

## **EXECUTIVE SUMMARY**

The Dual Training System was enacted into law by the Philippine government in 1994 through the Republic Act 7686, which aims to increase the TVET educational institutions' responsiveness to the demands of the industry by combining in-plant training and in-school theoretical instructions.

The study locale, Systems Plus College Foundation (SPCF) initially implemented the DTS in its two-year Computer Technician program. The school institutionalized the Industrial Relations Office to oversee the integrated institutional-wide program of the DTS and to establish communication and rapport between the school and the industries.

However, out of the 43 computer technician students, only 14 (32.5%) were able to have their training in the industry. This is rather low, considering the fact that SPCF is located near the Clark Special Economic Zone (CZES), which is the central hub for business, industry, aviation and tourism in the northern part of the Philippines. This situation was instigated by the following reasons:

1. The unavailability of industries that will match the computer technician occupational profile.
2. There are only a small fraction of industries that are willing to accept DTS trainees.
3. The weak economy that results in the industries' less inclination to invest in vocational education and training.
4. The DTS is not embedded within the structural organization or with the day-to-day work of most of the industries.
5. The lack of support of some of the school's employees in the system's implementation.
6. The inadequate role of TESDA in strengthening the linkages of the educational institution and the industries.

To solve these problems, strategies were formulated with the goal of increasing the participation of the industries in technical and vocational education and training, therefore, making the DTS more sustainable. These are:

1. Surveying the local labor market demand to improve the matching of the school's courses with the most demanded occupations of the industries.
2. Implementing the changes in the school, which were brought about by the implementation of the DTS.
3. Promoting the system expansively and strategically to the potential industry partners and linking the school with organizations of companies.
4. Increasing the incentives of the industries through supplemental inducements like advertising and image-building programs for the school's partners.
5. Developing the training plan and encouraging the extensive participation of the expert workers of the enterprises in doing so.
6. Establishing a DTS Development and Planning Committee comprising of representatives from the system's key stakeholders.

The strategies that were developed are integrated in the list of the proposed activities, in preparation for the full implementation of the Dual Training System at Systems Plus College Foundation on the second semester of the academic year 2005-2006.

## INTRODUCTION

The Dual Training System is a mode of training delivery that combines theoretical and practical training. It is called "Dual" because the training happens in two (2) venues - the school and the company. In most of the models, the student-trainee is in school once every week while the rest of the days of the week he works and trains in the company. For the program to succeed, it entails strong cooperation between the school and companies. And for it to be sustained, in-company training places should be available.

Since DTS is still in its juvenile years in the Philippines, its schemes and structures are not yet embedded in educational institutions and industries, making its implementation difficult. Moreover, most enterprises in the Philippines believe that conducting in-plant trainings in their companies are additional expenses rather than investment, turning down most of the proposals for partnership with educational institutions in implementing the system. Without training places, the technical-vocational training in the dual system will not survive.

This is the main problem of the study, which the researcher attempts to resolve by devising action-oriented strategies to increase the prospects of an effective, efficient and sustainable dual training system for technical-vocational programs.

Chapter one talks about the background of the problem and the interrelationship of these conditions and concepts related to the problem. Information about the status of DTS on the national level and its legal framework are provided, as well as the study locale, Systems Plus College Foundation. Studies on the economic environment (enterprises) within the area are also emphasized, as well as the researcher's functions as the coordinator of the Industrial Relations Office of SPCF. The area of concern and the statement of the problem situation are once again highlighted.

Chapter two discusses the analysis of the problem, vis-à-vis the current situation like the present status of implementation, the reliance of the system's existence on the industry, resistances of the school's employees and the inadequate role of the government in the system's implementation.

Chapter three identifies the six key strategies for implementation in enhancing the sustainability and effectiveness of a dual system in technical-vocational courses. These are: 1) Surveying the labor market demands, 2) Implementing change, 3) Promotion and networking, 4) Increasing industry incentives, 5) Developing the training plan and 6) Establishing a DTS Development and Planning Committee.

And lastly, the Conclusion utters the statement of the findings of the study and analyses the strategies' concerted effects with regards to the system's sustainability; and the Recommendation provides practical suggestions for the implementation of these strategies.

# **1. THE PROBLEM AND ITS SETTING**

## **1.1. DTS IN THE PHILIPPINES**

In an effort to enhance educational access, quality and responsiveness to the needs of the industry by the Technical-Vocational Education and Training (TVET) in the country, the Philippines' Republic Act 7686 or the Dual Training System Act of 1994 was enacted. It is now the legal framework of the DTS in the Philippines. By and large, the law adopted the German DTS model, although some concepts were revised to suit the culture and educational structure of the country.

It was signed into law on February 25, 1994, which aims to strengthen manpower education and training in the Philippines by institutionalizing the DTS as an instructional delivery system of TVET, which combines in-plant training and in-school training based on a training plan collaboratively designed and implemented by an accredited dual system establishment and an educational institution (Cp. Section 4, paragraph B, DTS Act).

Under the system, establishments and educational institutions share the responsibility of providing the trainee with the best possible job qualifications, the former essentially through practical training and the latter by securing an adequate level of specific general occupations-related theoretical instruction.

The government entity responsible for planning, setting of standards, coordination, monitoring and allocation of resources in support of the implementation of the system, is the Technical Education Skills and Development Authority (TESDA).

Also, under the Implementing Rules and Regulations (IRR) of the Act, both the educational institutions and the employers have to be accredited by TESDA prior to the implementation of DTS. This is to ensure quality training and prevent abuses in program implementation.

After ten years since the Dual Training System Act was ratified, it continues to operate on a fairly small scale. The uncertainty of its sustainability remains to be the issue of the DTS in the Philippines.

## **1.2. STUDY LOCALE: SYSTEMS PLUS COLLEGE FOUNDATION**

Systems Plus, Incorporated was organized in Balibago, Angeles City, Philippines on June 27, 1985. Its primary purpose was to conduct seminars for those who are planning to enter the electronic data processing fields as programmers, encoders and systems analysts.

It started tutorial programs for students and professionals with less than ten enrollees. A year later, it offered TVET courses in electronic service technician, computer technician, computer secretarial and computer science. Although these courses were designed for the purpose of meeting the demands of the industry, efforts by the school to collaborate with the enterprises were not successful.

The clamor of students for the associate courses led to the opening of the Bachelor of Science in Computer Science in 1991. Other bachelor courses were also opened like BS in Computer Engineering and Business Administration. This is the same year when the school was renamed Systems Plus Institute Foundation, an educational institution offering technical and baccalaureate courses specializing in computer education.

By this time, the school has already integrated the traditional concept of On-the-Job training system for all its TVET and baccalaureate programs. The system characterizes short-term training of students in an establishment, without training regulations or formal agreements between the school and the participating industry.

The model of a Dualized Training System was introduced to the school by the German Development Service (DED) in April 2003. The DED (Deutscher Entwicklungsdienst) is a non-profit-making public limited company owned jointly by the Federal Republic of Germany and the working group “Learning and Helping Overseas” – an association of private German organizations engaged in personnel development aid, extracurricular education and youth programmes. A German development worker from DED was appointed to the school. His main roles were to introduce the DTS in the school’s administration and faculty and to train decision makers and implementers of the system for the effective and efficient execution of a dualized training system in baccalaureate and TVET programs, piloting the two-year computer technician.

On June 2004, the name of the school was changed to Systems Plus College Foundation, offering not just computer-related programs but other courses in different fields, as well. By this time, intensive efforts are being done by the school to collaborate with prospective partner industries, vis-à-vis the DTS implementation on its pilot program, the two-year computer technician course.

### **1.3. THE PILOT DTS PROGRAM: 2-YEAR COMPUTER TECHNICIAN**

In providing direction to any project, especially if it requires changing the existing methodology or system, piloting a program is necessary. It gives direction to the over all strategy of the program since the initial phase will be concentrating on a small component only. All feedbacks and evaluation outputs during the pilot testing can then be used to improve the project's implementation on a larger scale.

Aware of this need, Systems Plus College Foundation has decided to initially implement the Dual Training System on one of its flagship TVET course, the two-year computer technician.

The Computer Technician program prepares the students for a career with a foundation in computer and electronics. Before DTS, the students learn the theory in the classroom and then move on the laboratory for study of its practical application.

