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Analysis of the Consultative Interviews

Project Report 2 (1)

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ACKNOWLEDGMENTS

The consultative interviews in the State of Nayarit, Mexico, took place between January and March 2010. We would like to thank all principals, teachers, parents, students and other important stakeholders who gave us their time and generously shared their views on the current and future curriculum in the Upper Secondary Education System.

0. Executive Summary

The present investigation had three purposes related to the current and potential characteristics of the Upper Secondary Education system in Nayarit:

- i. To collect data about preferred curriculum principles for the upper secondary curriculum age-group in Nayarit;
- ii. To collect data about curriculum models and teaching approaches used currently in the various subsystems in Nayarit at the three levels (1st to 3rd year);
- iii. To begin the process of dialogue and reaching an agreement about the curriculum and its associated pedagogy at these three levels with all relevant stakeholders.

Initial analysis was conducted by identifying the accounts and evaluations that respondents provided in relation to the concrete questions they were asked (first order themes). In a second step relevant and salient second order themes that emerged from the interviews were identified and their relationship to the first order themes established. In this way, differences and similarities between the views of different individuals and groups of stakeholders could be brought into perspective and thereafter be interpreted and analysed from a variety of theoretical perspectives. Rather than expressing opinions or ideological stances that contradicted each other participants seemed to differ in terms of their respective position, knowledge and interests and thus illuminated the same complex phenomenon from different angles. Entrepreneurs, for instance, focused on the vocational component of this educational level and the relation to the productive sector while educational leaders and academics tended to emphasize more social objectives. Those directly involved in schooling, i.e. students and their parents, discussed teaching and learning at the level of the individual.

The range of factors that impact upon educational quality included pedagogical topics (for instance the lack of time to cover the whole programme, the heterogeneity of the student population, the work of the academies, the necessity for continuous professional development of teachers, the aspirations, hopes and attitudes of students), institutional and inter-institutional aspects (the relation between administration and academia, the control of educational quality, the financing of schools including the necessity for and forms of fundraising, the resistance of administrators towards change etc.) and the socio-economic situation (the real opportunities that different schools and subsystems offer young people, the situation of the labour market and its effects on the future expectations of students, etc.).

A set of recommendations has emerged from the analysis of the interviews (see pages 47-53) and these are structured in a similar fashion to the presentation and analysis of the interviews. It begins with the curricular and academic level, including the current and desired curricular models and pedagogic approaches (*micro or curricular level*), the institutional and inter-institutional practices and relations that shape the actual teaching and learning and possible future ones (*meso level*) and the socio-economic context the upper secondary education system is embedded within (*macro level*).

The ambivalent objectives of the system – to prepare students as technicians for the labour market on one side and on the other for university – seem to be reflected in a division between institutions. Entering a technological school is in many cases terminal while access to a general *bachelor* with its strong focus on the propaedeutic component opens up possibilities

to continue at the university level. In this context it is important to note a general geographical advantage for those students who attend schools in the political and economic centre of Nayarit where schools seem to count with a better infrastructure and families on average have a better financial background, factors which in turn are reflected in a higher level of academic achievements. In the schools which are further away from the political and economic centre, students are educated through more traditional methods in institutions with a poorer infrastructure and less qualified teachers. The student population in these areas seems to be more culturally heterogeneous but also more homogeneous in terms of socio-economic class. Given that those who have more resources also have a better educational offer, this could therefore lead to the conclusion that the education system in Mexico still reproduces a socio-economic stratification and hinders upward social mobility. Social inclusion and equitable access to educational opportunities are therefore still on the agenda and have to be addressed by any curricular reform.

1. The Purpose of the Consultative Interviews

The **Second Phase (5-6 months)** of the project involved a series of consultations with key stakeholders at the national, local and school levels in relation to the design of this curriculum and the means for its implementation. These key stakeholders included local agents such as principals and their deputies, representatives from parent bodies, and teachers, and students in a variety of schools which had previously been selected for piloting the new curriculum. At the same time academics, external educational experts and business leaders were consulted as well as state ministry, state trade union and regional trade union officials with an upper secondary school curriculum remit. The individual and group interviews were conducted by the team in Nayarit State, Mexico, from January till March 2010, and analyzed by the team in London from April to June 2010.

As outlined in the project proposal, the consultative interviews had three purposes related to the current and potential characteristics of the upper secondary system:

- i. To collect data about preferred curriculum principles for the upper secondary curriculum age-group in Nayarit;
- ii. To collect data about curriculum models and teaching approaches used currently in the various subsystems in Nayarit at the three levels (1st to 3rd year);
- iii. To begin the process of dialogue and reaching an agreement about the curriculum and its associated pedagogy at these three levels with all relevant stakeholders.

This first part of the data analysis identifies themes that emerged from the data in relation to the theoretically based framework about the current state of the Mexican Upper Secondary Education as discussed and established in *Project Report No. 1*. The data was thus used primarily to gain knowledge about the respective experiences of, and opinions about, the curriculum of the different stakeholders, as well as the perceived needs for, and expectations about, change. At a later stage, new data on the process of the actual implementation will be compared with the current results in order to identify areas for improvement and refine the developed curriculum. The interviews thus also served to initiate a dialogue with different stakeholders that will lead to a greater participation of society in educational management and decision making.

2. Data Collection

2.1. Characteristics and Institutional Affiliations of Schools

Interviews were conducted with stakeholders from the fifteen schools which were selected to pilot the new curriculum at a later stage in the project. They included five technical schools from the following federal subsystems:

- Dirección General de Educación Tecnológica Industrial (DGETI)
 - Centro de Estudios Tecnológico Industrial y de Servicios (CETIS)
 - Centro de Bachillerato Tecnológico Industrial y de Servicios (CBTIS)
 - Colegio de de Estudios Científicos y Tecnológicos del Estado de Nayarit (CECyTEN)
- Dirección General de Educación Tecnológica Agropecuaria (DGETA)
 - Centro De Bachillerato Tecnológico Agropecuario (CEBTA)
- Dirección General de Educación en Ciencia y Tecnología del Mar (DGECYTM)
 - Centro de Estudios Tecnológicos del Mar (CETMAR)

And ten schools from the state subsystems:

- Universidad Autónoma de Nayarit (UAN)
- Sistema de Educación Media Superior a Distancia (EMSAD)
- Colegio Nacional de Educación Profesional y Técnica (CONALEP)
- Centro de Desarrollo Económico y Educativo (CDEE)

The absolute number of students attending each school¹ and the relative number of these students to the overall student population attending each of the subsystems is as follows:

¹ Numbers according to SEMSSICYT (2010).

Subsystem	System	School	Absolute number of students	Relative number of students in relation to the overall number in the subsystem
DGETI	F	CECyTEN 9	337	3,17%
	E	CETIS 100	2000	18,79%
	D	EMSAD 2	112	1,05%
	E	CBTIS	893	8,39%
DGETA	R	CEBTA 72	596	5,60%
DGECYTM	A	CETMAR 26	327	3,07%
CONALEP	L	CONALEP 257	504	4,74%
UAN	E	Preparatoria 1	3401	31,96%
	S	Preparatoria 3	1024	9,62%
	T	Preparatoria 9	324	3,04%
	A	Preparatoria 14	413	3,88%
	T	Preparatoria 15	110	1,03%
CDEE	A	Preparatoria indígena	300	2,82%
	L	Telepreparatoria	54	0,51%
BP		Preparatoria privada	247	2,32%
Σ			10642	100%

Table 1: Absolute and relative number of students

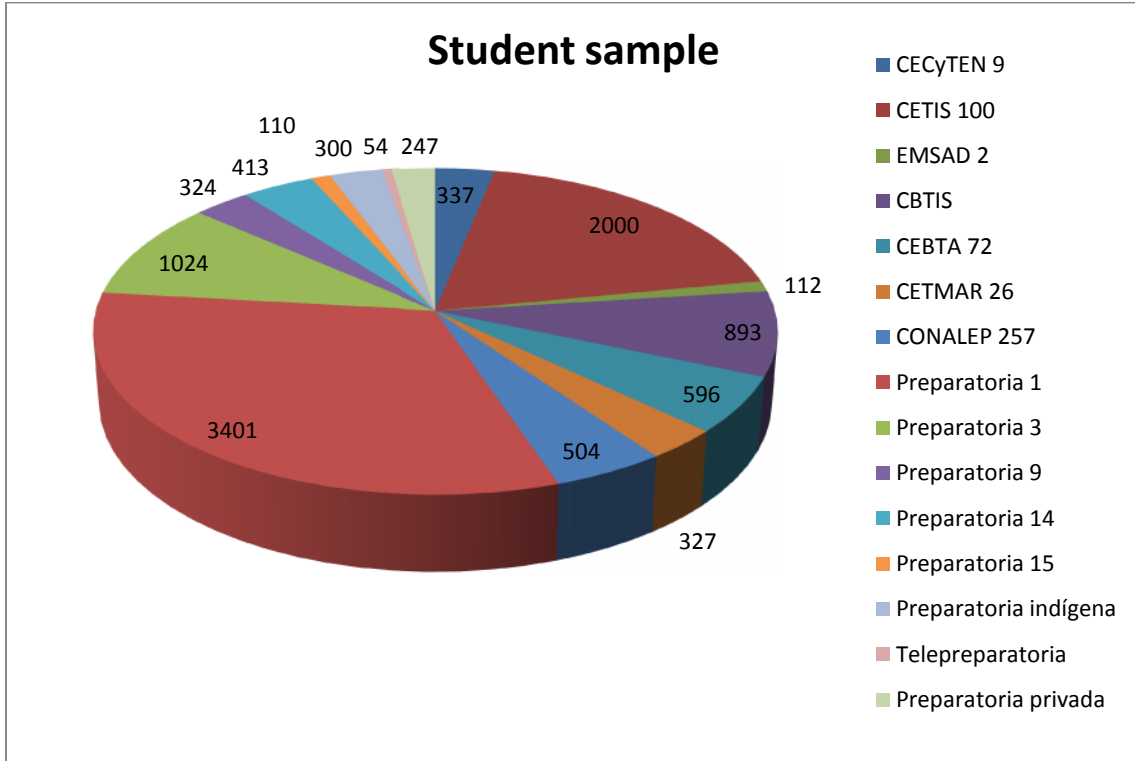


Figure 1: Student sample

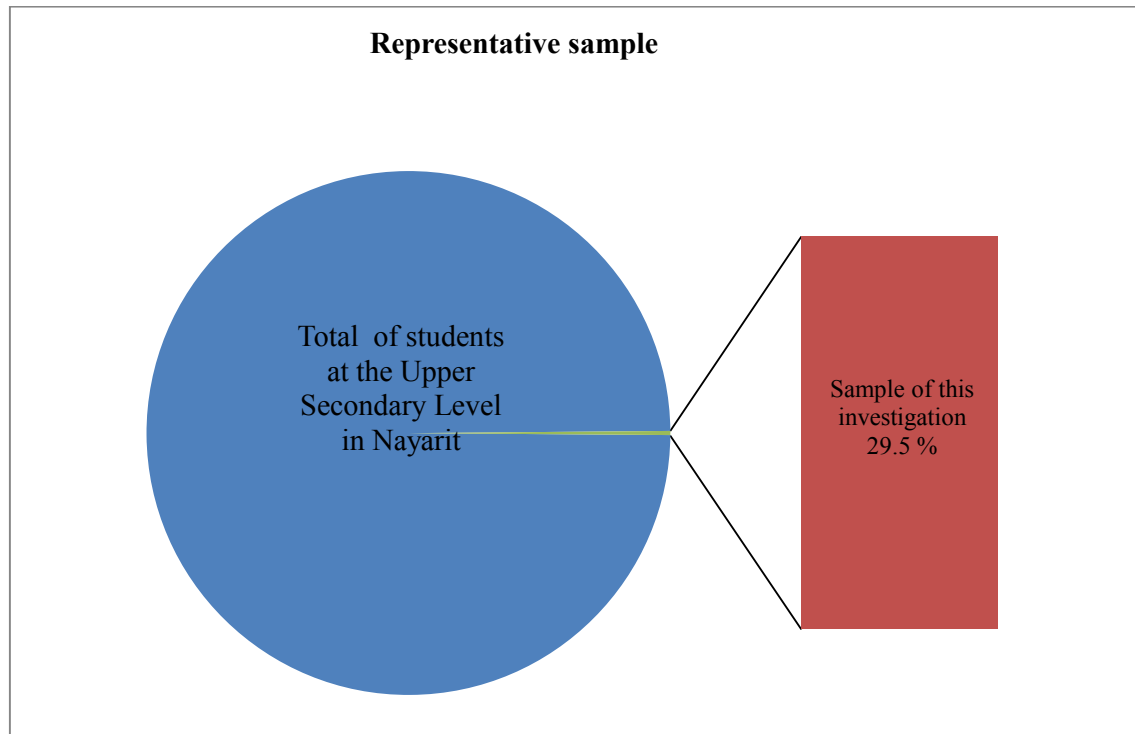


Figure 2: Representative sample

The number of interviewees per school varies between 27 and 81. The number of participants per group reflects to a great extent the proportion of this particular group of stakeholders in the schools:

