

Listening clients' voices: a way to diversity

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Abstract

Through international agreements Technological University of Queretaro is attending to the client's voices, making a diversity way to develop a new syllabus, in close cooperation with the French automobile maker Peugeot, attending the students' needs on education and job opportunities.

Before the syllabus was started, a whole project had been developed by attending to the students', client's, employees' and other stakeholders' voices. Flexibility in learning is important and higher level qualifications are obtained this way, ensuring the viability of learning outcomes of syllabi based on competences, providing more education to more people.

Within this system, syllabi have different defined outcomes, different orientations and various profiles in order to satisfy a diversity of individual, academic and labor market needs.

Introduction

Mexico is a country located at North America, it has 32 federal entities, borders north with the United States; south and west with the Pacific Ocean; southeast with Guatemala, Belize and the Caribbean Sea; and east by the Gulf of Mexico.

Mexico has an estimated population of 109 million inhabitants in almost a 2 million square kilometers area, with Mexico City as the capital, being Spanish the official language.

One of its states is Querétaro, located in the middle of the country with about 1.6 millions inhabitants in an almost 11,500 square kilometers area, it is also one of the federal entities with the highest growth and the most dynamic economy.

The main industrial sectors are automobile, processed foods, home appliances, electronics, paper and poultry, and an aeronautical cluster has been recently created (2005).

Economic activity has been growing especially in Queretaro by the establishment of new international enterprises, there are actually 19 industrial parks, no matter the world crisis the state economical grow rate in 2009 is 1.0¹ (compared with the 1.3% national economical grow rate)² annual per cent and the automotive sector has been increasing its sales. Students in HE with an important growth of 20 per cent from 2004 to 2009³.

¹ **From:** Economic Agenda march 2009 Sustainable and Development Minister, Queretaro State Government; based on Statistics and Geography National Institute and Mexico's Bank

² Ibid

³ Educational Minister report 2009

Technological Universities of Mexico were created in 1991 –based on the French model of Technological University Institutes–; the main idea was to educate people with practical and scientific abilities in order to work in middle positions in industries according to Mexican needs; quality, diversity, flexibility, competences, intensity and an industry close relationship were the main topics to be attended by the adopted educational system.

There are now 66 Technological Universities around the country with about 79,000 students, 60 Universities have got the ISO 9001:2000 certification, 183 syllabi were evaluated by Inter-institutional Higher Education Evaluation Committees (CIEES its acronym in Spanish) Higher Education Accreditation Council (COPAES its acronym in Spanish) accredited 48 syllabi, the external evaluation by international evaluators were taken in 1996, 1999, 2002 & 2006.

Technological University of Querétaro, founded in 1994, has been developing new ideas looking diversifying all its activities, it is a place where the young people have looked for academic professional opportunities and possibilities to get a job in a short term.

Though Latin American Higher Education has a strong nationalist focus, the mind 1990s brought an economical opening through international commercial agreements, along with an urgent need to develop human resources with international competences, Technological University of Querétaro is an especial case signing a commitment agreement to collaborate, creating a network between the Ministry of Education of France, the Ministry of Education of Mexico and the French automobile maker Peugeot, from that agreement, the Training National Center was created and also a syllabus, with great benefits for students, professors and partners.

Working with external partners, it let University observe what was happening around the world, leaving aside the individual work, mixing then the institutional and the real world spheres, ensuring exchanges between them. This would secure the special strengths of HE that could only be developed by enjoying academic freedom and freedom of practical concerns such as applicability of research results and funding, but at the same time would prevent its problematic effects – isolation and self – reference.

Let us take a little view to the Report on the EUA Creativity Project 2006 – 2007 second recommendation, relations with external partners expose the academy to expertise not found within its walls and prevent isolation and self-reference. Cooperation between HEIs and external partners should follow the model of virtuous knowledge creation by aiming towards co-creation of knowledge through a two-way communication process to the mutual benefit of both partners.

On the annual convention of Automotive National Dealers Association, its president Charly Smith says in his message that success depends on the relationship between educational institutes and the dealers attending the needs with a 35,000 technicians' deficit per year.

Based on the agreement and the idea of involving an external partner, Technological University of Querétaro developed a project for the creation of an original syllabus related to Automotive Services.

Applicants are increasing so new educative offer is required, high school students expected new programs in 18% and are interested in something related to the automotive area, considering also an educational model based on competences, which opens a wide opportunity for young people.