Then, upon completion of the course and graduation, the students may pursue employment as an entry-level technician in the electronics industry. This might include such works like installation, operation, servicing, maintenance, and troubleshooting of electronics equipment to include computers, word processors, electronics copiers, telecommunications equipment, instruments, audio visual products, etc.

The soft implementation of the DTS for the computer technician program was carried out on August 2004. However, out of the 43 computer technician students, only 14 (32.5%) were able to have their training in the industry.

#### **1.4. THE ECONOMIC ENVIRONMENT**

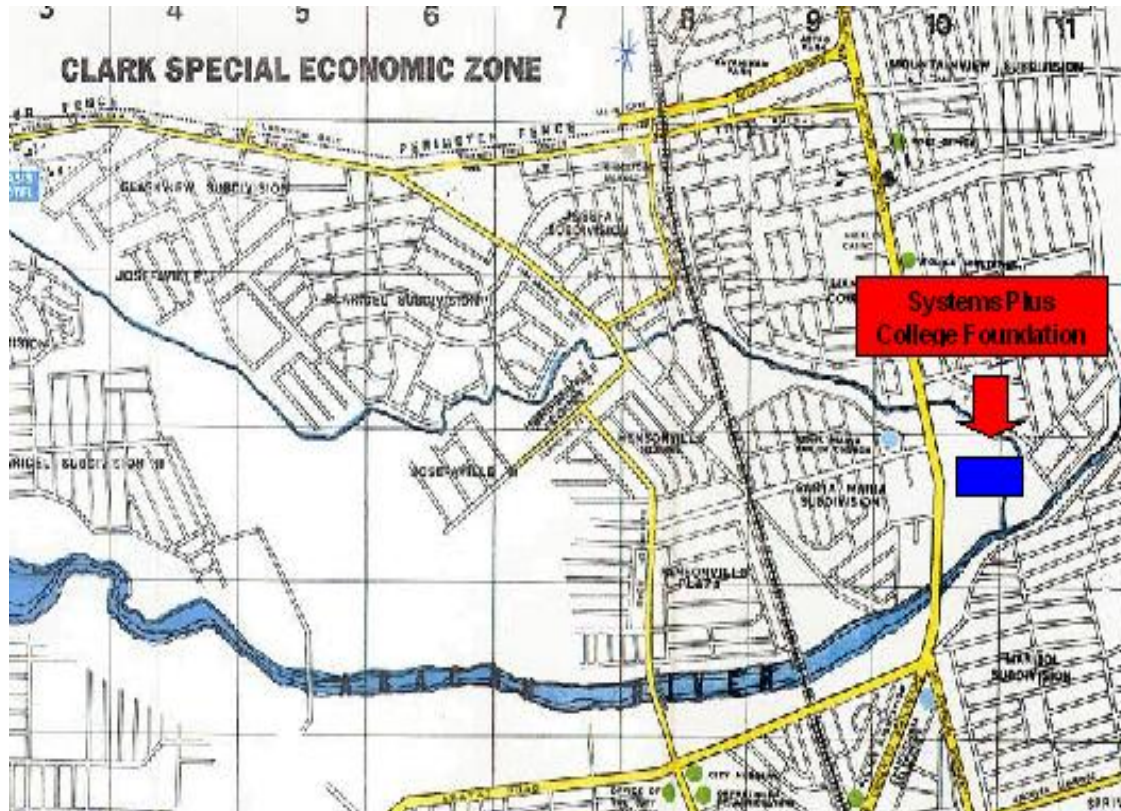
Systems Plus College Foundation lies in the heart of Angeles City. The metropolis is a chartered city located in the Pampanga province, within Region III. It is about 80 kilometers north of the capital Manila. For decades, it is the home of the former Clark US Air Force Base, residence to American pilots serving in the Pacific. But in 1992, the last of the US military bases were handed over to the Philippine Government and the US presence in the Philippines ended. This event has enormously affected the economic situation in Angeles City.

However, today, with the pilots long gone, the Clark Special Economic Zone (CSEZ) is in its initial phase of setting out to become the hub for business, industry, aviation, and tourism in the Philippines as well as the entertainment and gaming centre of Asia. Due to its fiscal and non-fiscal incentives, the zone attracts local and foreign investors engaged primarily in information and communication technology, electronics and semi conductors production, aviation support, commercial trading, agro-industrial and other sectors. Almost the size of Singapore, the CSEZ occupies more than 28,000 hectares (Online: <http://www.clark.com.ph/business.asp>, July 22, 2004).

The Systems Plus College Foundation wants to take advantage of this situation, thru collaboration and cooperation with the industries located within CSEZ. This might be an advantage for the school, especially since it is on the process of laying its foundation in the implementation of the Dual Training System. The school is aware that the more partner industries they have, the greater the possibility of the DTS being successful as far as effective, efficient and sustained execution is concerned. This is the reason for the rigorous efforts of SPCF to establish networks with the industries within Angeles City, particularly inside the Clark Special Economic Zone. The map below shows the location of the school and the CSEZ:



Figure 1: CSEZ and SPCF



Source (Online): <http://www.whoa.org/publications/maps.com>, July 23, 2004

### 1.5. THE INDUSTRIAL RELATIONS OFFICE: Its Functions

Section 7 of the Republic Act 7686 or the Dual Training System Act of 1994 states that “ *Every accredited educational institution/training center shall supervise the in-plant training: provided that the industrial establishment shall be required to furnish the educational institution with the necessary information for the supervision.*” (Paragraph 2).

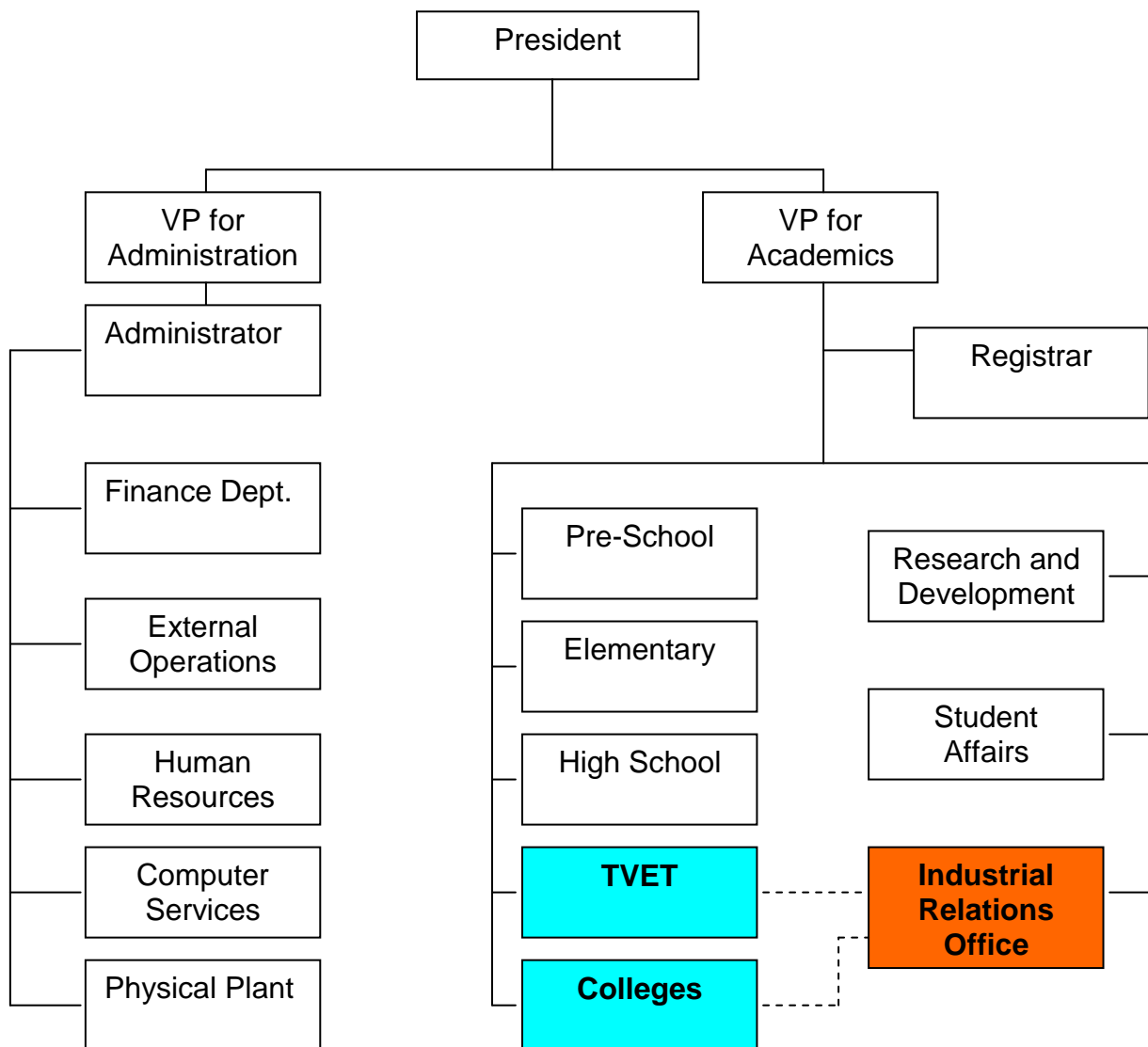
Furthermore, it states, “*The industrial coordinating office shall be headed by an industrial coordinator with at least an officer-level rank. The industrial coordinator may be assisted by such other personnel as may be necessary for the effective discharge of the functions of the office.*” (Paragraph 3).