School	Parents	Principals	Deputies	Teachers	Students	Total
CECYTEN 9	5	1	0	7	18	31
CETIS 100	9	1	1	21	29	61
EMSAD 2	8	1	1	5	21	36
CBTIS 27	12	1	1	18	33	65
CBTA 72	6	1	2	8	14	31
CETMAR 26	6	1	1	11	17	37
CONALEP	4	1	0	16	16	37
Telepreparatoria	9	1	0	2	15	27
Preparatoria 1	81	1	5	36	31	154
Preparatoria 3	10	1	3	13	34	61
Preparatoria 9	18	1	2	22	17	60
Preparatoria 14	0	1	2	12	18	33
Preparatoria 15	11	1	2	7	17	38
Prepa. Privada	5	1	2	10	16	34
Totales	111	14	22	188	296	705

Table 2: Groups of interviewees

2.2. Similarities and Differences between Schools and Subsystems

The schools can be differentiated in two groups: those that follow the technological *bachelor* system and those that subscribe to the general *bachelor*. In both cases, the curriculum consists of three components, the *basic*, the *propaedeutic* and the *vocational* (plus extra-curricular or complementary activities in the case of the UAN schools). The latter strand in the technological schools offers specific vocational preparation for the industry, agriculture, fishing, technology and the service sectors. The propaedeutic components of the university system² (general *bachelor*) focuses on the content areas the university offers (natural sciences, economics, administration, health studies, engineering, social sciences and humanities). Furthermore, the schools differ in the following aspects:

- The content of the curriculum, particularly the vocational strand.
- The number of students attending the school (between 63 and 3575).
- The number of teachers (between 3 and 150) and the ratio between teachers and students (1: 6 in the private school and 1: 18 in the public school with the highest number of students).
- The number of administrative and other personnel.
- The forms of contracting teachers: in some schools teachers can apply for a tenure placement, in others they are contracted for the term.
- The infrastructure - there is a variety of provision in relation to: computers, numbers of classrooms, libraries, workshops, laboratories, physical space for extra- curricular activities, etc.
- Public schools generally suffer from scarce resources but the situation seems to get worse the further one moves away from the capital of the federal state.
- The same dynamic seems to take place in relation to teachers. It is more difficult to find competent teachers with a sound educational background who want to work in the provinces.
- The indigenous communities normally live in rural areas. The schools in these areas therefore generally have a more heterogeneous student population in terms of socio-cultural background but at the same time a more homogeneous one in terms of socio-economic status.
- In the centric regions transportation is more accessible.

A particular case is the subsystem EMSAD. Theoretically it operates in a distance education mode but because of the lack of infrastructure, at least in the school that participated in this project, teaching and learning was face-to-face³. This is particularly unfortunate since the only vocational strand this subsystem offers is in computing.

² The Academic Units or High Schools 1, 3, 9, 14 and 15 belong to the general bachelor system of the Autonomous University of Nayarit (UAN).

³ The possibility to work at a distance through the EDUSAD network exists but the system is not yet in use.

2.3. Affiliation of Key Stakeholders

The key stakeholders who were interviewed included the Director of the Autonomous University of Nayarit (UAN), the Directors of the Upper Secondary Education at the UAN, a congressman from Nayarit, the President of the Commission for Education, Culture, Science and Technology of the Federal State Congress, Directors of the different subsystems, the Secretary of the Upper Secondary and Higher Education, Research and Technology unit of the State of Nayarit, one academic with a specialization in upper secondary education, another one specializing in pedagogy, the president of the Parents' Association and union leaders. The representatives of the business world were chosen on the basis of their position in the communities, the number of people they employ, their success at business and their contributions to and interest in education.

3. Analytical and Methodological Procedure

An essential part of any consulting project is access to information from people inside the respective institution who participate in and know about the conventionalized practices, norms, codes, routines and problems. Their knowledge is indispensable for a diagnosis of the organizational culture and hence for the development of strategies for improvement.

3.1. Epistemological Framework

Approaches to data analysis differ in terms of the function they attribute to the interview data, the instruments employed and the inferences that might be drawn from the analysis. A strictly quantitative approach, for instance, is based on the assumption that interviewees can and will provide an unbiased, reliable and truthful account of the reality under investigation. Methodologically, this view might be mirrored in a highly structured, standardized interview survey with a concomitant focus on the numerical value of responses. A qualitative approach in contrast is usually characterized by the assumption that interviewees actively construct their account of the world by drawing upon the experiences and discursive resources they have at their disposal. These accounts are regarded as influenced by the social relation of the interviewee to the object under investigation and the interpersonal relations at play in the interview itself. The quality of the interview depends largely on mutual trust as established intersubjectively, on the social distance between the interviewee and the interviewer and their (dis)agreement on conversational rules related, for example, to turn-taking patterns, time and attention allocated to different contributions, freedom of expression and feedback, aspects that evolve over the time of the conversation. Interviews enable participants to

... discuss their interpretations of the world in which they live, and to express how they regard situations from their point of view. In these senses the interview is not simply concerned with collecting data about life: it is part of life itself, its human embeddedness is inescapable. (Kvale 199: 14, quoted in Cohen, Manion and Morrison 2007: 349)

Methodologically, semi-structured and open-ended individual and group interviews have therefore been preferred in the present investigation based on the assumption that respondents should be given time to elaborate and clarify their perspective.

Following from this is that interviews inevitably vary both in length and depth. Although the interviewers in the present investigation followed a clearly defined interview guide – with semi-structured questions proceeding from more general and abstract to more specific questions⁴ in an identical sequence – respondents commonly felt the need to develop their responses further, to elaborate issues they found particularly relevant and even to shift the topic if necessary. It was their perspective on the issues at hand that was considered important and therefore they were given time to do so.

This is particularly relevant for group interviews. Although group interviews are generally understood as providing an accumulation of individual perspectives they can also develop a particular dynamic and thus generate new and relevant themes that were not included in the interview guide. They might facilitate responses to sensitive matters when participants support and encourage each other, lead to intense discussion and/ or disagreement. On the negative side, the presence of others might cause individuals to either express only socially desirable responses or to withhold their opinion altogether (interviewees might also collude in withholding information). Interviewers therefore have to be highly sensitive to the dynamics of the group and need to encourage a balanced participation of all members of the group. Analysts in turn have to be attentive to disagreement and topics that are either marginalized or fully ignored.

In sum, the interview data in the present investigation was primarily regarded as socially constructed but authentic views on present and future curricula expressed by specific people in specific social roles and relations related to upper secondary schools. The content was coded thematically:

Content coding aims to show the range of viewpoints expressed in the interviews, how widely a specific view is expressed and how the holding of a view correlates with other factors, such as the social role in relation to the education system. (Abell and Myers 2008: 146)

The analysis of each interview will therefore be presented in a condensed form for each group of stakeholders with particular attention to disagreement and contradictory accounts of reality. Original passages were transcribed and are included in these summaries when they served to illustrate specific points in questions. At the same time, interviews with principals, deputies, teachers, students and their parents from the technological schools were separated from their counterparts at the general and the distance secondary schools. The similarities and differences between the views expressed in relation to each of these systems have to be taken into account when designing and implementing an overarching and generic curriculum.

The fact that the interviewees occupy specific social roles in relation to the school entails that they view and contextualize the themes suggested by the interview guide differently. They extend, elaborate, shift and transform the topics according to what they regard as relevant and important and are therefore imminently important. For this reason *secondary* themes as developed by the interviewees in relation to the *primary* ones were identified and mapped onto each other. The resulting group-specific networks of themes were then analyzed and compared. This procedure allowed an assessment of the differences and similarities in the

⁴ Questions differed according to the group.

particular construction of topics by different groups of stakeholders (Krzyzanowski 2008: 170).

Once the themes and patterns had been identified, the results were interpreted and analyzed from a variety of theoretical angles in order to come to an in-depth assessment of current curricula and pedagogic practices in the upper secondary curriculum in the State of Nayarit and the need and preferences for change.

3.2. Data Triangulation

Triangulation refers to the use of different methods, theoretical frameworks, analysts and/ or sources in order to ensure greater robustness and richness in an investigation. The multiplicity of perspectives of different stakeholders provided a greater understanding of

- i. the curriculum models and teaching approaches used currently in the various subsystems in Nayarit at three levels;
- ii. the positive and negative evaluations of these models and approaches;
- iii. the preferred curriculum principles for the upper secondary curriculum age-group in Nayarit;
- iv. any other issue related to the upper secondary school system and curricula that was regarded as relevant by the stakeholders.

In terms of analyst triangulation, the analysis of the audiotapes by the team in London was cross-checked against the field notes made by the second interviewers in Nayarit and finally reviewed by some representatives of the different stakeholders. In fact, the cross-checking of primary and secondary themes mentioned above already had a corrective and enriching purpose. It ensured that the way the topics were constructed by the researchers was validated against and corrected by the construction of the agents involved.

The accumulated data was then complemented by an analysis of electronic and written documents that circulate in institutions and regulate practices, communication and interaction, in particular the *Curricular Framework for Upper Secondary Education* issued by the SEP, official guidelines for its implementation, curriculum related documents, programmes of study, teaching guides, textbooks and other teaching material (print and digital).

3.3. Transcription Conventions

Transcription is never neutral, it changes the way the data is presented and hence interpreted. In the present case, however, silences, false beginnings, changes in tone of voice and pitch amongst many other elements were omitted in order to increase reader friendliness and the efficiency of the analysis. As the investigation focused predominantly on the different views of and opinions about the various topics related to the curriculum in upper secondary schools and not on the actual discursive construction of these interviews, no need was felt to employ a particular transcription code as in more linguistic oriented analyses.

4. Points of View of Different Key Stakeholders

The aim of the data analysis was to gain a profound and nuanced understanding of the practices, reality, concerns and opinions of all key stakeholders involved in upper secondary education. In the first instance, we therefore addressed the question of whether different stakeholders have different views about the current curricula that are in place and desirable future ones. To this end, primary and secondary themes that emerged in the interviews were matched and the resulting thematic network was compared in order to assess the shared as well as the unique perspectives of all the participants and groups involved. This includes, as argued in section 3.1, a focus on both themes that had been elaborated by the interviewees as well as those they marginalized or ignored.

Even though the majority of interviewees displayed openness towards and interest in the themes, they also differed in terms of their **background knowledge**, their **motivations** to share or to withhold certain information, their **social** and **institutional roles** and concomitant perspectives etc. The first part of this chapter addresses the differences and the similarities between the perspectives of different stakeholder groups while the results of the interviews will be interpreted from an appropriate and flexible theoretical framework in the second part aimed at capturing the complexities of each and every theme under discussion.

We start from the general normative definition that a curriculum has to be viewed as the sum of knowledge, dispositions and skills that one society wants to transmit to the next. This is a selective process which inevitably includes some elements and excludes other. In addition to this we assume that a curriculum cannot be understood in separation from the socio-economic, cultural, institutional and inter-institutional contexts in which it unfolds and acquires meaning. Economic conditions, national and even international politics, the composition of society and the relations between different social groups all precede and impact upon the education system. These factors enable, constrain and shape specific practices and meanings as do, on a different level, institutions which evolve over time and thereby pre-structure current forms of teaching and learning. The analysis reflects this ontological framework and proceeds from the micro level of curricular contents and pedagogic procedures via the meso-level of institutional structures and practices to durable conditions and structures at the macro-level.

4.1. Similarities and Differences between the Discourses of Different Social Agents

Differences between the perspectives of different stakeholders are clearly marked in the secondary themes that emerged during the interviews, i.e. the topics interviewees found particularly relevant in relation to the questions asked. The group of principals and their deputies for instance talked about the relation between the administration and the academic section of their school, collaboration with other institutions, the infrastructure of the school and the need to raise private money and encourage the flow of public finances, the drop-out rates and the inclusion of parents and the community. Teachers also thought about the social context and the infrastructure of the institution but they generally dedicated more time to pedagogic themes, for example, the insufficient time to cover the whole study programme, the heterogeneity of students, the collaboration in 'academias', the need for professional development, the attitudes of students, the need to develop new and multiple literacies, the deficiencies previous educational levels cause, etc. Parents as well as students worry about the

actual opportunities that the school opens up for young people and compare the quality of education in different schools at the same level. While both groups focus on the teachers' competence and the general socioeconomic situation, parents also comment upon attitudes and the lack of motivation of their children.

The differences in perspectives between different groups of stakeholders can partly be traced back to their **background knowledge**, their **roles** and **positions** and their **interests**. In terms of **background knowledge** teachers, principals and representatives of different educational and academic institutions are, for instance, generally well-informed about the present and previous curricula – which enables them to assess the relation between objectives and results and to compare different curricula and their effects - while parents rarely seem to be aware of these details. These three groups are at the same time able to evaluate quite clearly the preparation of students in relation to the demands of professional life and the labour market. Economic stakeholders and government officials also assess quite concisely the profile students should currently possess in order to find employment⁵. The group of academics argues for a comprehensive vision of the social objectives of education, particularly in relation to the need for an intercultural education that does justice to the multicultural reality of the country. Students obviously have experienced actual teaching practices and the contents of the programmes of study but might not know the reasons behind specific pedagogies or the inclusion of particular knowledge areas if their teacher has not explained it to them.

Institutional and social **roles** and **positions** also influence the perspectives and opinions social agents hold. There is a potential tendency in representatives of educational and academic institutions including principals to express views which can be described as institutionally desirable. They surely constitute the group with the highest stakes in impression management although individuals can also considerably divert from their official role in an interview. The same group knows the details of institutional functions and procedures and inter-institutional relations. They can therefore give valuable information about the socio-economic and financial situation of the schools and the different forms of management and fund-raising that impact upon educational quality in the classroom.