Quantitative phase

A National Study about Labor Market was developed in 2004 for the analysis of the possibility for a new educative offer with 95% confidence, precision of 5% and a sample size of 273 dealers from 930 total dealers in Mexico throw a survey.

Brand	% Market participation	Total Dealers	Sample
Nissan	22.0	162	46
General Motors	21.9	172	51
Volkswagen	17.5	173	50
Ford	16.5	107	31
Chrysler	10.3	108	33
Honda	3.0	70	23
Seat	2.3	37	10
Renault	1.9	37	09
Peugeot	1.4	29	09
Toyota	0.9	17	06
BMW	0.4	18	05
Total		930	273

Mexican Automotive Industry Association, cited on Cuatro Ruedas journal, January 2004

Several people from the dealers companies were interviewed, which was mainly focused on Service Managers 61%, Post-sales Managers 14% and General Managers 12%.

The idea was to identify the needs and vision of the automotive dealer's executives at a National level to define areas and positions into post sales services by graduates from the university.

One important point is to know about the years of service in a position, because this means experience and knowledge needs, from which 49% have a 1-3 years of service experience, 19% 3-6 years and the rest goes from 6-18 years of service into business. The level of studies of the interviewed people, correspond 35% to engineering, bachelor 21%, high school 14% and technician 14%.

Dealers years of service in business, refers to actual activity and possibility of growth in the market, from 1-10 years 41%, 10-20 16%, 20-30 15% and 30-40 years 15%.

All dealers together have a total 21,032 employees; 19% of the dealers have from 21 to 40 workers, 16% between 61 to 80, 15% between 41 to 60 and so on.

Most of the posts in the Dealers' Companies are Service Advisors, Garage Chiefs, Technicians, Assistants, Administration Assistants, Sales Managers and Service Managers.

65% of the dealers refers that experience is needed by the technical – administrative services personnel due to different work activities, on that point activities were defined as follow.

Technical activities: Tuning, fail analysis, initial check, product acknowledge, manual consultant, quality control, detection & fail fixing, diagnostics, brakes, bodywork, unit inspection, preventive & corrective maintenance, initial & final test, technical supervision, electrical and electronics activities.

Administrative activities: workshop administration, warranties control, human resources, open, close services orders, clients' files, client advertising, work distribution, costumer service, information input, invoice & charging, quality control, costumer communication, spare parts inventory, time distribution, orders distribution, quality service measuring, jobs programming and post sales following.

94% of dealers are considering personnel training in order to perform all the mentioned activities, basically in:

Technical topics like: new models, product acknowledge, air conditioning, brake system, diagnostic, electronics, electricity, injection, transmission, suspension, engines and mechanics.

Administrative topics like: costumer service & attention, service attitude, job quality, ISO 9000, administration, computing, leadership, decision making, human resources administration, motivation, work process, warranties and English.

Post sales problems have been determined by dealers: no initiative by employees (23%), service administration difficulties (19%), manual & guides interpretation problems (17%), computing skills problem (16%) and electronic instrumentation handling (15%).

Into automotive industries dealers mentioned several technical changes, nowadays about 92% of them consider cars are changing continuously, so training is really necessary. Besides that situation due to clients demands 95% of the dealers have innovated by administrative services and costumer care, such as: satisfaction surveys, personal attention, quality service, ISO 9000 certification, continuous service, interactive courses, phone following, continuous schedule, client satisfaction index, processes continuous improvement, marketing, client translating or alternative car, express service and team work.

Growing forecast was considering by 2005 as more than 12% (23%), 4%-6% (21%), 10%-12% (19%), 1%-3% (16%) and so on.

Questioning about importance to have an high qualified professional into automotive post sales services result was impressive, 99% dealers need it; knowing Technological Universities the point of view was it is possible consider the Upper Level Technician for several positions.

New professional profile according to dealers needs by knowledge's, skills and attitudes into next way:

- Technical knowledge
 - Electronics diagnostics
 - Fuel injection
 - Transmission
 - Gas engines
 - Diesel engines
 - Suspension, steering and brake systems
 - Computing services

- Administrative knowledge
 - Programming planning
 - Service administration
 - Human resources
 - Market communication
 - Logistics
 - Marketing
 - Business administration

- Skills
 - Team work
 - Instruments handling
 - Decision making
 - Leadership
 - Personnel supervision
 - Negotiation skills

- Attitude
 - Initiative
 - Creativity
 - Positive relationship
 - Dealing
 - Perseverance

Hired possibility for new professionals with dealers 96%, covering all needs expressed

Qualitative phase

On direct interviews dealers talked about their reasons for new professionals in post sales services, most of them said that quality services are strongly needed, responsibility, attitude focused on the costumer, relationship in the workplace, team work, service spirit and client attention.