The Industrial Relations Office of Systems Plus College Foundation (SPCF) was institutionalized in June 2003 with two main functions: 1) To establish communication and rapport between the school and the industrial

environment within the area and; 2) To oversee the integrated institutional-wide program of Dual Training System.

The organizational structure of the SPCF, emphasizing the connection of the Industrial Relations Office to various integral components of the school is illustrated below:

*Figure 2: SYSTEMS PLUS COLLEGE FOUNDATION- Organizational Structure*



*Source: SPCF-IRO Handbook*

The Industrial Relations Office, through its industrial coordinator, works closely with the various departments under TVET and Baccalaureate programs, specifically to assist the deans and heads in developing their curriculums into a

more “dualized” approach. Inputs from active and prospective industry partners are given importance in carrying out this activity.

The duties and responsibilities of the Industrial Coordinator is recapitulated below:

1. Establishes communication and rapport between the school and the industrial environment within the area.
2. Oversees an integrated institutional-wide program of Dual Training System.
3. Designs a master plan for the DTS program of the College/TVET.
4. Assists the Department Heads in the design of the program curriculum integrating DTS.
5. Initiates the implementation and evaluation of particular activities and projects related to the DTS program agenda of the College/TVET.
6. Calls and presides meetings related to the DTS program of the College/TVET.
7. Assists in the formulation of the training plan of the trainees in the school and the actual work exercises to be done in the workplace.
8. Identifies and coordinates with the companies/industries where the trainees will be having their in-plant training.
9. Monitors the performance of the trainees in the workplace and makes sure that the right skills are learned according to the training plan.
10. Coordinates with the department heads of the school and informs them of the development of their students undergoing the in-plant training.
11. Prepares a budget proposal for each activity relating to DTS program indicating sources.
12. Prepares the accomplishment reports of every activities/projects related to DTS program.
13. Initiates the signing of the agreement by all parties concerned including the trainee’s parent or guardian.

#### **1.6. STATEMENT OF THE PROBLEM**

Training is necessary for every country’s national development. It enhances productivity and can make any country compete successfully in an era of rapid economic and technological change (CP. Mainstreaming Technical

Education and Skills Development, 1998). It is therefore crucial for any educational institution offering technical and vocational programs to provide training if they want their students to have an active contribution in the country's national development.

However, there was a problem on the quality of training being provided by most TVET institutions in the Philippines (before the Dual Training System was introduced). The traditional On-the-Job trainings are not sufficient enough to ensure that its trainees can really have an experience of the actual work setting in the industries.

This is the rationale behind the adoption of the DTS as the TVET's modality of instructions. The conduct of the trainings in the industries will increase the quality and the students' responsiveness to the demands of the labor market.

Systems Plus College Foundation, in its efforts to enhance educational access and excellence, implemented the DTS initially in its 2-year computer technician program. Since the school has institutionalized the Industrial Relations Office, which is in-charge of the over-all operation of the DTS and the linkage of the school to the industrial environment; and considering its location, which is in close proximity to one of the country's top economic zones, the implementation of the DTS should have been easy.

However, there still exists a problem on the uncertainty in sustaining the system. Industries view the DTS as an additional expense, which in turn made them reject most of the proposals of the school for partnership. Without the support of the industries, the system will not survive.

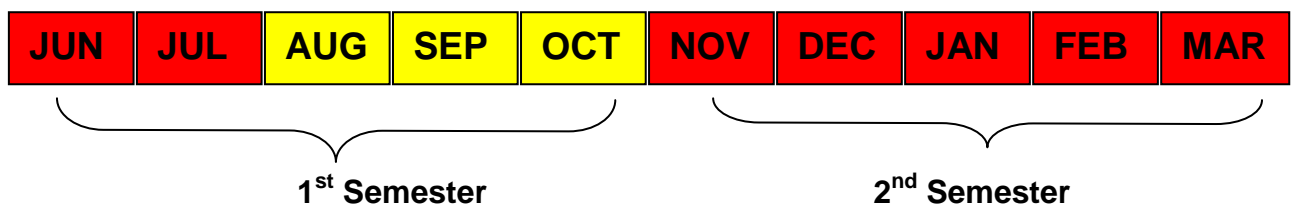
## 2. PROBLEM ANALYSIS

### 2.1. THE IMPLEMENTATION STATUS

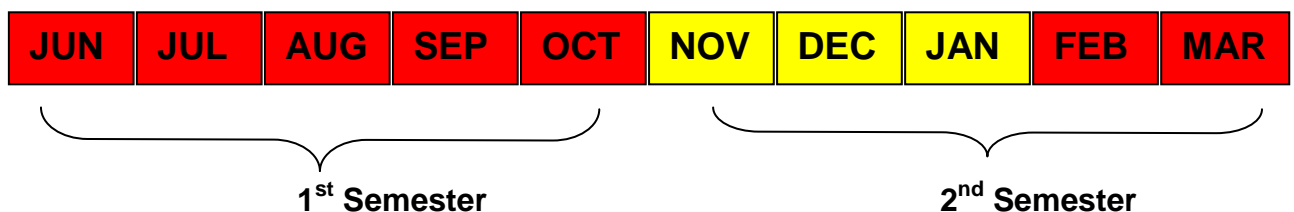
Systems Plus College Foundation has initially implement the Dual Training System in the two-year computer technician course, particularly on its second year students. The curriculum was already revised since last year to accommodate the integration of the DTS in the program. The sophomores were divided into two sections, comprising of 23 and 20 students each. These two sections were also divided into batches, where the first section/batch will have their in-plant training during the first semester of the school year and the second section/batch on the subsequent semester of the same year. This can be further illustrated below:

*Figure 3: The proposed schedule of classroom and in-plant trainings*

#### **1<sup>st</sup> Batch:**



#### **2<sup>nd</sup> Batch:**



LEGEND:



- Classroom/ Theoretical Inputs



- In-plant Training

*Source: IRO Files*

The preparation prior to the actual implementation of the system is actually the most challenging phase of the project, since it includes the activities of disseminating, promoting and convincing the decision makers of few computer-related enterprises within the area, which barely have an idea on the concept of DTS. This phase is also the most critical stage of the operation of the DTS, since the number of students who can avail of the system depends on the number of demands from the enterprises accepting the trainees. Unlike in Germany, where most of the responsibility lies on the state governments and the students themselves in finding training places; in the Philippines, majority of the responsibilities are on the private educational institutions.

The soft implementation of the DTS, which is supposed to be carried out for the purpose of preparing the school and partner industries in the system's actual and full implementation for the academic year 2005-06, was not a success since the school only managed to find in-company training places for only a minimal number of students. One reason for this is the unavailability of enterprises that will match the computer technician job profile. Most of the large industries within the area are not related to this occupation. Only small computer shops (engaged in computer repairing, software installation, etc.) are interested in accepting trainees from this course.

## **2.2. INDUSTRY RELIANCE**

The Dual Training System's survival relies on the availability of training places. But even in Germany, the number of vocational training places offered by employers declined, particularly in the year 2002. According to figures, training places offered by German firms has fallen significantly (by 7.3% over a year) and 137,000 young people are still looking for an apprenticeship (Cp. Federal Employment Service, 2003). This is a proof that even a country that is entrenched with the DTS culture in its vocational training, does not guarantee immunity from these problems.