In addition to this, the position of principals and their deputies in a competitive field often makes them compare the educational quality of their particular school with other public and private ones. They frequently mention the number of grants students get as indicators of this success, successful projects in or across different areas, the professional success of their alumni and the percentage of students who manage to pass the entrance examination at university.

Educational quality and the comparison between institutions are equally relevant for parents and student who share an existential interest in the reputation and social status of their school because these factors impact directly upon their opportunities to continue their studies at university or to find a job. While principals and their deputies concentrate on more or less measurable indicators, parents and students link educational success closely with pedagogical

⁵ Economic actors tend to focus on competencies currently in demand rather than those needed in the future. They also tend to emphasize the acquisition of minimal competencies instead of sophisticated or advanced ones (Coulby 2000: 15).

practices. They usually stress that ‘good’⁶ schools promote values such as discipline, respect, and honesty, and stand out for their teachers’ commitment. Among the various other functions they attribute to education – for instance personal and professional development and realization, academic preparation – it is the socialization into accepted values and behaviors that seems to have a special weight.

Even though all agents seem to favor improvement of educational quality, different groups appear to judge the attitude of other groups towards a reform more strictly. Teachers, for instance, emphasize the obstacles the bureaucracy generates and the resistance administrative personnel display. Principals and deputies, in turn, locate the resistance in teachers. The same phenomenon occurs with respect to other problematic areas where two or more groups are involved. The aim of the analysis is not the identification of the **interests** behind these causal explanations and evaluations but providing a balanced interpretation of the structures and practices that generate these differences.

Interests, however colour the prioritization of curricular objectives. Economic agents and to some extent representatives of other educational institutions tend to focus more on the actual demands of the labour market (although they do not always preview future ones) and for this reason stress the vocational at the expense of the general or propaedeutic part. In comparison, teachers’ and parents’ accounts often include other objectives and functions of the curriculum such as the inculcation of values and civic and health education. Students in turn prioritize individual development emphasizing artistic and cultural abilities. Economic actors represent the group that emphasises the need to control educational quality most. They propose various strategies such as, for instance, a constant evaluation of teachers or the privatization of the education system parallel to the establishment of funds for outstanding students.

The interviews also differed in terms of openness and motivation to share certain information. References to practices that do not adhere to the impartiality or objectivity educational institutions should pursue, such as corruption, micro-politics and nepotism have been made only in some cases. Although the number of references to these kinds of phenomenon is small, they seem to be indicative of a situation characterized on the one hand by a scarcity of resources and on the other, by a lack of effective control over their distribution.

In relation to the curriculum *in use*, the differences between the perspectives of teachers, students, parents and principals are also closely linked up with the institutions these actors are affiliated with and the quality and efficiency of the teaching and learning that takes place. Instead of analyzing the idiosyncrasy of each particular institution, it seems reasonable to identify the general differences between subsystems in order to achieve a diagnosis of the structures, general conditions and specific needs of the Upper Secondary System in Nayarit as the actors involved describe them (see Ch. 4.3.1. “*The infrastructure of and the differences between the educational institutions*”).

In order to account for the heterogeneity of themes and perspectives an explicit theoretical framework has to be established that will guide the interpretation of the data. This framework has to be flexible and adaptive to be able to capture the particularities of each theme under discussion. We will depart from the general ontological assumption that structural preconditions such as differences between schools generate differences in the reality of

⁶ This perspective does not always coincide with the educational reality. Its consequences, though, for instance in terms of preferences of students and parents, are certainly real.

participants in these institutions. The position we take is that this lived reality in turn influences, although it does not determine, their perceptions of, and attitude towards, these practices.

The analysis of the present curriculum in use as perceived by the actors involved will thus include and link the normative meanings constructed by the participants (ch. 4.2. “*Level I: The curriculum*”) to an analysis of the institutional (ch. 4.3. “*Level II: The school context*”) and structural preconditions (ch. 4.4. “*The socioeconomic context of Upper Secondary Education*”) they refer to.

4.2. Level I: The Curriculum

4.2.1. Objectives

According to the interviews, upper secondary education in Mexico has several objectives. In the first instance, students have to acquire advanced content and conceptual knowledge as well as procedural strategies to continue their study at the higher education level (the **propaedeutic** component). At the same time students should acquire basic professional concepts, skills and competencies that enable them to integrate themselves successfully into the labour market as professional technicians (the **vocational** component).

To prepare them for the next step, higher education, or to prepare them for the labour market. (Principal)

They should know the basics in order to pass an admission examination at university, or to incorporate themselves into the world of work with their own life project.
(Teacher)

In order to achieve these aims, upper secondary schools have to strengthen, broaden and deepen knowledge, skills and dispositions acquired at previous educational levels (the **basic** component) and orientate students in respect of academic and vocational opportunities. With reference to the vocational part, it is argued that specializations (career strands) as well as subjects contents and the competencies to be acquired have to be checked against the current demand in the labour market. The current situation requires, for instance, the ability to analyse and resolve real world problems, to work in teams, to use new communication and information technologies, to realize investigations and to administer resources. Students also should be proactive and able to communicate and interact effectively with other people, etc.

At the **social level** students should be educated to be responsible members of the community and critical citizens. The school therefore has to

... cover the necessary areas that help young people to become mature human beings and citizens. And at the same time to foment knowledge, abilities, skills and competencies ... everything that enables them to continue successfully with their studies at university. (Principal)

To this end, students need to be literate and able to understand and produce different forms of texts and genres. Teachers should therefore

... apply the necessary means to enhance the student's comprehensions and, above all, her ability to express herself, including techniques to improve their orthography, reading comprehension and writing. At the same time, they should be taught analytical skills, to be reflexive, and to express themselves in front of an audience. This will help them in their daily and their professional life. (Teacher)

Students also have to acquire basic knowledge of Mexican culture(s), speak one or two foreign language, be respectful, honest, responsible, tolerant, autonomous, imaginative, etc. An education in values is highly emphasized and regarded as beneficial for personal and professional development as well as social integration, particularly in the context of the social deterioration and violence many interviewees see the country currently suffering from.

At the **level of the individual**, students should get to know different forms of art, literature, architecture etc. and develop their own creativity and talents. The goal is to encourage physical activity and the adoption of habits beneficial to a healthy lifestyle (this includes gender relations, family planning and a healthy nutrition). Put negatively, addiction and undesirable behaviour that might be acquired during this difficult developmental phase should be avoided. Pupils should also be prepared to face problematic situations in life and take responsible decisions. Education has therefore, it is argued, to be relevant to young people's life, flexible, updated and contextualized.

The sum of the objectives that emerge from the interviews resembles the Integral Reform of the Upper Secondary Education (e.g. professional competencies, self-determination and autonomy, communicative competence, reflexivity, and the ability to work collaboratively).

4.2.2. The Heterogeneity of the Student Population

Students are very diverse in relation to capacities, behaviours, abilities, attitudes, motivation, interest and learning styles:

There are those who are dedicated, those who are less dedicated, those who are really bad and those who come only because they oblige them to do so at home. (Teacher)

The student who is motivated to learn, who is planning his life and the student who is living this phase of his life, who simply ... the only thing he/ she wants is to pass the examination. (Teacher)

The different groups agree that the diversity of individual characteristics is a positive element that could and should be exploited for the benefit of all students. It is therefore essential, they argue, that teachers have the profile, the abilities and pedagogic resources to work with heterogeneous groups. They should be able to attune to the pupils with greater need for help and scaffolding as well as to those who learn quickly. However, the Principal of the private school suggested otherwise: "[Our] teachers are prepared to work with diverse groups. This does not represent the 'heel of Achilles' for the institution".

The interviewees also agree that students come to the upper secondary education with a variety of different schooling biographies and educational experiences from different systems (e.g. the open secondary schools, the technical, the general and the distance learning ones),

different regions and different socio-economic backgrounds. All these factors influence students' learning, knowledge attainment and performance. One group of teachers describes the conditions of poverty under which many of their students in the province live and study:

It is not the same, the student who lives over there in Tepic and the one here who slips and trips in order to get to school. The level of nutrition is so totally poor and different here. Over there the region is developed, comparatively. (Teacher)

If we talk about the socio-economic level, we can talk about those students who have enough to eat well fed and who do to not have to work. Although we even see students who have to work even in the middle classes because the father does not support the child. There are a lot of families with many children and economically speaking, they have a very low level; all this obviously impacts upon the performance of the pupil. (Principal)

One teacher claims that students who go to school in the capital Tepic tend to come from a better economic background than in the province which is reflected in greater academic achievements⁷.

While the majority of students have deficiencies in their reading and writing abilities, in English and mathematics, many of those who come from a poor family background and from remote communities additionally have not acquired learning strategies and the practice of critical reflection because they were instructed through traditional methodologies⁸. Having attended institutions with inadequate infrastructure they lack technological skills and competencies.

Some interviewees think that in order to level out differences between students, at least partially, teaching and learning has to be standardized across the system, constructivist and also relevant to the context of students. Others suggest that the official programmes should be adjusted to the real needs of students. The majority of participants reject the idea of creating different schools for different groups with different needs, but think that pedagogies and curricula have to be adjusted to individuals and communities. One suggestion with regards to English and Computer Science is to establish groups with different levels of competences in order to ensure better learning outcomes. Another possibility that was mooted was the introduction of a term or even a whole year 'zero' that would bring students who have fallen behind up to the level of their peers. So far, differences have only been addressed through tutoring and short remedial courses.

⁷ Students and teachers of the private school refer almost exclusively to individual differences, for example, ways of thinking, learning ability and interest, and do not mention socio-economic or regional differences. This could indicate that the students population is relatively homogeneous. At the same time they argue "There is nothing more important than the family and this determines the academic performance 100%". The socio-economic status of the family seems to play a particularly important role, as one teacher explains: "Sometimes a child comes with his dad and the administrators do what he wants because the dad pays them".

⁸ In marginalized areas the drop-out rate is higher than in the capital.

4.2.3. Contents

The fact that subsystems have different curricula generates a wide variety of opinions in regard to actual and desirable curricular contents. In general all the interviewees affirm the importance of all the subjects currently being offered. Although critique is directed towards some courses and modules, the deficiencies usually seem to be caused by the way the curriculum is delivered rather than the relevance of the knowledge areas. Participants demand that teachers should exercise “*more responsibility*”; they should prepare classes more adequately and efficiently and have the required pedagogic background. Teachers and administrators should be committed to educational quality. In several instances, interviewees suggest the appointment of an external authority that controls and checks teaching practices and can thereby bring about improvement.

The different groups agree that the following elements of the **basic component** should be strengthened so that students will be better prepared for the vocational and propaedeutic strand: reading and writing competencies (including orthography), English (which should be taught throughout the three years of the *bachelor*), information and communication technologies and mathematics⁹. All interviewees stress the need to add physical education, health and sexuality education¹⁰, ethics and values, ecology and environmental science to the curriculum. Interviewees agree that although Mexico is rich in terms of culture, nature, arts and crafts these elements are not employed to foster a national consciousness and identity. Cultural and artistic workshops and extra-curricular activities are therefore proposed to enrich the educational offer.

Students, teachers, principals and academics emphasize that it is necessary to bring those subjects areas back into the basic component that were excised before and later through the Reform. Some think that since 2008 the vocational strand has been privileged and that this part, with its 17 contact hours per week in the second and third year, is inflated. Others, however, would like to see it extended.

There is also a consensus in regard to the lack of proportion between class time and the extensive programmes that have to be covered. In fact, successful schools have introduced obligatory classes on Saturdays in order to teach the complete programme, go into depth with its contents and thus improve learning outcomes.

For an efficient functioning of the **vocational component** it is necessary to strengthen the professional orientation and introduce it already in the first semester (preferably at the lower secondary level). Teachers have to have the required educational background in order to provide this support in an informed, pedagogically sound and motivating way.

Additionally, this component should be closely linked up with the current demands of the economic sector. An investigation could help to update the programmes of study so that strands of specialization are offered that meet the economic needs of individuals, regions and

⁹ In terms of individual subject areas, one group of teachers criticises, for example, the sequence in mathematics where integral calculus precedes differential calculus and algebra and arithmetic are separated. The same group states that some contents in computer science are obsolete such as MSDOS and that statistics overlaps to a large extent with bio-statistics. According to them Greek and Latin Etymology and Research Methodology are misplaced and should be taught earlier in the programme.

¹⁰ Many young girls become pregnant because they are not informed about contraceptives.

the country. Interviewees generally agree that current contents neither match up with the regional context nor institutional capacities. It is suggested that schools should also include visits to different universities to familiarize students with existing educational options.

It is important to note that the contents are closely linked to the resources at hand. Subjects such as computer sciences, the natural science and above all the entire vocational component require not only teachers with a professional and pedagogic background, but also laboratories, workshops, classrooms with technological resources, and updated equipment. Without these the practical application of knowledge to real world contexts as demanded and promised by the Reform becomes impossible and its objectives obsolete.

The next sections focus on the reduction of the humanities and the social sciences before and through the RIEMS and the importance of an education in values.