Service attitude was considered most important other to offer a personal attention; a new image is required in business taken off sensations of problem requiring post sales services, so the new professional is excellent option for this market.

It's important to know that the people involved in this phase correspond to workshops specialized in automotive service, tires distributors, trailer companies, distribution companies and executives and specialist from Mexican Auto-Motors Dealers Association (AMDA its acronym in Spanish), the list of interviewed people (in brackets) is showed on annex 1.

Analysis categories considered:

a) Service area main activities

Interviewees said about this issue:

"...we don't perform major repairs due to specialized details and because it is too expensive that one working position is given more than seven days..."(5).

"We don't perform major services because profits are no good and the time invested is too long, neglecting our usual clients"(4).

"Into workshop several services, such as diesel motors repairs, gear boxes repairs, brakes, electric & electronics systems repairs and so far are performed"(10).

b) Service area main problems

The main problem is staff attitude as we can see on next comments.

"My feeling is that people don't understand the importance of communication, no matter if it is a customer or a co-worker, with misunderstandings happening or competitions, blocking one to another's way. Another problem is, that some workers don't have a structural minding, don't follow a methodology"(5).

"A current problem is people with no initiative to go beyond the customer requirements, like offering choices or detecting an additional problem, ... they can't think "if the company makes a profit, so do I"(8).

"A homogeneous group with attitude is difficult to be found, personnel rotation is a huge problem"(9).

"Fundamental problems are related to the employee's attitude, owners must keep in mind Henry Ford quotation: "there are no good or bad cars, a car is as good as the service obtained"(2).

c) Training needs

Referring to training needs interviewees comments were about those for technical, administrative and customer service issues.

“Automotive world is quite similar to computers, month after month there are new things, so training is the only way to be updated”(4).

“Training is very important because year after year technological improvements are present on vehicles, mainly in electronics systems”(6).

“The company has a training program that involves time, and is expensive if you start from nothing”(5)

“Our company has a new objective, an ISO certification, so administrative staff is being trained in customer service, sales, and they are changing the way their thing”(9).

“In general, training must be focused in customer orientation and attention, it’s very important to have an appropriate service attitude”(11).

d) Technical – Administrative Services, high quality Professional need

“It’s important to have a clear vision about business administration, customer service and good behavior, unfortunately people think that employees in automotive service look dirty and are rude, we need to change their image”(4).

“When you are looking for workers it is so difficult to find a capable one, many come here without knowledge nor attitude”(5).

“There are many improvised people, an unfinished major is normal in service centers positions. Professionals for the job are needed”(9)

“Professionals as advisors or chiefs are required, because if a technician is attending a customer, they don’t know how to treat them, or if it is an administrative person when the customer asks about some technical issues, they don’t trust because a mechanic is required”(8)

“Highly qualified professionals are needed in service areas. Nowadays a high competition is present in commerce, there are more brands, globalization is here so consumers have more choices”(2).

“Nowadays, dealer’s profits are represent 60% by post sales services and 40% by selling cars, so a really professional service staff is important critical”(1).

e) Recommended topics for educational profile

Interviewees think that the education profile for a new professional needs to have a solid Technical Knowledge about car components and systems, specially those

referring to electronics and computing, as well as skills like speaking well, English language, plan interpretation, leadership, and team work, self organized and take decisions.

Unanimously mentioned were customer service and service attitude, good relationships, dynamism, being proactive, fluent speaking, decision making and self improvement (Interviewees 4, 5, 7 and 8).

Interviewees 1 and 2 talk about technical knowledge but also security, environmental protection, an integral conception of automotive business, loyalty, human development, cooperation and so on.

f) Graduated hired possibility

Unanimously the interviewees (3, 5, 7, 8 and 9) consider hiring professionals with desirable characteristics, because other business needed, a curriculum with the profile is needed; companies receive several graduates from schools but is needed a better profile possible one for each branch.

Interviewees 1 and 2 said that there are positions for professionals like: Service Advisors, Workshop Chief, Supervisors, Technical Advisors, Spare Parts Chief and even Service Manager.

Design Activities

A new syllabi was considered by taking into account all the obtained information through internal and external stakeholders, which includes several phases.

In the first phase four professors spent six months at the International Peugeot Training Center in Paris, France, learning about technical training for the trade mark. Since then twice a year two professors go there to update knowledge, improving the programme with this.