In the Philippines, the situation is much more challenging. One major factor on the reason why the country's DTS is implementing only on a small scale is that there are only a diminutive percentage of enterprises that is willing to accept trainees, or worst, some even have no knowledge at all about the system.

SPCF's experiences (particularly the Industrial Relations Office) with regards to promoting the DTS to various enterprises were not encouraging at all. Prospective industry partners were visited for information dissemination and promotion of DTS. The table below shows the name of companies visited since September 2003 and their corresponding feedbacks after the visit:

*Table 1: Companies visited by SPCF since September 2003*

<b>Name of Company</b>	<b>Category</b>	<b>Date Visited</b>	<b>Remarks</b>
Du San Philippines, Inc.	Semi conductors	September 9, 2003	<i>Open for DTS but will only be accepting OJTs at present.</i>
Amerton, Inc.	Electronics/ semi conductor	September 16, 2003	<i>Not interested</i>
L &K Industries Philippines, Inc.	Electronics	September 19, 2003	<i>Accepts only female DTS trainees</i>
SMK Electronics, Philippines	Electronics	September 29, 2003	<i>Accepts only OJTs</i>
Nanox Philippines, Inc.	Electronics	September 30, 2003	<i>Not interested</i>
KEC-Astron	Electronics	September 30, 2003	<i>Accepts only OJTs</i>
Clarkton Hotels, Inc.	Services: hotel and restaurant	October 3, 2003	<i>Open for DTS (HRM dept. for DTS accreditation)</i>
Cyber City Teleservices LTD	Call center and telemarketing services	October 20, 2003	<i>Not interested</i>
Poongsan Microtec Philippines, Inc.	Semiconductors	October 21, 2003	<i>Not interested</i>
Enigma Office Solutions	Computer shop services	June 18, 2004	<i>Not interested</i>
Savers Office Automation	Computer shop services	June 22, 2004	<i>Not interested</i>
Digiworx Computer and Office Solutions	Computer shop services	June 23, 2004	<i>Will be accepting DTS trainees (MOA to be signed)</i>

Source: IRO Files

Out of the twelve companies visited, only two have shown positive responses in accepting DTS trainees in their enterprises. These are: 1) The Clarkton Hotels, Inc. for Hotel and Restaurant Management Program and 2) Digiworx Computer and Office Solutions, for the two-year Computer Technician course. The implementation of the DTS for the HRM course will be carried out on the academic year 2005-06, after the hypothetical successful implementation of a dualized system under the Computer Technician program this year. But as mentioned in the early part of this chapter, there are not enough training places for the students of the pilot program, making its implementation unfeasible as of the moment.

One of the fundamental reasons for the lack of training places available is the weak economy as a result of which business enterprises are less inclined to invest in vocational education and training since such investments tend to pay off only in the medium term. Also, to the point of view of the enterprises, DTS is an additional expense. Although the Republic Act 7686 or the Dual Training System Act of 1994 provides fiscal incentives to the participating enterprises in the form of deductions from taxable income, they still believe that it is not enough to compensate the additional costs they have to give out for the training.

Moreover, the traditional On-the-Job Trainees acts as “competitors” to their counterpart trainees under the Dual Training System. Under the OJT system, the companies are not obliged to provide monetary allowances to the trainees; and neither training regulations nor contracts are binding the enterprises and the school. These factors made the on-the-job trainees more “marketable” in the industries than their counterparts in the DTS.

Lastly, the system of a dualized training is not embedded within the structural organization or with the day-to-day work of most of the enterprises. Unlike in Germany, where the DTS culture is deeply-rooted into its business establishments, companies in the Philippines are still not aware of the general concepts of DTS. Although the legal framework (RA 7686) was enacted ten years ago, it has not attained an adequate amount of acceptance within the industry and service sectors up to now. This makes it doubly hard for educational institutions to look for industry partners in implementing the DTS.



### **2.3. THE RESISTANCE TO CHANGE**

The success of the Dual Training System is based on cooperation between enterprises, the government and the educational institution. These partnerships must be founded on the principle of shared responsibility and willingness to acclimatize to the changes that the new system may bring. Schools in particular are dealing with a lot of people with traditional mindsets and comfort zones that were built over time, and implementing the DTS will mean shifting from these traditional methods to a different system, which is probably unknown to them. They are therefore forced to “step out” of the environment they are comfortable with. These problems related to the implementation of changes were experienced by SPCF.

From the year the school was established in 1985 up to the year before the DTS was introduced and implemented in June 2003, the school makes use of the traditional modality of instructions for its TVET programs. That is, education and training takes place in schools and is delivered by theoretical instructions. The students conduct their classes usually for four to five days a week. Meanwhile, laboratory activities are for the purpose of studying its practical application, but usually are being conducted only once a week. The dean or the department head is independently in charged of developing the curriculum, scheduling of classes and of the teachers, etc.

The enterprises have no direct involvement in the whole process, except through the on-the-job training, which is supposed to be aimed in giving the students opportunities to view the theories they learned in the academe in its actual use in the industrial set-up. But this system does not require the dean/department head or even the teachers to collaborate with these enterprises, since no training regulations are involved and no contracts or formal agreements are binding the school and the company.

It can be assumed that in the broad spectrum, resistances to the implementation of the DTS can be instigated from various causes. One of the major reasons is actually personal. Department heads and teachers resent the implied criticism that their traditional methods are wrong or inadequate, since a new method is being proposed. Also, they feared that their hard-earned skills will not be used and that decreased sense of worth will result. Some teachers have been traditionally teaching various technical/ vocational subjects for more

than five years already, and implementing a new scheme like DTS will require ample time for the teachers to become accustomed to the system.

Also, others have a “know-it-all” attitude. They believe that if they did not initiate the change, the system is wrong or useless. Others are also demanding independency and deemed that they perform more effective when unsupervised and given the prerogative to decide on the matters of implementing new systems under their respective departments. Moreover, they viewed the DTS as a system that has a potential to disrupt existing work and social relationships. They try to oppose changes to the traditional system because they thought that DTS is a threat to jeopardize their status, power, or authority or break up long established work teams.

Lastly, of the many causes of resistance to the DTS, the most obvious is economic. They thought that since the students will be spending most of their time in enterprises for their training, they fear they will lose their jobs, be demoted, or have their pay and benefits reduced. Their primary concern is their anxiety about the economic welfare of themselves and their families.

## **2.4. THE GOVERNMENT’S ROLE**

Since 1994, DTS is still operating on a relatively small-scale level. Of course, the major reason is the lack of industries’ support to the system resulting to the minimal number of training places available, which was already discussed in the preceding sections of this chapter. But another chief component of the DTS is the government itself, and underestimating its importance proves to be perilous. The legal framework is already available, but its extensive and effective implementation on a national level is still far from achieving success.

These can be verified by the comparison of school-based DTS and non-DTS graduates of TVET programs in the academic year 2002-03, where a significant difference between the two is very much apparent. The figures were illustrated through a graph and data were divided into the fifteen regions of the Philippines (excluding the National Capital Region):