4.2.3.1. The Reduction of the Humanities and the Social Sciences

Teachers, principals, academics and students compare the previous curricular maps which included psychology, research methodology, philosophy, social sciences and history with the current one where these areas have been compressed into a single subject in all technological schools called *Science, Technology, Society and Values* (taught in the first, third and fifth semester). All stakeholders argue that this reduction is inappropriate and unfortunate, particularly in relation to citizenship education:

Since the last government we have gone through a dramatic reduction in the social sciences. Through the Reform the social sciences and the education in values were cut out. (Principal)

... we cannot leave the humanistic part and the values aside. They might not be explicit in the curriculum but they are implicit in the integral formation of the human being. (Principal)

I still do not understand why they cut out the social sciences. They also wanted to include physical education in the curriculum and then they did not. Where is the promise they made? (Teacher)

The lack of education in these areas places students at a disadvantage, not only individually and socially but also when they sit the entrance examination at the university which includes general and more specific knowledge in the humanities and the social sciences.

4.2.3.2. Values

The society an education system is embedded in influences practically all educational processes. The interviewees often refer to a decline in values (e.g. respect, equality, responsibility, order, discipline and honesty) and the lack of a critical and ethical conscience in society in general and the professional world in particular. Some argue that the nation is unfortunately going through a phase of social and family disintegration and that young people are surrounded by drugs, alcoholism and violence: *“The family structure has come to an end.*

Young people are basically educated 'on the streets'. They are not educated anymore; their values have changed a lot" (Key Stakeholder). One Principal mentions that many parents tell him that *"they cannot handle them [their children] anymore"*. According to the majority of interviewees, teachers, parents and authorities should therefore form educational alliances and pursue and foment the same objectives in an education in values:

... and I say foment because I have always been convinced that we do not create values in schools. Values are created in the family, at home, in society, here we only foment or strengthen them. (Principal)

Values should not come only from teachers, they should also come from the society and families because if we inculcate them in some values they do not see at home or in society then these values are nothing but a dream. (Teacher)

... but what do we gain if we polish them at school and at home they hear everything? There is a lot of alcoholism, drug addiction and homosexuality in X [place] (teacher)

Look, in respect to the education in values: You know that in schools you cannot give them much. That is why I think that values have to be generated at home, this is where we should strengthen them because here you do not really see much of them. There are a lot of students who do not respect the teachers and it is true that they are already at high school and they do not tell us [the parents] anymore: "Mr. or Mrs., your child is misbehaving". I mean, they are grown ups now and I think it should not be like that. (Parent)

Maybe it is an error to say 'here' because we should have learnt that already in our family and we have been through primary and lower secondary. But I think that we are adolescents now and in this phase we are more aware and it is easier to assimilate these things now. (Student)

4.2.3.3. Multi-Modal Literacy

All interviewees are aware of the changes in communication and information technology and their effects:

The knowledge that an individual can have today is so, so, so much superior to that in our days. Now they enter the internet and have practically all the information. I think that today the problem is not so much knowledge but education. (Stakeholder)

The representatives of different institutions, teachers and parents agree that students today have to be able to search for, identify and select among the abundant information in the internet. They have to be able to analyze, synthesize and extract what is most important for the task.

Teachers have noticed that the new technologies are directly influencing the practices and knowledge of students who, for instance, do not read written books but use new forms of communication such as emails, the internet, blogs, SMS, pod-casts, twitter, social networks etc: *"The way they write text messages with their mobile phones, the same way they write in*

the examination" (teacher). These new modalities, genres and forms of communication generate the need to amplify the objectives of the curriculum and include multi-modal literacy. The following quotation exemplifies the existing generation gap in this area which makes teacher training essential: *"And as a teacher they [the students], they oblige you. Let's see: What is facebook? You have to investigate. And now we are thinking that our high school needs to have [...] a facebook account."* (Teacher)

4.2.4. Relations between the General and the Specific Parts of the Curriculum

Relations between the general and vocational parts vary between subsystems. The latter usually starts in the second semester and comprises between 20% and 50% of the programme. The basic component builds up the necessary knowledge components for the other two parts, the vocational and the propaedeutic. Literacy, numeracy, the ability to look for information and solve problems, among others, are by definition transversal and interdisciplinary. Transversality and interdisciplinarity, however, create problems at the upper secondary level: firstly, teachers often do not know the contents of other subjects and therefore do not know how to relate their area to others; and secondly, many students unfortunately reach this educational level with severe deficiencies caused by poor teaching at previous levels. These in turn cause delays in the programme. Several proposals as to how to solve this problem emerged in the interviews, for example:

- a propaedeutic course before entering the upper secondary level,
- an extension of the basic component,
- an extension of the number of contact hours, for instance, through the introduction of classes on Saturdays,
- Linking up closely the upper secondary level with the preceding levels,
- Grouping students according to their respective level of knowledge on the basis of a diagnostic test at the beginning of term.

At the same time, upper secondary education, it was suggested, should be tightly linked to the careers offered at the higher educational level. One Principal reports a frequent criticism voiced by universities: *"Why do you send us people you cannot even read or write?"*

Although the relations between the individual components are implicit, structurally no formal links exist – apart from the multi-disciplinary academies – that could generate teacher collaboration across disciplines, for instance through interdisciplinary projects. Teachers complain about not being informed about other subjects (they say that *"everything happens behind closed doors"*) and as an unintended consequence, contents are being repeated. For this reason they suggest the revision, modification and update of the curricular structure and some content areas in order to firstly, reconcile the topics of the different levels theoretically and practically, and secondly, reinforce their transversality (for instance, reading and writing abilities).

In relation to the sequence of subjects, the participants emphasized that *Research Methods* and *Greek and Latin Etymology* should be taught from the first term onwards because they include concepts and terminologies that are needed in all other subsequent areas in all three components.

4.2.5. Tests and Assessment

According to teachers and principals a variety of assessment instruments exists (written and oral examinations, portfolios, expositions, questionnaires, observation guides, check lists, group work, essays, final projects, research projects etc.), as well as criteria and thresholds. The frequency of assessment also varies widely; in some cases students are evaluated weekly, in others, twice, three or four times per term.

Despite the availability of instruments and the conviction of the majority of teachers that assessment should be formative and continuous, in practice, in some institutions more than in others, the written examination still seems to prevail, above all in the basic and the propaedeutic components. The practice is criticized by students, parents and stakeholders as being rigid and not connected to real learning and its contextual relevance. It appears that testing is often employed for disciplinary reasons¹¹. This explains why normally attendance in class (having missed three classes, students lose their right to take the examination), punctuality, participation and discipline (in one case 30% of the overall grade) are included in the final grade. In some schools, teachers have to apply predefined evaluation instruments; in others the academies establish the criteria. These collaboratively developed rubrics make the process more objective and foment the auto- and co-evaluation of students.

Assessment is a sensitive topic that can generate resentment on the part of the evaluated. Nevertheless, all interviewees, not only students, agree that the process is realized in a very subjective way which generates great inter-rater variety. Apparently, some even “*give away grades*” (Principal). Only a few teachers allow students to comment upon the assessment and in some cases the composition of the grade is never explained. The subjectivity and the disciplinary function of assessment in the context of its heavy weight in the overall grade provoke a resistance in pupils who do not hesitate to copy and memorize atomized items for the examination:

You can study from one day to the next, you memorize only for the day of the examination but later you do not remember anything. A continuous day by day assessment would be better than just an examination. (Student)

It is complicated to introduce new approaches in a traditional learning and teaching culture. In the case under investigation, a gap exists between the current practice and the focus on formative and qualitative assessment. Various teachers, for instance, report that after having attended the PROFORDEMS diploma course they have introduced a more radical assessment regime but are confronted with students who often misunderstand qualitative evaluation as permissive. Other obstacles they encounter are the lack of time, the lack of a theoretical and methodological framework that substantiates these forms of assessment and the lack of a clear and transparent curriculum with transparent regulations. One group of teachers explains that according to the RIEMS, at least 70 elements have to be evaluated, a practice they view as rigid and not practical: “[to assess competencies] *is much more complicated than this, than evaluating knowledge*” (teacher).

¹¹ Homework also seems often to be employed for disciplinary reasons.

4.2.6. The Results of the Curriculum

The results do not always coincide with the objectives described in Ch. 4.2.1. This is due, on the one hand, to a scarcity of resources, above all, the lack of infrastructure (e.g. laboratories, equipment, access to computers and the internet, new computer programmes etc.) and on the other to the heterogeneity of students which emerged from the different schooling experiences and diverse knowledge levels.

Our effort and work as teachers is not all that is needed. We have been working and fighting here for years because we lack infrastructure, material, for example, and this has limited us in our attempt to achieve the objectives of the programme. (teacher)

Other factors are the heterogeneity of the student population, partly due to the diversity of schooling biographies and the concomitant level of knowledge, the fact that many teachers lack an adequate background in pedagogy and the missing link to the labour market. Together, these elements have various consequences. Interviewees observe that knowledge is not contextualized which makes the acquisition of competencies through practical experience difficult. On the other hand the percentage of students who continue studying at university level is low. Students argue that in order to enter higher education they need to raise their level of English, improve their computer literacy and enhance their professional practices.

The situation is quite different at the private school. According to the teachers, students are "ahead", they have "knowledge superior than average" and have acquired practical skills, partly through the use of technology. More hours are dedicated to English, for example, than suggested by the curriculum and the school has organized the formalities so that students can certify their level through an external institution (in the case the University of Cambridge). In computer science teachers make sure that all pupils work with new technology and software.

At the **end of the first year** students should have amplified and strengthened their basic knowledge and selected their area of specialization. They should have become more responsible, have improved their reading and writing abilities and know how to investigate and use computers. It is important that they learnt to speak and write English to an acceptable level, and have acquired basic knowledge in chemistry, physics, biology and mathematics. Furthermore, they should have learned to be reflexive and critical and in the case of the general high school they should know the university system and the objectives of the educational model.

The main aim of the **second year** is to motivate students to continue studying. The list of abilities that should have been acquired is similar to the first year although students should have gone into more depth. They should be able to express themselves orally as well as in writing, to solve problems, to use computer technology and to work in teams. They should know how to organize themselves and take decisions and how to investigate. They need to be able to communicate in English and have a sound knowledge in the natural sciences and mathematics, as well as foundation knowledge in the area of specialization.

At the end of the **third year** students have strengthened their professional competencies, have had practical work experiences and/or are prepared for higher education. They should also know how to relate values to their daily life. The majority of interviewees agree that the length of three years is adequate for the *bachelor*. In addition to this they would like to have

the opportunity to embark on their specialization in the second year and thereby build up a professional profile.

4.2.7. The Integral Reform of the Upper Secondary Education (RIEMS)

The Common Curricular Framework (CCF) follows three principles: firstly, it aims to develop the personal and social capacities of young people (*basic component*); secondly, it aims to develop the capacities to continue with higher and further education (*propaedeutic component*); and thirdly, it aims to develop professional competencies for students to enter the labour market (*vocational component*). It has an in-built flexible design in that it defines these competencies at a general level while allowing some leeway to institutions to adjust these descriptors to the respective curricular objectives in relation to the vocational programmes each subsystem offers. This new focus should be understood as an additional structure that has the capacity to articulate the objectives of the existing ones.

The Reform has been adopted very differently in different subsystems and schools. Some already work with the new programme, at least partially, whereas others have not yet implemented it. In some institutions the competency approach is mixed with previous curricula. In one school, for example, the Reform is applied throughout the first two years of the *bachelor* while the institution works with an earlier programme for the fifth and sixth semester.

In general the interviewees seem to be positive towards the Reform and its emphasis on the applicability and relevance of knowledge through the **concept of competency**. This is understandable in the context of the deficiencies of the previous curriculum which Steyn and Wolhuter (2000: 257) describe as an “encyclopedic collection of contents”. Based on an image of the learner as the passive receptor of static and predefined knowledge it marginalized contextualized and autonomous learning. One father describes the change in the following way:

... it is adequate for our time. What we need is adequate teacher training because it becomes misinterpreted because people do not know it. And the truth is that many of us try to hide and avoid responsibility but I think we are in this phase in high school because we were taught this way. Our education was different, we were physically punished and forced to learn and this is now history. So there are new approaches, albeit not that new because these methodologies have been used before. So what is needed is a preparation and a change of attitudes of teachers. The rejection of the Reform should disappear. I think that ... I have daughters and sons here at this school ... I think that this teaching approach, this constructivism, is excellent, a real change. But under the condition that the teachers have the educational background.

The openness towards the Reform is accompanied by certain **criticisms**. As already indicated in ch. 4.2.3.1. (“The cut back of the social sciences and humanities”), the Reform appears contradictory. Although promoting an **integrated education**, in practice the focus is on the professional component and subjects such as philosophy and ethics, two fundamental areas for such an education, were eliminated. In addition to this, the amount of contents to be covered has been expanded while the numbers of contact hours has been reduced:

They [the teachers] have told us that the study programme had been reduced after an order from 'above', that they had to synthesize it and that they now teach us the most essential. (Student).

Deficiencies also exist at the **methodological level** because teachers do not always have a background in pedagogy (as one teacher explains: "*to begin with we do not have the pedagogic background, we have not been educated to become teachers*") and do not receive transparent and clear instruction. The interviewees explain that the programmes of study come in the form of conceptual maps which only "*insinuate*" what should be taught in class. The actual detailed planning and preparation remains in the hands of teachers who have to modify the didactic guides and adjust them to the specific context of their school and the needs of their students:

It is ok that they do not give us everything. But it is also excessive because if they do not give you everything then they should also delimit the programme. Because if you cannot cover everything then each teacher comes up with a different version of it.