The second phase started with the creation of a team of experts, considering the following areas: Business Administration, Management, Marketing, Mechanics, Electrical & Electronics and Information Technologies, which analysed the findings about needs and through a brainstorming method defined generic and specific competences which should be obtained in the syllabus, a description of the syllabus objectives as well as the learning outcomes (in terms of knowledge, understanding, skills and abilities) that have to be achieved.

Into the generic competences were considered: analysis and synthesis capacity, learning and problem solving capacity, capacity to apply knowledge in practice, the capacity to get adapted to new situations, concern for quality, information management skills, ability to work autonomously, team work, interpersonal skills, organizing and planning capacity, oral and written communication in Spanish and English.

On the third phase the team, helped by other professors made the translation into the syllabus: content and structure.

Another activity was to define the educational units and activities to achieve the expected learning outcomes, also the approaches to teaching and learning (types of methods, techniques and formats), as well as the assessment methods.

Peugeot is supporting by providing year after year brand new cars and lab equipment, the University does also the same.

Conclusions

The Automotive business is growing, in spite of the global crisis, the obtained results support strongly the education professionals in post sales services in automotive area, new program is viable fixing founded problematic.

In new car models the main problems are in electronics and computing areas, all new involve new technology; customers are different, they knowing more and expecting a better service.

Based on these results the Technological University of Queretaro developed the syllabi called Automotive Post Sales Services (APSS).

Developing partnerships at local, regional, national and international level to provide attractive and relevant programs, the University provides relevant educational basis in a lifelong learning. The need for structured partnerships – with a range of other educational institutions, employers, as well as with other stakeholders – is essential if provision is to be responsive, flexible and innovative. So we are well placed to find answers to the global challenges of the 21st century.

Updating

At 2009 there are more than 350 graduates from APSS, almost 70% is working into automotive area, 10% is working around the country for several brands. Most of graduate are hired by General Motors and Toyota, there are 1350 dealers around the country and increasing.

Curriculum was designed 50% technical issues and 50% administrative; professional is a hybrid one capable to manage all costumers' requirements in post sales services.

Offering programs for professional development adapted to a fast-changing labor market, for the growing demand for personal development opportunities.

Listening client's voices, Universities are also aware of the need to engage in and reinforce dialogue with society more broadly – with employers and employee organizations, as well as with parents and students.

In this case University adapts syllabi to ensure that they are designed to widen participation and attract returning adult learners. So flexible and transparent learning paths need to be in place for all learners to access and succeed in higher education in all its different forms.

On April 2009 Technological University of Queretaro won a National Award granted by Work Ministry of Mexico for the syllabus created in agreement with Peugeot.

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Questions for discussion

- How does the University guarantee employers a good and efficient training?
- How to measure the “added value” for all the partners due to the new syllabus?
- What is an adequate balance between traditional programs and innovating programs designed with partners?

Annex 1

Interviewed personnel list:

- Interviewed 1.-** Miguel Muñoz Caraveo. Post Sales and Ecology Director from AMDA
- Interviewed 2.-** Horst Mokross F. Post Sales and Ecology Advisor from AMDA
- Interviewed 3.-** Jesús Aguado Hernández, Workshop and Services Center, General Manager (SpeedDee)
- Interviewed 4.-** José Rangel González, AC Delco Service Center Chief (General Motors Franchise).
- Interviewed 5.-** Rubén Valenti García, Professionals and Advisors Especialized, General Manager
- Interviewed 6.-** José Luis Rodríguez Martínez, Euroservice Group de Querétaro, Partner and Technical responsible
- Interviewed 7.-** Francisco Gaytán Guerrero, Montoya Automotriz, Service Department Chief
- Interviewed 8.-** José Antonio Oliva Lora, Servisistemas Llanteros (Bridgestone Firestone) Partner and General Manager
- Interviewed 9.-** Juan Manuel Macías Hernández, Complementos Llanteros, Manager
- Interviewed 10.-** Porfirio Pérez Salinas, Mantenimiento de Transportadora Egoba, Manager
- Interviewed 11.-** Alejandro Flores Santiago, Transporte Escobedo, Maintenance Manager
- Interviewed 12.-** Adolfo Moreno, Kenworth de Querétaro, Service Manager
- Interviewed 13.-** Armando Melesio Apaseo, Transpormex, Service Manager
- Interviewed 14.-** Eugenio Reyes Sánchez, Estrella Blanca, Workshop Chief
- Interviewed 15.-** Alfredo González Gutiérrez, Automotriz de Unión de Productores de Leche de Querétaro, Workshop Chief