## Graduates of TVET Programs: AY 2002-03

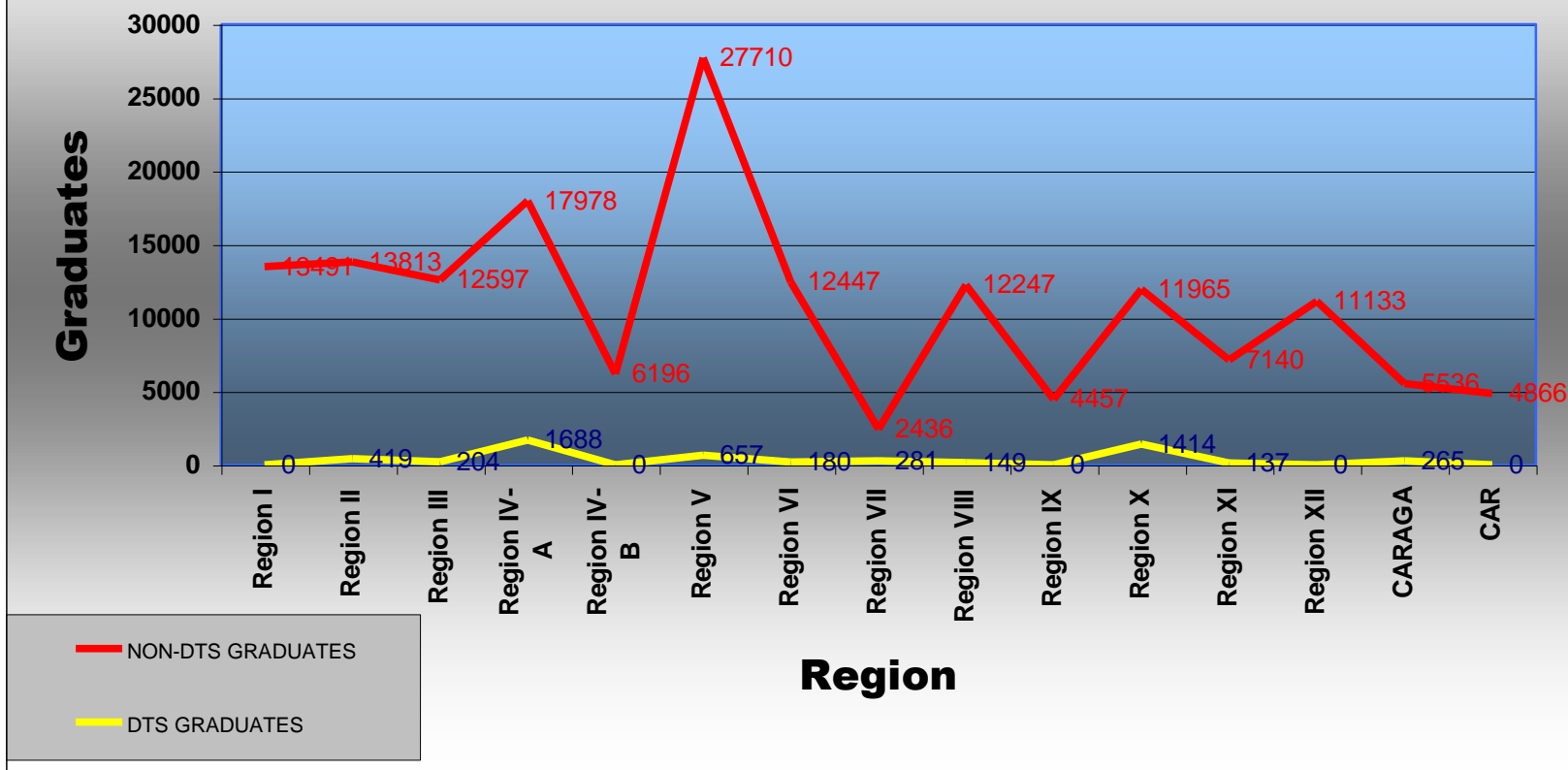


Figure 4: DTS and non-DTS Graduates AY2002-03

Source: TESDA Central Office, Manila

The government entity in-charge of the implementation of the Dual Training System Act of 1994 (RA 7686) is the Technical Education and Skills Development Authority (TESDA). It was structured also in the same year through Republic Act 7796, otherwise known as the TESDA Act of 1994. The DTS was enunciated in the TESDA Act, specifically in the following provisions:

- Section 2 of Rule VI states that TESDA shall promote straightened linkages between educational/training institutions and industry to ensure that appropriate skills and knowledge are provided by the educational system.
- Section 4 of Rule VI states that TESDA shall implement Republic Act 7686, or the Dual Training System Act of 1994 and lend support and encourage increasing utilization of the dual training system as provided for in the aforementioned.

Moreover, the Dual Training System Act of 1994 also stated the main function of the “appropriate authority” (TESDA) in section 7 of the RA7686:

- *Planning and coordination.* The appropriate authority shall plan, set standards, coordinate, monitor and allocate resources in support of the implementation of the system.

The researcher is not in the position to question the effectiveness of the DTS Act or even the whole Authority itself, since observations were done only on the TESDA provincial level. However, in line with the first provision stated above (Section 2 of Rule IV, TESDA Act), the Authority is tasked to promote linkages between educational institutions and industry for the implementation of the DTS. These statements are rather vague since it does not actually provide a clear and specific task, whether the Authority will initiate the linkage and search for industry training places for the schools’ trainees, or just merely “promoting the linkage”.

A study conducted by the Director of TESDA Region V states that the success in the implementation of the Dual Training System lies heavily in the hands of the Industrial Coordinator, which promotes the program to the community and specifically to the industries (Diaz, Improving the Industry Participation to the DTS in the Bicol Region). If this will be the frame of mind of all regional directors of the Authority, they will be placing most of the bulk of responsibility to the educational institution, particularly to its Industry

Coordinator, since the most critical phase of the DTS is its promotion to the prospective industry training places.

If comparison will be made between TESDA and the Federal Institute for Vocational Training (BIBB) in Germany, the former missed important tasks in relation to the promotion of DTS and the search for sufficient training places in the industrial sector. The BIBB is partially run by a board composed of representatives from societal forces that includes the employer's federation, which bears responsibility for in-plant vocational training. The board also serves as an avenue to promote the DTS to the employers, therefore helping to ensure that most of the young people will have the opportunity to undergo a dualized vocational training program. On the other hand, TESDA seems to be contented in operating on its own independent bureaucratic process, with a minimal effort to organize dialogues with one of the most critical components of the DTS: the enterprises.

### **3. STRATEGIES FOR SUSTAINABILITY**

#### **3.1. SURVEYING THE LOCAL LABOR MARKET DEMAND**

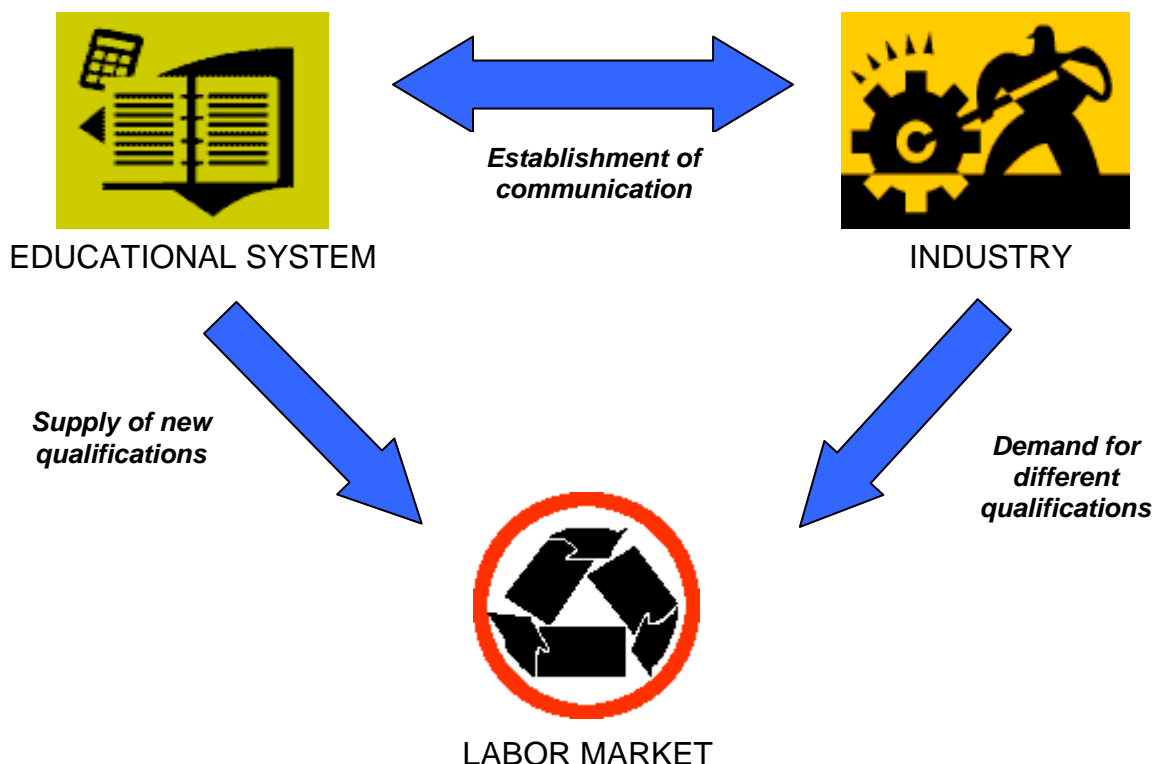
The sustainability of the Dual Training System greatly relies on the industries' participation in the program, particularly on the number of training slots that the company will be offering to the student-trainees. From the economic viewpoint of an employer, he needs to be convinced first that engaging his company and investing in the DTS will benefit him financially. Therefore, a company will not offer a training program in an occupation, wherein its trainees cannot be utilized as productive individuals, either at present or in the future. Consequently, an educational institution cannot expect a company to accept DTS trainees under a course, which is not related to the type of business the company is engaged in. Implementing a DTS in a course without consulting the employer's labor market demand will make the program difficult to be promoted and to be sustained.