The Directors of one school point to the institutional separation between curriculum designers and teachers. They claim that the curriculum is handled as a "*secret*" and that universities and other institutions do not share the necessary information with schools. They argue that it is of utmost importance to make teachers understand the curriculum, to convince them of its usefulness and desirability and to involve them. Otherwise, they suggest, any Reform is futile.

Some teachers have already participated in the diploma course PROFORDEMS (others pay for their own professional development), but the majority of teachers simply do not know the curriculum in its entirety. In addition to this, teacher training does not always have the desired effect because the methodology employed might contradict the objectives and procedures promoted for the Reform. Lefstein (2008: 727) describes such an incoherence in the case of the *National Literacy Strategy* in England:

While the NLS explicitly espoused discursive, interactive, and ambitious teaching practices, including, for example, the use of open questions to provoke pupil critical thinking, its professional development program employed a transmission pedagogy that positioned teachers-as-learners as passive, uncritical recipients of a tightly closed lesson plan. This contradiction is not merely an issue of logical consistency: The professional development's hidden curriculum communicates ideas about teaching and learning that undermine its explicit curriculum (cf. Alexander, 2005).

As the same author argues, the relation between a Reform and its realization in the classroom is, as a matter of fact, highly complex:

Research into educational policy implementation has shown that instructional Reforms rarely influence classroom practice as envisaged. Teachers ignore, resist, subvert, misinterpret, selectively adopt, or otherwise distort Reformers' intentions. Changes tend to be superficial, seldom penetrating the core of instructional practice. Even in cases of relatively high fidelity, teachers commonly cobble new ideas onto the existing practices Reformers are attempting to supplant (Cohen, 1989; Cuban, 1993). (ibid: 703)

Parents comment upon some of the subversive practices teachers employ in relation to the new curriculum:

In relation to methods I heard that now teachers are mediators, facilitators, guides, because a teacher now says: "I am not going into the classroom and I am not going to teach you. I want you to investigate for me this and that topic and you are going to do that in groups. And then you will come back and present your investigation and then you will do this and that." As I have understood it, this is the new method that they are using in order to see if the children learn better if they investigate themselves instead of the teacher giving them everything in class. This seems ok to me but at the same time there are teachers who take this as an excuse for being lazy. They let the children work and do not do anything. And then there are others who let the students investigate but they work, as well, in order to improve or strengthen the student's research or presentation.

The implementation of an innovation in the classroom does not solely depend on the motivation, will, comprehension or the capacity of the teacher. Teachers and Students interact on the basis of conventionalized behaviours and expectations. These 'interactional genres' can persist despite the teacher's explicit acceptance of the Reform:

Interactional genres emerge in the daily to-and-fro of teachers' and pupils' joint activity. But they do not emerge onto a blank slate. Participants bring with them cultural and historical resources and models regarding what it means, for example, to be a 'pupil' or 'teacher' and what a 'classroom' and 'lesson' should look like. These models are shaped by the institutions in which they are embedded. For example, pupil participation in school is mandatory, and teachers are required by contract—and by law—to deliver a curriculum. Teachers administer tests, are authorized to mete out punishments and rewards, and submit formal and informal reports about the pupils in their charge. These institutional factors reinforce current teacher and pupil roles and constrain possible alternative roles. (ibid: 709)

Various groups of teachers accept that they do not know how to attract the interest of their students. Some comment that even though they have changed their approach to a student-centred one, in trying to motivate their pupils, they face a "cultural war". One group of parents argues that it is often the students who reject the new methodology:

It varies. Sometimes students think of some teachers as arrogant. They say that the teacher does not do much apart from coming to class, giving them a topic and putting pressure on them. This is the perspective of those kids who still have not fully absorbed the meaning of this method. I think that this meaning has to be cultivated and that students need to understand that teachers implement this methodology in order to make them more responsible, motivated and independent in terms of learning. So I see a relationship here between the teacher who came to class and used his method in a traditional way and the student who participated in a passive fashion in class. And now with this movement even we as parents have to intervene because they oblige us to: "Hey dad, I do not understand this or that". But there is a problem because we are a very diverse population in educational terms and there are lots of parents who do not have the background in certain subjects and this is where problems can emerge.

From this perspective, the adoption of discursive elements such as ‘constructivism’, ‘integral education’, ‘transversality’ and ‘competencies’ does not necessarily translate easily into good practice in the classroom. The way teachers talk about education indicates the persistence of practices¹², patterns and ideas contrary to the Reform. One group of teachers for example says that the didactic sequences¹³ they are obliged to use generate a “chaos” in the classroom, partly because of the differences that exist between students and partly because of the lack of time that is needed to teach effectively. The Reform provoked a drastic change that, according to another group, caused resistance not only in those teachers who have been in service for a long time but also amongst younger colleagues because they do not feel supported. They describe the previous approach as a “teaching-learning” process where “the teacher taught and the student learned”. The Reform promotes a pedagogy based on constructivism where, they argue, the student has to actively collaborate in order to construct their own knowledge. In this context, a third group of teachers, describe their difficulties in communicating the nature of the concept ‘competency’ to students. They describe the way the approach is currently realized as a “cover up” for a behaviourist model where the teacher takes the student “by the hand” and guides him or her through the learning process because students are not used to autonomous learning. In some cases objections to the Reform are expressed even more directly:

Academics might say that I am wrong but for me this famous Reform is totally useless. And we even went to some conferences, we have attended presentations about the Reform. And still, those who go and talk about the Reform conclude at the end - even though my colleague here will probably not agree: "A good behaviourist is better than a bad constructivist". (Teacher)

One group thinks that although the Reform corresponds to current agendas relating to globalization there is no infrastructure and no economic investment which would support its implementation. Between the objectives of the Reform and classroom reality there is an abyss and the “world class system education” the Reform aims for is currently an aspiration rather than a reality. In order to prepare students for the globalized world and international competition one has to first of all invest in education:

Probably an idea emerges: it would be convenient because in country X it worked. But yes, Sir, how are we going to compare the investment of the government? You have to be conscious about the investment in education in Mexico and in other countries such as the USA for instance: totally different! (Teacher)

Various groups think that the Reform sounds idealistic in the context of scarce resources, for instance the lack of laboratories, the high number of students in each class and the financial shortcomings of pupils. Teachers agree that it is impossible to reach certain levels of competence if students cannot practice:

It really sounds very romantic that we are going to ‘create technicians of a world class level’ as the slogan said when the Reform and the integration of competencies and all this stuff began. But in reality we never get there. We do not get there because even if we had a system of grades and certificates and all that, we lack the necessary

¹² The complexity and fast pace of classroom interaction forces teachers to take decisions instantaneously and on the basis of their intuition.

¹³ The didactic sequences imply the use of resources which are often too costly for students as well as teachers.

up-to-date material and equipment [...]. Let us pretend that we have someone certified in computer science but the equipment is not up-to-date and this is the situation in the whole state, in the whole country probably. We use software but these are all illegal copies and the budget to buy software has not been defined. (Teacher)

In summary: although a reform is adopted at the macro (institutional) and the meso (lesson planning) level, the micro level, i.e. the interaction between students and teachers, can be governed and subverted by quite different patterns¹⁴. The result is a mismatch between the curriculum and what really happens in classrooms.

4.3. Level II: The Institutional and Inter-Institutional Context

4.3.1. The Profile of the Teacher and the Need for Professional Development

Teacher profiles differ widely in terms of disciplinary-academic knowledge and methodological resources they have at their disposal and can employ in class: *“We know that we live in a state and a country where things are not the way they appear to be and that there are good and bad teachers”* (parent). Unfortunately, there are no statistics about the number of teachers at the upper secondary level, their professions, their levels of competence as teachers, whether and how often they have participated in professional development, the number and forms of existing contracts and salaries etc. The subsequent lack of transparency can lead to undesirable practices¹⁵, as suggested by some parents:

When the teacher does not have the full capacity to teach a certain subject area than that is where unionism comes in: “Because he is my son or my grandson I put him here, because I have the power and influence to do so”. And there are so many teachers who do not teach their area of specialization.

I am not sure, there might be two options: Either we do not have, or the Ministry of Education does not have a teacher workforce that is able to teach and be responsible for certain knowledge areas or it is a situation of unionism which very often affects education.

All students except for the ones from the private school¹⁶ express their wish for more dynamic

¹⁴ This does not mean that teachers are wrong to act in this way. To the contrary, their beliefs and interpretations can reveal fundamental aspects about the context of the classroom and the socio-cultural environment. These subjective theories therefore have to be analyzed and brought into relation with the theoretical assumptions underlying the curriculum.

¹⁵ At the level of basic education the SEP has already established such a database in order to make the situation more transparent. As a matter of fact, non desirable practices come to light. On the 2nd of July 2010 the newspaper *El Universal* informed that according to the *Registro Nacional de Alumnos, Maestros y Escuelas* (RENAME) the SEP paid 1.600 million Pesos during the first term of this year to non existing teachers (176,000 cases), to teachers in schools that do not exist or have been closed down and to teachers who allegedly hold two positions in two different states. In a similar vein, 407 million Pesos were paid to almost 10.300 teachers who do not teach but dedicate themselves to the union or politics. This data base can be consulted at the website of the SEP website: www.cumplimientopes.sep.gob.mx.

¹⁶ Apparently the situation in the private high school is very different, as some students express: *“There [they refer to another school] teachers do not have a master degree and here it is obligatory to have an M.A.”* and: *“The teachers in other schools teach only because they get paid.”* They report that their classes are dynamic, the relationship between teachers and students is amicable and both, teachers and students are motivated. Teachers

classes, progressive methodologies¹⁷, the use of technological resources, more explanations, research and projects that would allow them to integrate and apply their acquired knowledge etc. Students, parents and stakeholders seem to agree that teachers should be evaluated regularly, either by their students or an external organization. In order to increase the level of academic and pedagogic knowledge and motivation of teachers, it is of utmost importance that only those teachers are employed who are committed to their work and have the necessary pedagogic background. Additionally, models of professional development and training have to be developed and taught by specialists who take the needs of teachers as their point of departure and nurture not only the acquisition of new concepts but also the interactional competence of teachers.

In order to overcome the fragmentation of teachers and to encourage the cooperation and exchange between them, so-called ‘academies’ have been established. These are obligatory meetings of teachers normally from one disciplinary area but in some cases across subjects (teachers from one of the three components, for instance). They take place between three and four times per term (although they can be called upon instantaneously if the need arises) and have a unifying and homogenizing purpose in respect to objectives, methodology, adjustments of the programme and evaluation criteria. Cases of individual students or general educational issues can also be discussed.

4.3.2. The Relation between Administration and Academia

Many stakeholders, principals, teachers and parents talk about the institutional, regional or national administration as being slow and bureaucratic which has negative effects on educational quality and efficiency. They would welcome the implementation of a system that guarantees objectivity and impartiality of administrative and educational processes, including the distribution of resources and positions. Directives should ensure that teachers have the required profile and that their teaching should be of high and constant quality (and that positions can be revoked if this is not the case). Authorities should know the programme of study, adapt its objectives and processes to the local, social and economic needs and contexts, update it and supervise its implementation.

4.3.3. The Infrastructure and the Differences between Institutions

The main objective is to reach a nationwide coverage in upper secondary education and to have a good quality in absolutely all subsystems of this level. It seems to me that in terms of coverage we have advanced a lot, but there is no homogeneity in terms of quality across subsystems, not even inside subsystems, not even inside departments. That is why the Reform has to homogenize the quality. (Stakeholder)

and Principals explain that they pursue continuous professional development, either imparted through the psycho-pedagogic department of the school or external agencies. According to the principal it is very difficult to find teachers who have the adequate pedagogic preparation.

¹⁷ Many students report that their classes are organized around a didactic sequence or a textbook in a rather inflexible manner.

The infrastructure of schools¹⁸ varies greatly: *"In other high schools they have for example enough laboratories so that students can learn more and here they do not"* (Student)¹⁹. The lack of laboratories, workshops, classrooms with audio and/ or video equipment, up-to-date computers and software together with the fact that schools are not linked up with companies and industries generate a **gap between theoretical and practical knowledge**:

Given our limitations we are quite proud that the kids do really well at the higher education level. Now, in regard to the practical side we are failing a bit because we do not have the equipment to make them learn how to do things. I remember one class: "Now we are going to see measurement instruments" and then you begin and later one of the kids investigates and begins: "The vernier is a device that bla, bla, bla ..." and then comes the explanation: "This little screw which is here has to be pulled back and forth ..." But all this on the basis of an image because we do not have a vernier or a micrometre [...]. The other option is that the teacher buys a vernier so that he can explain it. (Principal)

These shortages make learning in general difficult but especially in the areas of Computer Science and the Vocational Component. It creates a gap between the professional reality and the learning that goes on in schools, contrary to one of the main objectives of the RIEMS. One Principal of a school that offers a general *bachelor* explains that his institution simply cannot offer the vocational component because they do not have the necessary equipment²⁰. According to him, the state government announced that they would take care of the upper secondary system; however, economic resources did not arrive at his school. Another example is that of a distance learning school which offers only one vocational strand, computer science, but does not have adequate computers (teachers describe the machines they have as *"simply obsolete"*), software or internet.

