors was started in 1999 and continued in 2000 and 2001 years.

166 instructors from 60 Two Year Colleges have participated industry based training program the evaluation sheets taken from instructors and employers have been evaluated by YOK-ISOV Executive Board and published official internet site of YOK-ISOV co-operation. The results are very affirmative and YOK-ISOV Executive Board decided to carry on industry based training program on the following years.

### **1. Introduction**

Turkey is bridge between Europe and Asia and has a vibrant young population of over 67 million people, Turkey's GNP was about US\$ 170 billion equivalent or about US\$ 2500 Per capita in 2002.[1]

Turkey is the world's 17 most industrialized nation. 15 million young people are student from basic education to university (including), 1,5 million young people attend to 73 university. There are 470 two year colleges and these colleges have about 246.000 students and 290 program in 2001-2002 education year[2]. Turkish government has spent US\$ 342 million to develop the Vocational and Technical Education (Formal and non formal) between 1984-1998). US\$ 160 million were used to improve and develop 32 Two Year Colleges by

presidency of and World Bank-Industrial Education Project. YOK-World Bank Industrial Education projects has been finished at the end of the 1997. An agreement was signed by YOK-ISOV to strengthen relationship between Two Year Colleges and Turkish Industry[3].

5150 instructors are working in 290 programs at the 490 Two Year Colleges in 2002. 80% of the instructors are working on vocational technical subjects and 20% of them are working on Turkish, History, Art, Sport, etc. subjects on Two Year College.

Significant developments have been provided by this program between Industry and Two-Year Colleges since 1999.

If the project continues with increasing the number of instructors, at least 50% of the instructors will have possibility get industry experience at the end of 10 years.

30 evaluation sheets have been prepared to evaluate the studies. The instructors and employers have filled up different evaluation sheets. General the evaluation is done by ISOV and YOK together at the end of program[4].

The results of the evaluations are announced from the internet site of ISOV, to the stakeholders of project (instructors, employers, two-year colleges, etc.)

166 instructors have participated to this program until 1999 to 2001. The total capacity provided by the employers is 194 and 88% are used but 12% of the capacity was not used because of various reasons such as earthquake and illness in 1999. The distribution of the capacity is organized by Executive Board of YOK-ISOV agreement protocol fairly and informed to the two-year colleges and industry based training places.

## 2. The Evaluation of The Industry Based Training Programme

166 instructors have participated to this program in July and September in 1999-2000-2001, and only in 2000 and 2001, the instructors have sent their evaluation reports. For that reason the 1999 static's information were not available[4].

**Table 1: The Participation of Instructors According to Years.**

Year	Provided Capacity	Used Capacity	Rate of Participation	Sender of evaluation reports	Rate of the Senders
1999	47	36	%77	31	%86
2000	94	78	%83	69	%88
2001	53	52	%98	52	%100
<b>Total</b>	<b>194</b>	<b>166</b>	<b>%86</b>	<b>152</b>	<b>%91</b>

### 3. The Academic Qualification of the Instructors

The 1999 statistics are not available and 2000 and 2001 are shown in Table 2 and Table 3.

**Table 2: Academic Qualification of the Instructors of Two Year Colleges**

<b>Year</b>	<b>Professor</b>	<b>Instructors (Ph Degree)</b>	<b>Instructors (Not Ph Degree)</b>	<b>Experts and Other</b>	<b>Total</b>
1999	-	-	-	-	-
2000	-	13	55	1	69
2001	-	6	45	1	52
<b>Total</b>	<b>-</b>	<b>19</b>	<b>100</b>	<b>2</b>	<b>121</b>

### 4. The Industry Experience of the Instructors

The Industry experience years of the instructors who have participated to the programme is shown below[4]:

**Table 3: The Industrial Experience of the Instructors.**

<b>Year</b>	<b>20 Years and More</b>	<b>15-19 Years</b>	<b>10-14 Years</b>	<b>5-9 Years</b>	<b>1-4 Years</b>	<b>Total</b>
2000	4	1	3	4	24	46
2001	6	1	4	7	16	24
<b>Total</b>	<b>10</b>	<b>2</b>	<b>7</b>	<b>11</b>	<b>40</b>	<b>70</b>

As it is shown in table 3 above 70 instructors of 130 have no industrial experiences.

**Table 4: The Academic Experience of the Instructors**

<b>Year</b>	<b>20 Years and More</b>	<b>15-19 Years</b>	<b>10-14 Years</b>	<b>5-9 Years</b>	<b>1-4 Years</b>	<b>Total</b>
2000	5	10	9	25	20	69
2001	6	1	13	19	13	52
<b>Total</b>	<b>11</b>	<b>11</b>	<b>22</b>	<b>44</b>	<b>33</b>	<b>121</b>

The comments of instructors about industry based training and the programme.