This is what exactly transpired with the DTS of Systems Plus College Foundation (SPCF) when it decided to initially implement the system on one of its existing programs, the two-year computer technician. The unavailability of enterprises that will match the computer technician job profile was one of the greatest hindrances. Only small computer shops, with a very minimal number of slots available were interested in accepting trainees from this course, which is way below the number of the entire 2<sup>nd</sup> year computer technician students. The process was “program driven”, wherein the school decides which program they are going to offer to the enterprises, then attempts to find training places for its students, instead of a “demand driven” approach, where the school identifies which programs does the enterprises need and then structure it according to their preference.

Since the DTS existence is largely dependent on industry participation, it is important for any educational institution, which is implementing the system, to seek and acquire accurate and detailed local labor market information, before implementing DTS in any TVET program.

This can be further justified by the figure below, illustrating the interconnection of the Educational Institutions, the Industries and the Labor Markets:

Figure 5: Tripartite of Schools, Industry and the Labor Market



Source: Cp. Sommer, Manfred (2004) *Economics of Education*

Arguably, the biggest informational need is in identifying from most local companies, the occupations that have the largest number of demand from the labor market. From this information, the school can evaluate existing courses, or even plan for new courses. Moreover, by knowing which occupations are largely available, and proving it to be feasible based on the school's resources, DTS can be implemented in these demand-driven courses. This means that virtually all students will be assured of a training place that meets the needs not just of themselves, but also of the employers.

Another use of the survey is to improve the match between employer's demand for skilled trainees and the qualifications of the prevailing labor market. This can be another "selling point" for the DTS because with the information on hand, the school can develop its theoretical instructions, which can tailor to the needs of the employers, before they are fielded in their in-plant trainings.

The employee's turnover rate is also part of the survey. The rate will be calculated based on the company's annual vacancies, resulting from promotions or employees leaving the firm, divided by the total employees in a

particular occupation. This will provide the school with useful quantitative information on the company's scope to absorb trainees every year.

To achieve these, the researcher developed a standardized questionnaire based on two key informational needs: first is the present degree of the company's participation in training students either in DTS or on-the-job trainings, and second, information on the company's occupational demand (see appendix B). This questionnaire will be used to survey the companies within the locality. The questionnaire responses will be entered into a database and will be tabulated. From these tabulations, data will be analyzed. The final summaries and recommendations will be submitted to the school's top management. Occupations that are in-demand in the industries will be carefully evaluated based on the school's resources (teachers, facilities, etc.), and decide whether these courses are feasible for the school to open and be implemented under the DTS.

### **3.2. IMPLEMENTING CHANGE**

If an educational institution wants to effectively implement the Dual Training System, it must be able to overcome not only external barriers (e.g. the lack of training places), but also internal barriers, like the employees' resistance to changing the traditional system to that of the DTS.

This will justify the need for a "clear road map", which should be provided by the management of Systems Plus College Foundation, for its employees and even for its students, since they are actually the people whom will be directly affected by the implementation of the DTS. They would definitely want to know not only what is going to happen but also why the traditional state needs changing. Furthermore, the benefits of the Dual Training System must be thoroughly explained.

Moreover, SPCF must also build a climate where participation in the decision-making is encouraged. Department heads, and even some of its faculty members might want to participate in making decisions that affect them. The initial or planning phase of the Dual Training System must be done involving the "key players". This will motivate them to accept the system, and at



the same time, acquire inputs and attain a larger perspective on its implementation.

The change brought about by the implementation of the DTS requires the department heads and the faculty to unlearn the traditional modality of managing and teaching TVET programs. This is perhaps the most uncomfortable part of this effort. This is why there is a need to design a support system for them. Without the necessary support, the odds remain that they will be reluctant to accept the Dual Training System.

Lastly, the perception of the faculty members that they will lose most of their teaching hours, since students will be spending time in the companies must be overcome. The management must establish controls and give the teachers assurances that they will be protected from economic losses or decline in status due to the implementation of the DTS. This can also develop positive attitude towards DTS, to welcome it and accept it.

### **3.3. PROMOTION AND NETWORKING**

The Republic Act 7686 or the Dual Training System Act, which serves as the legal framework in the system's implementation on TVET institutions, was enacted only in 1994. Prior to its ratification, enterprises play a very minimal role (or no part at all) in the training of technical-vocational students in the Philippines. On the other hand, the whole concept of the DTS actually relies foremost on the extensive participation of the enterprises in training TVET students. This would mean that before the educational institution can expect the involvement of the enterprises in its DTS programs, a paradigm shift should occur first on the employers. This would entail immense effort on the part of the school, since they are actually responsible in the implementation of the system.

A paradigm shift in the enterprises can only occur if the employers can be convinced that the training costs they will be allotting to the program can be outweighed by the benefits they can gain, whether these are direct or indirect benefits. This is the purpose of promoting the system. The benefits that the employers can actually gain as a result of their participation in the DTS should be thoroughly clarified to them, in a very active manner. Like any new product in the market, the DTS needs first to have systematic promotional activities and

utilizable connections in the enterprises (its clients), before it becomes “saleable”.

### **3.3.1. Developing the Master Plan**

The Industry Coordinator is the head of the Industrial Coordinating Office of SPCF. His main function is to oversee an integrated institutional-wide program of the Dual Training System. Within this function, one of his most important roles is to promote the DTS to its prospective industry partners, and has to ensure that all students under DTS have designated training places.

To be able to do this, the Industry Coordinator must establish the goals, formulate the plan and schedule the promotional activities, at least six months prior to the opening of the next academic year. Goals and objectives must be result-oriented and specific to the target number of training places per occupation. Meanwhile, the companies that will be visited must be identified based from the survey conducted beforehand (*See Surveying the Labor Market Demand*). These companies will play a big part in the development of a master plan for the DTS promotional activities, wherein the time schedule of company visits/orientation, the deadlines and the means of measuring progress and accomplishments are included.

### **3.3.2. Strategies for Promotion**

From the economic standpoint of most of the employers, monetary benefits, which can be derived from the DTS, should outweigh its costs before they can be convinced to participate in the system. This is the reason why these benefits should be one of the major areas of discussion during company visits. Aside from the incentives stipulated in the Republic Act 7686, which allows them to deduct from their taxable income the amount of fifty percent of the system expenses paid to the partner school for their trainees, other direct and indirect benefits should be clearly discussed to the employers. These benefits can be categorized as benefits during and after trainings. Some of these are as follows:

#### *During Training*

- Benefits from the trainee’s productive work.
- Workers trained according to the company’s specific needs.

- Highly productive workers and therefore long-term growth and bigger profits.
- Proper work attitudes of trainees.
- Reputation gain for the company.

#### *After Training*

- Recruiting young employees who precisely meet company requirements.
- Recruiting specialists with high loyalty to the company.
- Recruiting the “best” trainees after their training.
- Saving training costs for specialists from outside the company.
- Saving on costs of searching for personnel on the labour market.

The need to emphasize the benefits of the system is imperative if the school wants to have an optimal result on their promotional efforts. They must treat the DTS as their “product” that needs to be advertised and eventually be demanded by its target “clients”, the enterprises.