The deficient infrastructure does not only make teaching difficult, it also generates the **need for principals to raise money**. A key stakeholder explains that there are always *"principals who raise more money than others"*. The situation of the institution depends upon the *"good will"* of the Principal and his ability *"to know who to ask for resources so that objectives can be met"*. As one Principal expresses it, his function is mainly to *"generate money for the school in order to lift it up"*. Although some form of financial support is mentioned, it is not sufficient and in addition to this is inefficiently distributed, as another office holder explains:

The resources from the federal state are exclusively for the salaries of the teacher. Everything else we have to buy from our own income. The government does not give us anything if we do not raise money ourselves. The financial resources from the central government are transferred to the federal state, the Ministry of Finance, and from there it is administered for construction. But apart from that the federal state

¹⁸ The infrastructure figures as a secondary aspect in the school choice of students, together with school times, the possibility to select a career from the beginning of the *bachelor*, the family tradition of going to this particular school, the discipline, the values and the order that the institution inculcates in students. More important are the closeness to home (for economic reason), the tuition fees, the vocational specializations the school offers, the educational quality and the preparation for university.

¹⁹ The students with less economic resources do not have the choice between schools because they have to take the one closest to home. As a consequence, children who need more support attend schools with a lower infrastructure and educational quality. This increases differences between students from different socio-economic backgrounds.

²⁰ Although a great demand exists for this type of school only 30% of adolescents who apply are admitted.

takes a long time to distribute the money, the economic resources. For example, we had four classrooms and the building was demolished by the hurricane X. And the government sent the money to rebuild it in 2007 but we just finished the building on the 10th of February [2010]. It was a very time-consuming constant, constant, constant negotiation with X [institution 1] and the state government. The Y [institution 2] whose Principal is the engineer B and the Z [institution 3]. We had all the support from Y as well as from P. When there was R, the 'graduate' R and now there is the engineer C, when there was also the 'graduate' M. in Z [institution 3] and now there is the engineer N. We have received quite a lot of support from these two institutions, as fundraisers and fortunately we finished the building with four new classrooms. It gets demolished and then it gets reconstructed. And a water tank has also been demolished but this one has not been reconstructed because we do not have the economic resources. And there are also 294 metres of fence missing that were destroyed by the hurricane, as well, and precisely yesterday the mayor organized two truck loads of sand and a private person gave us 500 bricks, the big ones, as a present so we can continue with another piece of the wall. And that is how we manage. But now I have to see where I can get cement and mortar from so that we, the school personnel, can actually use the blocks and rebuild the wall.

The fact that this Principal mentions all administrative position holders he is in contact with by name and evaluates their attitudes towards the problems of the school is indicative of a social context where interpersonal relations are essential in order to receive support and money that should, as a matter of fact, flow independently to the areas where it is needed. For this reason another Principal demands that the local and regional authorities have to take an active part in education and should, by no means, stand in the way of the necessary fund raising.

Apart from the resources that the state and federal governments, local, national and international businesses and private people contribute to the school, the institution is still confronted with shortages and therefore **needs to offer non academic services** in order to be sustainable. The same Principal as above explains how this works in his institution:

Well, we do it with the rent of the cafeteria, with the enrollment fees and with the fees for the 2nd round of examinations [for those students who did not pass the examination the first time]. Luckily, the General Department leaves us the whole rent of the cafeteria. We do not have to pass it on to the primary schools or to F [institution]. Here the rent for the cafeteria remains with the school, as well as the money from the enrollment and the second round of examinations. Sometimes we sell the odd coconut but the prices are very low. They sell them in the village for 15 pesos. There are many coconut vendors here and they have just, in January, begun to pay 2 pesos, before that they paid us 1.50 ...

In the context of poverty and marginalization, schools might even take on additional responsibilities and provide services for the community, for example medical attention as in the following case:

... fortunately, we have a medical service here, we have a doctor, a doctor in general medicine. She is also specialized in gynecology and an obstetrician and we have a dental surgeon. I remember that at some point we had a principal who took particular

interest in the oral health of students and the doctor and the dental surgeon did a project but then there was no money but the project nevertheless began. (Principal)

The scarcity of resources makes collaboration between institutions an important factor, as another Principal points out:

There is an exchange of knowledge and of workshops. In terms of the latter they invite us and we invite them, as well. We also support each other in terms of material and equipment. When they have something that we do not have they lent it to us and vice versa.

The system displays a certain **ambiguity of objectives**. Even though the Reform obliges all schools to offer vocational strands, the focus in the university institutions is still on the propaedeutic component. Authorities as well as parents and students agree that the primary purpose of upper secondary education is not to make students enter the labour market directly as technicians. Instead, they should continue with a professional career at university level if families can afford this. The very low pay for a technician as well as the mismatch between the educational offer and the demand in the labour market are among the principal reasons for this preference:

... unfortunately in our country there is a great economic difference between a professional and a technician. The technician has not really been appreciated although sometimes there are technicians who outperform professionals The general bachelor gets more and more important and the vocational component gets more and more reduced. (Teacher)

One student describes the difference between a general and a technical high school in the following way:

I am not against the technical school but I feel that when you enter a technical one you do not want to study at university ... like: You enter university and you say: " I do not like it, I leave! Because I already have my certificate as a technician and I have my profession," or whatever they call it," so then I will rather work". And I think it is because of that that Mexico is a third world country because we do not have the necessary well-educated people who can generate progress and improvement.

The argument of this student has not been confirmed by the empirical evidence of the interviews. All participating pupils expressed their desire to continue studying at the university level. They would only choose to enter the labour market directly as a technician if they did not have the economic resources to finance their studies.

A consensus exists therefore in relation to the reduction of the generic and the propaedeutic parts, in particular the cut back in the humanities and the social sciences in technological schools, and the predominant emphasis on professional competencies. It is argued that this reduction makes it difficult for students to improve their socio-economic position through a university career. Students and parents refer frequently to this danger and warn of a technicism that focuses on the integration of students into the labour market without giving them the opportunity to enter higher education.

4.3.4. Accreditation and Certification

The different interviewees stress the need for a general homogenized curriculum, as suggested by the RIEMS, which would facilitate the **free transfer of students** from one school to another:

... there needs to be a standardization of the bachelor system. Yes, all bachelor schools have to have the same curriculum [...]. If for whatever reason you have to move to another area or you just do not like the school then you should be able to change to another one without a problem. (Student)

The current heterogeneity of the system seems to generate a lack of transparency of and arbitrariness in the revalidation processes which causes difficulties for some students for example when they attempt to enroll in university:

We have noticed as parents that when they [the students] want to enter university they [the administrators at the university] look at their certificates and this is where the differences emerge. Because they tell some of the students: "You know what? You have to go to the SEP and get your certificate revalidated"... I mean ... I do not know why this happens. Others do not have to revalidate their certificate, as far as I have understood. The other example is when they change schools inside the same state and it turns out that they [the schools] do not have the same subjects. Then there is sometimes the option that you leave your name and they have a look at it, I think the SEP does, and then they say: "Ah, this subject looks like this one, so we will give him the grade that he obtained for this subject in the other school." But what happens to the other subjects? And we are talking about the majority of subjects. They are there for a reason. I therefore think that the students probably have a disadvantage, right? [...] ... They should all be equal, nobody should have an advantage. (Parent)

Various interviewees point out that only the elements of the basic component can be standardized and **revalidated across the system** because the vocational specializations are too different. Students who come from a school that has the general *bachelor* system and change to a technological school therefore have to cover the specific modules of the second and third semester (17 hours per week).

According to one stakeholder, the advantage of the technological school lies precisely in its dual objectives. Students are prepared to integrate themselves directly into the labour market as technicians or indirectly after having studied a professional career at university. He argues that it is actually unfair that students at these schools have a double workload since they have to pass both parts in order to graduate. Why, the same interviewee asks, should someone have to pass a test on a module like 'car maintenance' if he or she finally wants to study, for example, biology at the university? He therefore proposes a double and independent certification for the two strands, the propaedeutic and the vocational component.

Various groups of teachers and parents and various principals think that external institutions should certify the knowledge or competencies of their students in order to increase the objectivity of the process and the validity and recognition of the diploma. In some schools such external examinations are applied, for example the certification of vocational competencies through the ICATEN (*Instituto de Capacitación para el Trabajo del Estado de*

Nayarit) and the CENEVAL (*Centro Nacional de Evaluación para la Educación Superior*) which covers the contents of a whole semester. While one Principal praises the advantages of this latter certificate²¹ (*"it puts them under pressure and therefore they learn better"*), students claim that the examination puts them at a disadvantage because it is structured differently from the programme they see in class. Teachers make the same point by explaining that students' grades are lower than their peers' from other schools due to the degree of difficulty of the CENEVAL examination. At the same time, though, they agree with the principle that students *"should have tried harder in order to get better grades"*. One consequence of this strict regime is that students become demotivated and migrate to other subsystems. Students therefore think that the external examination should either become the standard in all subsystems or it should be abandoned. Since there are many differences between regions, institutions and contexts in which students learn, most interviewees are against the first option and favour a mixed, formative and summative evaluation, based on interdisciplinary projects.

Many students and parents express their wish for a certificate after each year of the *bachelor* that would testify the acquisition of certain competencies. In the case of having to leave school for economic or other reasons, this certificate would be designed to help them find work or continue their studies at a later point in time.

4.3.5. Social Participation in the Upper Secondary Education

The objectives, contents, processes and results of a curriculum are a public matter because they influence not only the opportunities and future of a new generation, but also select those knowledge, values and norms of living together that a society wants to establish or maintain. A curriculum in this sense can be described in the words of Baker and LeTendre (2005: 137) as *"valid cultural knowledge"*. The present investigation confirmed the wish of key stakeholders that their opinions are taken into consideration in decisions about the design and implementation of a reform. To this end new dialogue and communication between different actors involved in the *bachelor* should be fostered.

In some institutions contact with parents is established at the beginning and the end of the semester, mostly in relation to the delivery of grades or disciplinary issues. In others extracurricular activities are promoted where all participants (teachers, principals, students and parents) come together. In most cases, though, schools seem to *"have eliminated"* (stakeholder) the contact with families, particularly poorer ones. Even in *"relatively stable"* families there seems to be less and less interest in the education of their children. Most interviewees are convinced that the lack of attention to children in this phase of their development is dangerous for them, as well as for society, especially in the context of social instability, increasing drug addiction and organized crime. Involving parents who guide their children morally and academically could foster a greater sense of social responsibility and link the work of the institution with the expectations and real needs of students.

²¹ The CENEVAL exam is applied in the schools, collected and delivered to Mexico City. Schools are informed via internet about the results.

4.3.6. The Relation to Previous and Subsequent Educational Levels

A School Principal noted that the admission examination designed by the SEP was not passed by a single student at his school: "... *the highest grade was 7.3 and from there downwards*". Therefore the Board of Directors had to lower the threshold in order to be able to accept at least 20% of those who had taken the examination. One teacher describes similar experiences with the admission processes at his school:

... when we opened the admission examinations and then: How many do we accept? Zero and then we start and check where we went wrong and then we check the programme to see: zero, zero and zero and then we look for the rejected ones and there they are, all of them.

All teachers and principals argue that many students come to this level of education with great deficiencies, above all in their reading and writing competencies. They are not able to understand a text or analyze it²². Students explain that this is due to a systemic failure. They have observed that students pass examinations even though they had not acquired the appropriate skills: "... *since they are small, in the primary, the teacher who taught them in primary. They had not learned to write but they passed, they passed to the next level*". One teacher describes the level of knowledge of his students in mathematics in the following way: "*you give them a fraction and you kill them*". An English teacher suggests that his students arrive at this level with low levels of knowledge and as a consequence make poor progress: "*we never leave the verb 'to be' in five semesters and they do not want to participate*". The teacher concedes that his own level of English is weak: "*I said this in English, but of course, my English is not good either*". Teachers from another group point out that students have not received an orientation in terms of possible careers and therefore often choose the wrong specialization. The tutorials are meant to provide vocational guidance although the teachers in charge of them seem to lack the necessary pedagogic background to offer this service in an adequate way.

All interviewees agree that every reform should be implemented from the primary school onwards²³:

In the international context they see Mexico in this sense, although the developed countries, for example, invest in research but from the kindergarden and the primary level onwards. And we do it the other way round. They have done a lot of investigations from above but if you get the teachers together they have another opinion and if you interview them out there they have another opinion and if you ask them in the classroom they have another one. (Teacher)

²² In order to assess the knowledge of applicants and to give principals and teachers feedback the Autonomous University of Nayarit realizes a diagnostic examination in each admission period. Major deficiencies are usually detected in the areas of literacy and mathematics.

²³ In July 2010 the SEP informed about the results of a national examination for teachers who competed for positions in basic education. According to these results seven out of ten teachers (some of them already working in schools, others who have just finished their pedagogic studies) do not have sufficient knowledge for such a position. Out of the 123,856 applicants who presented the examination 92,770 (74.9%) "needed more preparation" or were simply "unacceptable". Out of this group 5,029 (4.06%) achieved less than 25 correct answers out of 80 and out of these 3,552 had already taught in pre-primary, primary and secondary for at least ten years.