**Table 5: The General Appropriateness of the Selected Industry Based Training Places**

<b>Year</b>	<b>Appropriate</b>	<b>Partly Appropriate</b>	<b>Not Appropriate</b>
2000	27	21	4
2001	50	16	3
Total	77	37	7
Rate	%63	%31	%6

**Table 6: The Sufficiency of the Selected I.B.T<sup>(\*)</sup> for Training**

<b>Year</b>	<b>Sufficient</b>	<b>Partly Sufficient</b>	<b>Insufficient</b>	<b>No Comment</b>
2000	58	11	-	-
2001	44	7	-	1
Total	102	18	-	1
Rate	%84	%15	%0	%1

(\*) *I.B.T: Industry Based Training. Places.*

**Table 7: The Evaluation of the Training Program of the I.B.T.**

<b>Year</b>	<b>Sufficient</b>	<b>Partly Planned</b>	<b>Unplanned</b>
2000	41	18	10
2001	26	20	6
Total	67	38	16
Rate	%56	%31	%13

**Table 8: The Appropriateness of the Selected I.B.T. to the branch of instructors**

<b>Year</b>	<b>Appropriate</b>	<b>Partly Appropriate</b>	<b>Not Appropriate</b>
2000	38	25	6
2001	30	16	6
Total	68	41	12
Rate	%56	%34	%10

## 5. The Comments of Instructors about Industry Based Training Program

The general comments of the instructors are given below:

**Table 9. General Comments of Instructors participated program.**

Comments of Instructors	2000	2001	Total
I saw new technologies	45	27	72
I learnt how to use the new technologies	17	12	29
I developed new strategies	40	21	61
I understood the insufficiency of my theoretical knowledge for industry	4	4	8
I gained nothing	3	3	6
I believed the cooperation with industry to develop the education programs	60	33	93
I saw that our education programs are not appropriate for industry	8	5	13
I provided job opportunity for my students after their graduation	15	6	21
I provided industry based learning place for my present students	40	20	60
I helped to establish cooperation between my college and the company	8	3	11

## 6. Summary, Conclusion And Recommendation For Future

Technical and vocational teacher education must be analyzed in terms of the three possible models that are applied. The first is where appropriate people from industry who have been employed in their trade or profession for some years are selected for technical and vocational education teaching. These people have industry experience but no formal qualifications. They must be given pedagogical training and in some cases, formal technical qualifications. The second model is where concurrent training is offered to a person through which the person is

given the technical knowledge and skills needed for teaching, and the pedagogical training at the same time. These people lack industry experience and may find it difficult to make their teaching relevant to the real world of work. Further, they may find it difficult to keep their knowledge and skills up-to-date by obtaining some periods of work placement within a relevant occupation. The third model is where employees with some years of experience in a relevant work situation and who already have the necessary technical qualifications are brought into technical and vocational education teaching. These people primarily need pedagogical knowledge and skills to function as teachers. They may also have the advantage of gaining graduate status for further study. This third model was thoroughly endorsed by the International Round Table as the preferred model, and should be adopted, as far as is possible, around the world[5].

However, it was recognized that it is difficult to entice such people into teaching, given the low comparative wages with industry. It also had to be admitted that a significant number of such people who were well trained and who came into technical and vocational education teaching, often returned to industry or to the private sector of the technical and vocational education system. This resulted from their greater expertise and their capacity to share their knowledge and skills effectively within industry through their pedagogical development. Even though this may occur, it was felt that in the long term, this does have some benefit to technical and vocational education teaching as it creates real links between providers of technical and vocational education and industry itself.

In this context, the question should be debated as to what is really meant when we claim that technical and vocational education is losing valuable teachers to industry? Perhaps it might be considered that when people go back to industry, they are not really lost. Rather, it is a form of nation building. However, when people move out of the sector for which they were trained, they are lost in the sense that it requires a total training of someone else to prepare the person for that sector[6].

Increasing the Industry Experiences of instructors programme was accepted beneficial for both sides; two year colleges instructors and industry.

Turkey has generally second model instructors at Two Year College and therefore instructors need industry based training in 1999-2000 and 2001, the 82% percent of the capacity was used and 91% of the instructors have sent their evaluation sheets. The 85% of the participants have found the workplaces sufficient and 15% of them found partly sufficient.

In the year 2000 the instructors had participated to the given below computer programming (7), Computerized Accounting (5), Business Administration (2), Molding (2), Electricity (11), Electronics (9), Industrial Electronics (3), Telecommunication (4), Refrigeration-Air Conditioning (7), Civil Engineering (5), Office Management (2), Automotive (9), Ceramics (5), Import-Export (2), Instrumentation and Process Control Technologies (7), Mechanical Engineering (13), Printing and Business (1).

In the 2001, they have participated in Mechanical Engineering (17), Accounting (5), Electronics (13), Civil Engineering (6), Computer Science (7) and Tourism and Hotel Management (1).

44 firms in 2000, 27 firms in 2001 have supported industry based training programme for Two Year College's instructors.

If necessary finance is supported, at least 250 instructors can participate to this programme in every summer in the fields of Türkiye's initial needs. One of the basic aim of the YOK-ISOV cooperation is training higher technicians who have the sufficient qualifications for Türkiye and global economy with finding international partners and adding the international experiences to industry based training activities on next years[7,8].

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