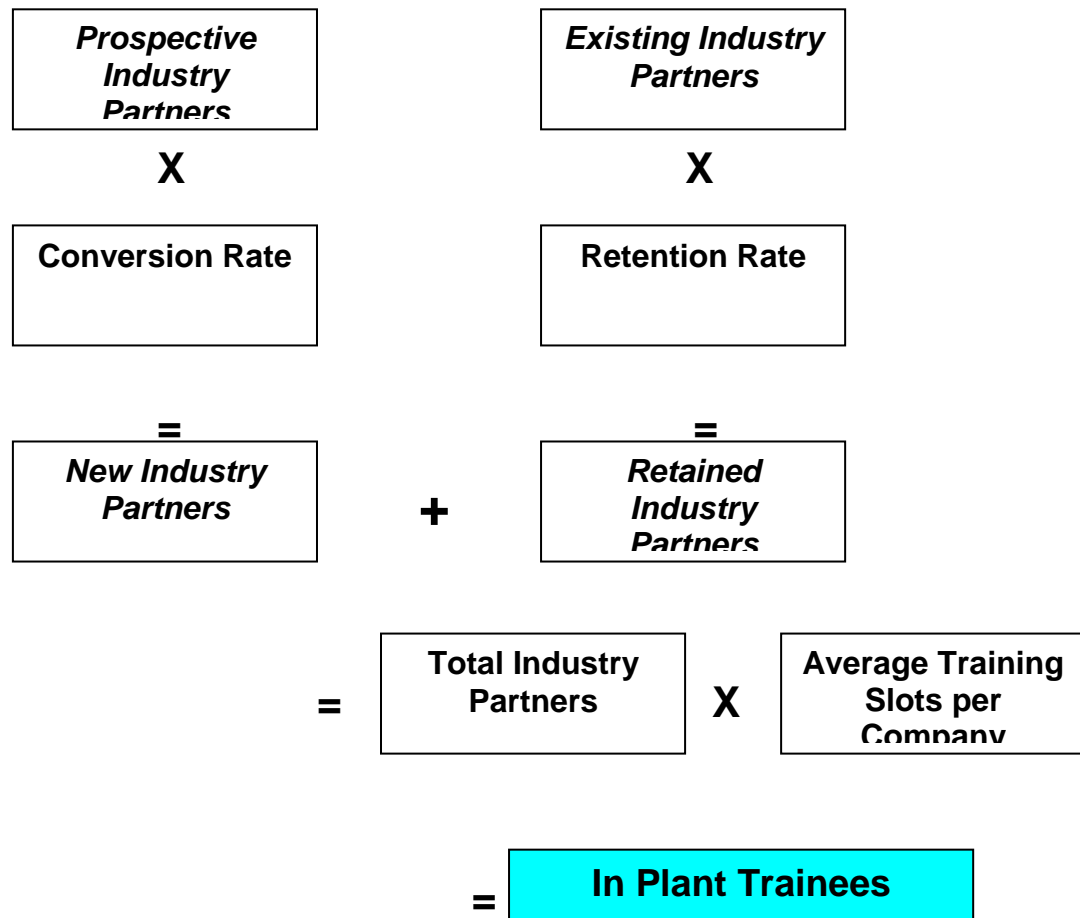
The principle of treating the system as the school’s “product” led to the researcher’s design of a simple model that will be used for the school’s promotional guidelines on their target enterprises and retention strategies on its existing industry partners.

In real terms, the available slots in the enterprises for its in-plant trainees under the DTS depends on the following factors:

1. The number of potential industry partners.
2. The ability to convert those prospects to partners.
3. The ability to hold on to existing (or past) industry partners.
4. The number of training slots per company.

Figure 6 illustrates the relationship of these factors with one another, and its effect on the number of in-plant trainees:

Figure 6: Promotional and Retention Model



This model will be the guiding principle in increasing the number of in-plant trainees by improving the performance of one or all of the factors indicated above. That is, the school must:

1. Generate more prospects or potential industry partners.
2. Convert more of those prospects to partners.
3. Hold on to more of the industry partners previously acquired.
4. Increase the number of training slots per company.

### 3.3.3. Expanding the Prospective Partners through Networking

Private sector leadership and cooperation is crucial for the Dual Training System for it to be a success. This is the reason why the school has to work hand-in-hand with groups or organizations of companies, which can help the school to widen its network of industrial training partners. Usually, these organizations have representatives coming from virtually every industry within

the local area. Linking SPCF with these organizations will boost up its DTS promotion.

Listed below are some of the organizations and government agencies within the local area, which the school should consider visiting:

- *Angeles City Chamber of Commerce*- A private non-government organization of employers within Angeles City, with members ranging from the largest corporations, to mid-sized businesses and to emerging entrepreneurs. The Chamber places special emphasis on its members working together with Council chairpersons to build better relationships and create effective programs that help its members and the industrial/business community. Making the organization participate in the DTS will have a “domino effect” among its members.
- *Clark Development Corporation (CDC)*- A government-owned and controlled corporation established in 1993 to operate, administer, lead-manage, and develop the Clark Special Economic Zone (CSEZ). It has control over policy formulation and supervision of all the companies within the CSEZ.
- *Rotary Club of Clark Centennial*- Comprised of local Filipino and expatriate businessmen within the economic zone of Angeles City. The organization is mainly involved in community development activities but also participates in activities, which contributes to the educational advancement of the youth. Also, their large databases of employers and the club’s influence on them are advantageous to the school’s DTS implementation.

### **3.4. INCREASING INDUSTRY INCENTIVES**

The Republic Act 7686 or the Dual Training System Act of 1994 states that *“To encourage agricultural, industrial and business establishments to participate in the system, they shall be allowed to deduct from their taxable income the amount of fifty (50) percent of the system expenses paid to the accredited dual training system educational institution for the establishment’s trainees”* (Section 9).

Normally, this incentive should be enough to motivate the enterprises to participate in the DTS, considering the fact that there are no financial

inducements being provided by the government of other DTS-implementing countries like Germany.

But since the system is still in its “infantile” years in the Philippines and largely needs the extensive participation of the industries to succeed, supplemental enticements, no matter how small, may prove to be valuable in contributing in the system’s success and sustainability.

### **3.4.1. Advertising and Image-building Campaign**

*Figure 7. A sample design of signage for partner industries*



It is a fact that participating in the DTS will entail additional costs on the part of the industry. This can somehow be compensated by SPCF by means of helping them build a positive image to its customers and clients.

A company image is an intangible item, but it's as important, if not more so, than the raw materials they make into a tangible product, machinery they use to make products or their product inventory. It can be the factor that can distinguish one company from its competitors, either positively or negatively.

The school can facilitate the development of a positive image for its industry partners by including the company names and logos in all of SPCF’s marketing communications, like brochures and advertisements. Also, large streamers and posters will be posted conspicuously within the vicinity of the school informing everyone that the companies listed have supported the Dual Training System of SPCF. Lastly, billboards, signage and other informational materials will be distributed to each partner companies with statements like

*“This Company Accepts and Supports Student Trainees” or “This Company Provides Quality Training for Students”.*

### **3.4.2. Patronizing the Partners’ Products and Services**

Another approach to increase the incentive of the prospective industry partners and consequently motivate them to participate in the DTS is by patronizing their products or services. The school may pledge its support to the enterprise after identifying its needed products or services that are available and can be provided by the partner company.

The two parties may sign a written agreement afterwards, with the mutual understanding that the school will be prioritizing its partner companies when it comes to its procurement of facilities, supplies and services, which are available from its partners.

A “win-win” situation is possible if the companies will also be giving incentives to the school in the form of discounts and other special privileges.

## **3.5. DEVELOPING THE TRAINING PLAN (The DACUM Approach)**

The sustainability of the Dual Training System can be further ensured if the enterprises will be given a substantial role not only during the training activities itself, but also on the design and development of the training plan for each particular occupation. This will give them a “sense of ownership”, which may eventually motivate them to participate continuously on the DTS.

This principle can be best applied using the DACUM (**Develop A Curriculum**) approach. It is an occupational skill profile which can be used for instructional program planning, curriculum development, training materials development, organizational restructuring, employee recruitment, training needs assessment, job descriptions and other purposes (Norton, The DACUM process).

But what is important is that by using this approach, expert workers from the enterprises will be the one designing and finalizing all the inputs in the training plan. This is so because one of the philosophies of the approach is that expert workers can describe and define their job more accurately than anyone else.

After the identification of industry partners and the classification of the programs under the DTS, the school should send invitation letters to the partner companies requesting the attendance of an experienced worker, who is considered the best in the field of the particular occupation (which is the subject of the DACUM). Each partner industry should have one representative and they will comprise the DACUM panel. It is important to note that representatives should not belong to the middle or top management levels.

A facilitator, preferably from the school, will lead the entire process, usually setting the mood and the pace of the panel and ensures that they know exactly what their tasks are and the delivery dates for all the parts of the DACUM chart.