4.3.7. Relations to the Economic Sector

One of the principal goals of the upper secondary system in general and the RIEMS in particular is to teach students professional skills and competencies so that they can integrate themselves successfully into the labour market. The concept ‘competency’ emphasizes the application of knowledge in real world contexts. It is, however, this contextualization of learning that many institutions cannot provide due to a lack of laboratories, equipment and workshops. One teacher sums up the effects of these contextual constraints in the following way: *"We are educating theoretically informed people but not practical and productive ones"*. Another Principal explains:

This is the principal objective: to educate people with the knowledge and abilities that are needed for the work in [sector X], [...] and I can tell you straight away that what we pretend to do is very good. Unfortunately, we are more than 10 years behind in terms of technology and equipment and sometimes even we as teachers are somewhat obsolete.

The definition of particular professional competences is guided by predefined standards and expected performances of experts in the respective field. In order to generate descriptions of competencies which faithfully reflect the reality of the productive sector, both spheres have to be tightly linked and should interchange information and knowledge. Key stakeholders as well as teachers and principals, however, claim that unfortunately this link does not exist²⁴.

One key stakeholder thinks that this is a general problem in the Mexican education system but that it is exacerbated in Nayarit as an agricultural state: *"we remain on the level of production. We do not process what we produce further; we do not add value to it"*. The same person explains that young people reject work in the fields and other unstable sectors where outdated technology is used (or *"archaic systems"* as another academic describes it). They either emigrate to other Mexican states or the U.S.A. or look for other careers. The government contributes to this tendency, according to another stakeholder, in the hope of attracting investment to the human capital of well-educated young people. Unfortunately, this human capital has not been adequately developed yet:

Our people who are very much behind in terms of technology. That is why we are not competitive and that is why technological development, at least in our country, is so poor that it does not allow the companies that are in Mexico to produce technological goods that are produced at this very moment in other parts of the world.

Many interviewees therefore demand that the educational offer should be updated on the basis of a detailed investigation²⁵ of the actual and potential future demand in the labour market in

²⁴ The principal of one highly successful school attributes the success of his institution to the constant contact and communication with the business sector which allows them to adjust the graduate profile to the demands of the labor market. For this reason, almost all students (at least in the area of tourism) find employment.

²⁵ The necessity to conduct an investigation about the real labour market situation is reflected in the diversity of opinions different educational experts hold. One of the specialists, for example, considers that due to the economic investment in the hotel and tourism sector in the Riviera Nayarit, educational authorities should focus on educating and training students to work in this area. He mentions that many foreigners manage hotels and restaurants in this region because there are not enough Mexican professional who have the educational background to perform these tasks. Another expert believes, in contrast, that too many students specialize in tourism although there is not enough demand on the labour market.

different regions of the federal state. For another stakeholder this boils down to a political question: *"What can we legislate so that the education in Nayarit, its curriculum, will be pertinent?"* He proposes that the different state ministries which have to do with production, for example the Ministry of Rural Development, The Ministry of Fishing and the Ministry of Economic Development should collaborate with the Ministry of Education in order to design a new curriculum adjusted to the needs and potentials of the State of Nayarit and the country. He argues that although the upper secondary education system should be standardized, regional differences also have to be taken account of, for example, through a *"contextualized curriculum"* for Nayarit. Another key stakeholder makes the same point: *"We have to find a flexible curriculum that has variations adjusted to the region where it is going to be implemented"*.

4.4. Level III: The Socio-Economic Context of Upper Secondary Education

4.4.1. Social Inequality and Education

In Mexico there exists a great disparity between the different strata of society. According to a report by the *Consejo Nacional de Evaluación de la Política de Desarrollo Social* (CONEVAL 2008) more than fifty (50,6) million Mexicans or 47,4% of the overall population (107 million inhabitants) live in poverty, i.e. they do not have the necessary income to satisfy their needs in terms of health, nutrition, education, housing, clothing and public transport. Out of these, 18 million live in extreme poverty. The problem has become even more pronounced through the recent global crises in the food, the financial and the economic sector which affected poor people in a disproportionate manner. According to the UNESCO (2010) these crises impact directly upon the provision of public education in developing countries.

Social and educational inequality influences the teaching and learning in schools in a variety of ways. Among the consequences are a high drop-out rate, reduced aspirations and expectations of students toward the future, low performance etc. The socio-cultural contexts of many young people in marginalized areas represent, in addition to this, a wide spectrum of conditions which are adverse to learning, such as health issues, including insufficient nutrition and low quality food, involuntary pregnancy at a young age, drug addiction, a lack of medical attention, a lack of habits and strategies beneficial to learning, a lack of access to resources in their environment that allow informal learning etc. As one *Reading and Writing* instructor explains:

Tell me: How can you solve this problem in two semesters in the reading workshop when the kid never has the chance to have book in his hands, a journal, at least in this region they do not. [...] The only newspapers that we get here write "they cut his head off or they killed him like in this way or the other".

The essential principle of the modern education system is the notion of equity. Access to schooling is supposed to guarantee that all young people have the chance to construct a dignified life on the basis of their own effort and merit, independent of what their parents have or have not achieved and the cultural and social capital they inherited from them. A parent expresses the objective of education in the following way: *"... so that they will have a better life, a better future, since we did not have one, at least they should"*. The interviewees

often mention equity and equality as the goal of schooling²⁶ and see the curriculum functioning as an ideal that can counteract the disadvantages generated by social structures: “... *it is these differences [between individuals] that society establishes and that the curriculum balances out*” (key stakeholder).

Family background impacts in all countries significantly on the performance of pupils. Mexico surely has made great strides towards compensatory policies, but socio-economic stratification is still reproduced by a system that is characterized by a great variety between private and public, rural and urban, vocational and academic schools, an effect that is reflected in the results of educational investigations like PISA. It is therefore on the one hand necessary to standardize and homogenize the system, the curriculum and educational quality. And, on the other hand, the system and the curriculum have to be flexible in order to be adjusted to meet different local needs and potentials. One key stakeholder argues in relation to this that the aim is not to develop “... *a unique national curriculum, but a curriculum that allows each subject in his/ her region and according to his needs as a person, to have the level of success that is satisfactory for a human being*”.

4.4.2. Mexico’s Multicultural Reality

Mexico is a multicultural society with more than sixty indigenous cultures and their concomitant native languages. Indigenous communities are, unfortunately, to a much larger extent affected by socio-economic marginalization than any other social groups. Generally, they inhabit rural areas with few resources, rudimentary infrastructure and an almost complete absence of the means of communication and transport. Teachers and principals who are in contact with indigenous students note that they usually have great deficiencies in terms of knowledge and that drop-out rates are particularly high.

Various interviewees mention Mexico’s multicultural reality in general and Nayarit’s in particular. The way they talk about indigenous students, however, makes certain preconceptions and a lack of understanding apparent. These pupils are frequently described as ‘shy’ or ‘closed’: “... *there are kids who, completely indigenous, do not even talk to you; they do not know how to talk, let alone how to read*” (teacher). One Principal reports that he asks them to speak exclusively in Spanish while they are at school. Avoiding their native language, he argues, helps to assimilate them. There are also positive descriptions as in the case of teachers who work at the indigenous school and who describe their students as “*noble, respectful and hard working*”. Although positive, these are nevertheless essentializing descriptions that have the effect of homogenising a diverse group of people (‘the indigenous’).

In the indigenous school pupils from different communities learn in some subject areas in their native languages²⁷. One of the objectives of these institutions is to conserve cultural

²⁶ The government of Mexico City under the mayor Marcelo Ebrard invests heavily in education in order to increase the coverage and quality of the education system and thus contribute to more social cohesion and equality. Some of these initiatives are *Prepa Si* (grants for high school pupils), *Aula Digital* (the digitalisation of 95% of the public basic education system), *Niños Talentos*, as well as the distribution of free text books, breakfasts, uniforms and stationary.

²⁷ Classes are taught in Cora or Huichol. Students whose native language is Cora learn Huichol and vice versa. Spanish speaking children have to learn both languages.

diversity, languages and regional traditions through the means of cultural and artistic activities and specific subject areas. Students report for instance of one workshop entitled ‘Cultural Identity’ that none of them appears to like. This dislike might be caused by the highly conservative notion of ‘culture’ that seems to be employed in this form of ‘intercultural education’. From the interview data it appears that culture is understood as a static sum of essential and unchanging values, mentalities and traditions that characterize a given group of people. This notion does not do justice to the internal diversity of groups, of possible conflicts, individual differences and aspirations. Garcia Canclini (1995: 125) points to the need to attend to hybridity and heterogeneity in societies “where different cultural systems intersect and mutually influence each other”:

Only a social science that makes heterogeneity, the coexistence of various symbolic codes in one single culture and even in one single individual visible as well as the borrowings and intercultural transactions will be capable of saying something about the identificatory processes in this phase of globalization. Today identity, even in the broad popular culture, is polyglot, multi-ethnic, migrant and mixed by elements from a variety of cultures²⁸.

It is not surprising that the young people of these communities resist an education that has the intention to conserve ‘their culture’ while at the same time offering a minimal preparation that ties them down to work in the fields. They are supposed to become self-sufficient and self-reliant and not to migrate to the cities or the U.S.A. A truly intercultural education in contrast would be obligatory for all students independent of their belonging to a minority or the majority. It has an intrinsic value because it can open up dialogue, exchange and mutual learning and foster comparison and thus consciousness of different forms of living and thinking:

Other things being equal, those who are familiar with other cultures, or had the opportunity to develop their powers of critical self-reflection, or have reasons to be sceptical of their culture because of the unjust treatment it metes out to them, are likely to be less deeply shaped by it than others. (Parekh 2000: 158)

4.4.3. Future Expectations of Students

One father reports how his child thinks: *“I do not want to study anymore. I do not know, there will be thousands of students and thousands of professionals without jobs. There are so many unemployed already. I better stay here and open a business.”* The reason for the demotivation or *“apathy”* many teachers, parents and principals observe is due to the current difficult economic situation in which a large number of those who finish school cannot find a job or only temporary ones:

Even if they leave school with a good education, even if they have vales, unfortunately the system does not offer opportunities for them to apply their knowledge. Only those who know someone, who have at least some contacts can insert themselves into the world of work as a professional. But these are very few. The majority work as taxi drivers, they transport goods, something below what they actually studied. But this is

²⁸ Translation from Spanish to English through the authors.

not a problem of the education system, it is a problem of the labour market in our country. (Parent)

Strategies are needed that allow students to observe and gain professional practice in real companies and to get to know how to use up-to-date technology. In addition to these practical competencies and skills they also have to be taught *"how they themselves can create their own jobs. They have to be given means to become proactive"*. Together with business strategies, parents emphasize flexibility as a crucial trait for professional success.

Different groups of students from different schools also have different future expectations. One principal of the two distance learning schools comments that one objective of Upper Secondary Education is to *"show them means that enable them to defend themselves in life"*. The Principal of the other distance learning school speaks in very similar terms:

To educate students, i.e. to guide them so that at the end of the bachelor they will have the means to defend themselves, to defend themselves in life, either when they study or when they work.

In the private school, students seem to have very different expectations and references to the global market place emerge:

To foment the necessary competencies in students so they can develop themselves in a globalized world. I am speaking of languages here, of technology, of values and a series of very specific aspects inside of the different knowledge areas that allow the students to defend themselves and be competent in this realm. (Principal)

The students at this school do not doubt that they will continue their studies at university and for this reason they constitute the only group that does not see much sense in obtaining a certificate after each of the three years of the *bachelor*. The self confidence is also reflected in the fact that these students seem to be able to admit their own limitations and ask for the teacher's help, contrary to other groups of students, particularly the ones from the indigenous communities: *"It is the support they have at home. Their parents have showed them that they should not be afraid to talk and to ask for something"* (teacher). These students express the wish that they do not just want to be educated to become employees. They want to become employers and business owners. However, one parent declares himself dissatisfied with the vocational component because the school creates the idea in students that they will be owners of business and not creators of jobs.

4.4.4. Drop-Out Rates

Many of the School Principals indicate that the drop-out rates in various subsystems and schools are very high (in some institutions it is more than 50% in the first year). Among the reasons given are the economic situation of students and their families, a lack of motivation often related to a lack of perspectives, personal and family issues, pregnancy or because they fail the examinations *"which is preoccupying, as well, because this is due to the fact that they have not acquired the basic knowledge in the previous educational level and they come to the Upper Secondary and cannot adapt to the system"* (Principal).

4.4.5. Organized Crime and the Deterioration of Civil Society

The interviews were conducted between January and March 2010, i.e. before the conflict between different groups of drug gangs escalated in the State of Nayarit and culminated in June and July. This term schools were closed three weeks early and public life in the streets was severely reduced. Even though violence still had not erupted at the time of the investigation it was one of the topics, together with the deterioration of values in society, which came up several times in the interviews. It is probable that it would have become one of the central issues if the interviews had been conducted a few months later. One group of students mentions that they would like to learn *"to protect themselves, to have a shield that protects us from all this 'beating' that we receive"*. They propose *"a workshop that shows us how to prevent, I do not know, from shooting for instance, for security"*. Some students in another group comment: *"I am going to dedicate myself to the drug business"* and others think: *"Right now the best thing is either the drug business or the government. These are the real sharks, if you are not in the drug business or the government you are nobody"*.