The chart shall contain the list of general areas of competence called Duties and several Tasks for each duty. Brainstorming techniques will be used to obtain the collective expertise and consensus of the panel. The completed chart is a graphic profile of the duties and tasks performed by the representatives in the occupation.

The panel also identifies the general knowledge and skills required of successful trainees, the tools, equipment, supplies and materials. And lastly, it should also contain the length of period needed (in hours) for each task. It is important for the panel to keep in mind of the fixed duration of training in school and in company, based from what SPCF and its partners have agreed upon. This should guide them on the allotment of training time for each task.

A copy of the completed chart shall then be submitted to the Vice-president for Academic Affairs of SPCF and the managers and/or supervisors of the participating industry partners for comment. This will ensure that nothing is overlooked.

Once the validation process is completed, and the chart is approved by the school and its industry partners, it can now be adapted as the training plan.

### **3.6. ESTABLISHING A DTS DEVELOPMENT AND PLANNING COMMITTEE**

Sustainability refers to doing something with the long term in mind, wherein today's decisions are made with a consideration of sustaining the activities into the long-term future. To be able to achieve this, stakeholders must coordinate and combine their efforts in ensuring the sustainability of the Dual



Training System. They must organize themselves so that decisions being made today will not compromise, but even support the “durability” of the system in the future.

This is the reason why a DTS Development and Planning Committee is imperative to be established. One of its main duties is to analyze the current status of the DTS, which way it is going and how far it is from where it wants to be. This process will alert the implementers to a problem before it gets too complicated and helps them recognize what needs to be done to fix the problem. The committee also identifies the indicators of a sustainable DTS, giving much attention to areas where the links between the school, the enterprises and the government are weak. The committee categorizes the problem areas and plans to solve the problems.

SPCF’s DTS Development and Planning Committee is a forum for cooperation bringing together, on equal footing the representatives from the key stakeholders, which bear the responsibility for the school’s DTS implementation:

- The Industrial Coordinator of SPCF, acting as the facilitator of the Committee
- DED (Deutscher Entwicklungsdienst) Consultant
- A representative from the Technical Education and Skills Development Authority (TESDA) as appointed by the TESDA Provincial Director
- One representative from each of the partner industries as appointed by their respective employers
- One faculty representative from each of the accredited programs under DTS as appointed from among themselves
- One student representative from each of the accredited programs under DTS as elected from among themselves

The committee shall set up its own bylaw, which will determine the distribution of authority and decision-making responsibilities, and how those responsibilities should be carried out. The Bylaw should create a framework for the committee, and aid in resolving internal disputes.

It is advisable for the committee to meet at least twice a year, where the first meeting will be held four months prior to the opening of the school year, while the second meeting will be held one month after the students' in-plant training is concluded.

## **CONCLUSION**

The Dual Training System needs the broad participation of the enterprises for it to succeed. In-company training places must always be available for it to be sustained.

However, there are only a small percentage of enterprises that are willing to accept trainees. Various reasons can be attributed to this. One is the weak economy, which causes business enterprises to be less inclined to invest in vocational education and training since such investments tend to pay off only in the medium term. Another is the fact that the system of a dualized training is not yet embedded within the structural organization not only of the enterprises, but also of the educational institution itself, making its implementation difficult. Also, there is lack of training places available since the courses under the DTS being offered by the school does not match the demand of the enterprises in the labor market.

Based from these problems, action-oriented strategies were designed to increase the prospects of a sustainable Dual Training System. The strategies are interrelated with each other and were structured to be executed sequentially or in some tasks, overlapping.

First, the surveying of the labor market demand that should be done before implementing DTS in any TVET program. This will ensure that there are companies in need of the occupation that the school is offering. More so, this will improve the match between the employers' demand on skills and knowledge, and the school's theoretical instructions.

Then, the implementation of change, which includes resolving the employees' resistance to changing the traditional system to that of the DTS. The school must set the plans and communicate these plans to the employees, allowing them to participate in the decision-making process.

Third, extensive promotion and networking. The benefits that the enterprises can gain, either direct or indirect, must be explained thoroughly. Treating the DTS as a "product" that needs to be advertised is essential if the school wants their promotional activities to achieve optimal results. Moreover, this includes the penetration of organizations of companies that can help widen the network of industrial training partners.

Fourth is increasing the industry incentives by providing potential partners with supplemental incentives to entice them further to participate in the DTS. Advertising the companies, helping them develop a positive image and patronizing their products or services, can be useful in attracting industry partners.

Fifth, the development of the training plan must be done while ensuring that industry partners will be given substantial role in the design and development of the training plan and curriculum. This will provide them with a sense of ownership, which can further contribute to the sustainability of the DTS.

Lastly, the establishment of a committee composed of the key stakeholders of the DTS. This will make certain that these individuals will have a coordinated and concerted effort in ensuring an effective and sustainable DTS.

## **RECOMMENDATIONS**

The target date for the full implementation of the Dual Training System in SPCF is on the second semester of the next academic year, 2005-06. The proposed Gantt chart outlines the timing of tasks required to complete the groundwork for the system's implementation on the said target date.

The surveying of the labor market demand will be conducted on the whole month of November 2004. The first activity under this task is to identify the probable respondents (companies) of the questionnaire. Then, with the list of the companies finalized, the scheduling follows. The actual company visits and survey can last for two weeks, giving each respondent ample time to answer the questionnaires. After which, the collection and analysis of the data will conclude the task.

The result of the survey will determine the occupations that have the largest number of demand from the labor market. From this information, the school's management can evaluate for one week whether these courses are feasible to be opened, based from its manpower and facilities.

Meanwhile, faculty and staff orientation about the DTS will be completed for two weeks, starting on the first day of December. The design of the programme and support systems will be done on the first week, followed by the series of orientation and discussions, which may last for another week.

The year 2005 starts with a six-week extensive activity of promotion and networking. Still, the companies that will be visited should be identified based from the result of the survey conducted beforehand. Setting up of appointments with the companies might take two weeks before the final schedule is done. Then, the visit to the companies itself may last for four weeks, depending on the availability of the employers and decision makers in the companies (although if appointments were finalized already with other companies, scheduling and visitations can be done simultaneously). Another two weeks will be spent in looking for organizations of companies before allotting another two weeks in following up and obtaining feedbacks from the companies and organizations visited.

The companies that have replied decisively and positively will be invited for the development of the curriculum and training plan, which will last up to four weeks. Within that period, the actual DACUM process will take place, which is usually accomplished for two days. Two weeks will be spent to validate the output of the panel, giving the management of the enterprises and the school sufficient time to analyze and comment on the outcome.

While waiting for the results of the validation, the Industrial Relations Office can coordinate with the Marketing Department of the school with regards to the latter's schedule of visits to secondary schools. The advertising of DTS to high school graduating students can last up to four weeks if done on a daily basis.

The accreditation of the new courses to be offered will undergo two processes. First, the program must be registered under the Unified TVET Program Registration and Accreditation System (UTPRAS). It is the process by which TVET courses are registered with TESDA. Normally, the procedure needs four weeks to complete, from the data gathering, then to the submission of required documents and up to the ocular inspection. After the Authority's issuance of the Certificate of Program Registration, the second process can begin. This is the accreditation of the newly registered TVET course under DTS. This procedure may need another three weeks to be accomplished.

Simultaneously, the hiring of faculty (if needed) for the new courses and the procurement of the needed facilities or equipments may take place during this time. This may last up to eight full weeks.

The construction of the written entrance examinations for freshmen applicants to the incoming school year should be done in collaboration with the partner industries. This process alone can already take one and a half weeks. After assuring that the partner industries have already accepted all entries on the examinations, the actual conduct of the entrance test and its evaluation may take another one and a half weeks, before coming up with the final list of successful applicants.

During the first month of the academic year 2005-2006 (June), the DTS Development and Planning Committee should have already started laying its foundation by identifying the committee representatives from the partner industries, the students and the faculty. Also, the setting up of bylaws and policies should also be accomplished within this period.

The Gantt chart, which integrates all the activities or tasks mentioned above are illustrated on the next two pages. Each major and minor task takes up one row. Dates run along the top in increment of the number of weeks in a month, starting this November 2004 up to June 2005. The expected time for each task is represented by a horizontal bar whose left end marks the expected beginning of the task and whose right end marks the expected completion date.