The rector of the UNAM, José Narro Robles, warned in December 2009 of the risk that there are 7 million young people in Mexico²⁹ who neither work nor study. These so-called 'Ni-Nis' (= NI estudian, NI trabajan, they NEITHER work NOR study) represent the "waiting list for jobs in the drug business" according to the rector (Martinez 2009). In the face of the problem of organized crime, he added, it is of utmost importance to invest in education and employment so that students have options. In addition to this, "we should change our range of values and give more weight, interest and priority to secular issues like solidarity, diligence, honesty and loyalty":

If we continue confusing what success means for a person, if we want to believe that a successful person is the one who gains a lot of money in a very short time, then we are wrong. And this has to do with organized crime and the search for easy ways that lead nowhere.

The attitudes Narro Robles describes also surface in the conversations with students. One group for example explains that their goal for the future is surely not to work: *"Because we do not want to work later on, we prefer to be 'upper category'"*. One Principal describes his pupils as not being intrinsically interested in studying: *"the majority simply wants to pass. It is a tendency towards minimal effort"*. Generally, students show little interest in activities or subjects that are not graded. For this reason another Principal asks: *"How can we make students more responsible for their professional and human education?"*

In the context of the increased violence and organized crime and the economic crisis that has caused an elevated rate of unemployment, particularly among young people, education in general and education in values in particular acquires a new meaning and importance, as Vargas Lozano (2010), the coordinator of the *Observatorio Filosófico de México*, suggests:

Given the current conditions in this country which affect especially young people, should not we offer a well-defined course in ethics? One that is secular and not subject to doctrines where we talk about topics like drugs, drug trafficking, cloning, assisted death, inequality or the crisis in values?. Should not students know about philosophical

²⁹ According to the Mexican Institute for the Youth.

concepts that have molded our society from pre-Hispanic to contemporary times? And should not they have elements to develop their own thinking and ways of formulating it?

5. Summary and Proposals

The present investigation had three purposes related to the current and potential characteristics of the Upper Secondary Education system:

- i. to collect data about preferred curriculum principles for the upper secondary curriculum age-group in Nayarit;
- ii. to collect data about curriculum models and teaching approaches used currently in the various subsystems in Nayarit at the three levels (1st to 3rd year);
- iii. to begin the process of dialogue and reaching an agreement about the curriculum and its associated pedagogy at these three levels with all relevant stakeholders.

The contents and methodological processes of a curricular proposal are commonly justified by reference to their relevance, importance and utility for individuals, society and the economy. By definition, these perspectives can be diverse and depend on the social positions of actors, their knowledge and theories, their ideologies and beliefs.

Curriculum design, the creating of educative environments in which students are to dwell, is inherently a political and moral process. It involves competing ideological, political and intensely personal conceptions of valuable educational activity (Apple, 1979)

Initial analysis was conducted therefore by identifying the accounts and evaluations that respondents provided in relation to the concrete questions they were asked (first order themes). In a second step relevant and salient second order themes that emerged from the interviews were identified and their relationship to the first order themes established. This way, differences and similarities between views of different individuals and groups of stakeholders could be brought into perspective and thereafter be interpreted and analysed from a variety of theoretical perspectives. Rather than expressing opinions or ideological stances that contradicted each other participants seemed to differ in terms of their respective position, knowledge and interests and thus illuminated the same complex phenomenon from different angles. Entrepreneurs, for instance, focused on the vocational component of this educational level and the relation to the productive sector while educational leaders and academics tended to emphasize more social objectives. Those directly involved in schooling, i.e. students and their parents, discussed teaching and learning at the level of the individual.

The range of factors that impact upon educational quality included pedagogical topics (for instance the lack of time to cover the whole programme, the heterogeneity of the student population, the work of the academies, the necessity for continuous professional development of teachers, the aspirations, hopes and attitudes of students), institutional and inter-institutional aspects (the relation between administration and academia, the control of educational quality, the financing of schools including the necessity for and forms of fundraising, the resistance of administrators towards change etc.) and the socio-economic

situation (the real opportunities that different schools and subsystems offer young people, the situation of the labour market and its effects on the future expectations of students etc.).

The following summary is structured in a similar fashion to the presentation and analysis of the interviews. It begins with the curricular and academic level, including the current and desired curricular models and pedagogic approaches (*micro* or *curricular level*), moves to the institutional and inter-institutional practices and relations that shape the actual teaching and learning and possible future ones (*meso level*) and concludes with the socio-economic context the upper secondary education system is embedded in (*macro level*).

5.1 The Curricular or Academic Level

- The Humanities and Social Science Subject which were eliminated before or through the Reform 2008 should be re-instated because the lack of knowledge in these areas not only puts students at a disadvantage as individuals and members of society but also as potential applicants for university.
- The comprehension and production of written and oral text and expression should be strengthened so that students are better prepared for the vocational and propaedeutic component.
- A first foreign language, English, should be taught throughout the three years of the *bachelor*.
- Knowledge of and competencies in information and communication technology should be regarded as an essential part of the curriculum across the three years of the *bachelor*.
- Learning in the Natural Sciences, Computer Sciences and the Vocational Component should be strengthened through the application of the knowledge in practice, for instance, through the elaboration of interdisciplinary projects and internships. This requires extensive investment in laboratories, workshops and equipment.
- The educational offer should be extended and should include business competencies, health/ sexuality education, ecology/ environmental protection and the arts and culture. Young people should be encouraged to practice sports and adopt habits beneficial for a healthy life (including gender relations, family planning, eating habits etc.). This could also help to avoid addictive habits and socially undesirable behaviors.
- The subjects *Research Methodologies* and *Greek and Latin Etymologies* should be taught from the first semester onwards because they establish fundamental knowledge for all subsequent knowledge areas.
- It is important to improve the quality of the subject *Vocational Orientation* and the tutorials and teach them from the first semester onwards, preferably already at the secondary level. This would help students in their search for and definition of their professional and academic goals. To this end, teachers need appropriate training to support students in an informed, pedagogical and motivating way.
- The contents of the programme should be revised so that objectives can be achieved, in particular in relation to actual class time. More concretely, class time and contact hours should be extended, particularly in the first year, for example on Saturdays.

- Students should be enabled to search for, discriminate and select among the abundant information on the internet. They should be able to analyze, synthesize and extract the information that is most relevant for them or for the task at hand. This implies the teaching of digital genres.
- An education in values (such as respect, responsibility, order, discipline, honesty and a critical and social consciousness, among others) is fundamental for the personal, social and professional development of students. It is important in the current social context characterized by a loss of values, social disintegration, and an increase in violence, organized crime and drug addiction. Education in values should therefore be included in the programme and guided by contextual relevance and flexibility.
- Since values cannot be formed in schools alone, alliances with parents and communities need to be built up that pursue common objectives.
- Regional and national identities should be strengthened. It is important that students know more about Mexican history and culture(s) and develop intercultural competencies.
- Students should be offered the choice to learn an indigenous or a second foreign language apart from English.
- It is necessary to establish and deepen existing links with the productive sector so that students have the opportunity to realize internships and gain practical professional knowledge.
- The educational offer of the vocational component needs to be more tightly linked to the demands of the labor market. It is therefore necessary to conduct market research with the aim of defining those careers and competencies that are and might become important for the economic development of the region and the country.
- The interrelations between the contents of the curriculum have to be deepened in theoretical and practical terms (currently, the majority of teachers does not know the programme of study of other subject areas and other levels of the *bachelor*). The academies could offer a space where awareness of the diachronic (preceding and subsequent topics in the same subject area) and the synchronic linkages (in relation to other subject areas which are taught at the same time) will be raised.
- Teachers should receive training in order to amplify their general and disciplinary specific pedagogic resources and strategies and to teach in a more dynamic and progressive way.
- At the same time strategies have to be designed that foster a change in the current school culture that is still based on rote learning, memorization and discipline. One objective is to change students' attitudes towards learning and assessment.
- The written examination is still the predominant assessment instrument although it is often not related to real learning and the contextual relevance of knowledge. It should be replaced by a variety of forms of evaluation, particularly formative ones.
- The didactic teaching technologies that teachers use are not appropriate for meeting the needs of students and institutions. Above all they are too expensive in terms of time and sometimes require resources students and teachers do not have or cannot afford.

5.2 The Administrative and Institutional Level

The upper secondary system is highly diverse. Schools might be under the federal, the state or a mixed authority in relation to financing and educational policies. The educational offer, particularly the vocational component is equally diverse, as are the conditions under which the schools operate, among them the infrastructure and resources, the number of students attending the school, the number of teachers and teacher-student ratio, the professional background and level of professional development and competence of teachers, the number of administrative and manual personnel, the level of knowledge and competencies that the students have acquired at previous levels, etc. Several proposals have emerged in relation to the latter problem, for instance:

- to extend the time of the basic component in order to strengthen and deepen the knowledge and competencies acquired at previous educational levels;
- to introduce a propaedeutic course, a semester or a year before students enter the first year of *bachelor* with the aim of bringing students to the same level;
- to extend the contact time in general, for example, through Saturday classes;
- to link the upper secondary level with basic and higher education;
- to establish different groups in specific subject areas according to levels of competence, above all in English and computer science where students arrive with very diverse background knowledge.

The institutions are characterized by a *weak fit* (Weick 1982) between the administrative and academic part, i.e. they are not well coupled. This means that no clear rules are established between the two spheres, the fulfillment of these rules is not monitored and there is no feedback that could lead to an improvement of the system. For this reason, stakeholders suggest that:

- A system is established that guarantees the objectivity, efficiency and impartiality of administrative processes among them the distribution of resources and positions for teachers and administrators and the evaluation of teaching and learning.
- In order to guarantee a free transfer of students from one school to another, transparent accreditation and revalidation processes have to be agreed upon by all the subsystems and put into place. This system has to apply both to the homogenized basic component and the diverse vocational strands.
- The State Authorities should know the curriculum and its objectives well and be committed to achieving them.
- They should up-date and adapt the objectives and processes to allow the meeting of regional needs.
- They should make sure that teachers have the required profile, teach at a qualitative high level and be committed to their work; in short, that appropriate quality-assurance systems are established.
- Collaboration and interdisciplinary work between teachers should be encouraged.
- A teacher development programme should be established that links in a flexible

manner the reality of the classroom to the objectives, contents and processes of the curricular proposal.

- Teacher evaluation is crucial if teaching and learning is to be improved. It can be realized either through students themselves or an external agent.
- External examinations like the ICATEN or the CENEVAL should either become the standard in all subsystems or should be abandoned. Given the profound differences between regions, institutions and contexts in which students learn, a mixed, formative and summative evaluation is preferable.
- Each year of the *bachelor* should be certified. In the case of having to leave school for economic or other reasons, such a certificate would help students to find employment.
- It is important that parents become more involved in their children's education. Periodical meetings with parents are a basic element to ensure this cooperation.

5.3 Educational Policy

The RIEMS (2008) has been adapted by the different subsystems in very diverse ways. Some schools are already applying the curricular framework, others mix it with previous Reforms and for others the implementation does not seem to be viable due to their lack of infrastructure and teachers who are inadequately prepared. In general it seems that there are neither transparent rules nor is there administrative supervision of the implementation. The experiences with this curricular framework indicate the following:

- The Reform does not take into account the reality in schools which is often characterized by a lack of resources, for example the lack of laboratories, the high number of students per class and the economic background of students. In order to reach the objectives of the Reform extensive investment in infrastructure is needed.
- The relation between any reform and its realization in the classroom is highly complex because behaviours and forms of interactions tend to persist. Research into the real effects of the Reform on teaching and learning is necessary as well as an investigation of the efficiency of the current diplomas for teachers and or administrators.
- Improvements need to be made to the infrastructure of schools particularly in the marginalized areas.
- Statistics about the number of teachers who work at the upper secondary level, their professions and level of competence as teachers, the number and forms of existing contracts and concomitant salaries are necessary to ensure transparency and a precise diagnostic of the situation.
- The social status of teachers and the reputation of the profession should be enhanced. The profession and the concomitant salary have to be made attractive for young people who have finished their pedagogic studies and are committed to teaching.
- Intercultural education should be obligatory for all students independent of their belonging to a minority or the majority. Dialogue, mutual learning, comparison between and thus consciousness of different forms of living and thinking should be fostered in order to do justice to the multi-cultural reality of Mexico.

- In order to ensure equality of educational opportunities, the curriculum should on the one hand be homogenized but at the same time remain flexible and adaptable to regional differences. Such a contextualized curriculum could again be based on a system of transparent accreditation and revalidation.
- A competency approach aligns teaching with the agenda, needs and perspectives of the labour market. In the context of the Reform an investigation should be conducted that analyzes the economic sphere in order to up-date the curriculum. At the same time the social status of the technical professions needs to be raised and made more attractive for young people.

The ambivalent objectives of the system – to prepare students as technicians for the labour market on one side and on the other for university – seem to be reflected in a division between institutions. Entering a technological school is in many cases terminal while access to a general *bachelor* with its strong focus on the propaedeutic component opens up possibilities to continue at the university level. In this context it is important to note a general geographical advantage for those students who attend schools in the political and economic centre of Nayarit where schools seem to count with a better infrastructure and families on average have a better financial background, factors which in turn are reflected in a higher level of academic achievements. In the schools which are further away from the political and economic centre, students are educated through more traditional methods in institutions with a poorer infrastructure. The student population in these areas seems to be more culturally heterogeneous but also more homogeneous in terms of socio-economic class. Given that those who have more resources also have a better educational offer, this could therefore lead to the conclusion that the education system in Mexico still reproduces a socio-economic stratification and hinders upward social mobility. Social inclusion and equitable access to educational opportunities are therefore still on the agenda and have to be addressed by any curricular reform.

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