**Telesecundaria: Students and the Meanings They Attribute to Elements of the Pedagogical Model**

Rafael Quiroz Estrada
Translated by Trena Brown

**Abstract:**
The purpose of this article is to analyze the meanings *telesecundaria* students attribute to various elements of their school’s educational model in terms of their learning and schooling process. Supported by this analysis, the final part of the article discusses the evaluation of *telesecundaria* in comparison with other types of secondary education. The paper is a partial report on ethnographic research carried out at two semi-urban *telesecundarias*, with fieldwork consisting of classroom observation and group interviews with students.

**Key words:** *Telesecundaria*, student interviews, educational model, ethnographic research, secondary education.

**Introduction**
The purpose of this article is to analyze the meanings *telesecundaria* students attribute to various elements of their school’s educational model in terms of their learning and schooling process. Supported by this analysis, the final part of the article discusses the evaluation of *telesecundaria* in comparison with other types of secondary education. An attempt is made to contribute to filling in two major gaps in educational...
research: the absence of studies on students and the lack of research on telesecundarias.

In Mexico, there are four types of secondary education: general secondary schools, technical secondary schools, secondary school for workers and telesecundaria. This paper is concerned with the final type.

According to the Secretaría de Educación Pública ("Ministry of Public Education"), this “type has been consolidated as one of the most efficient for expanding coverage and searching for fairness in the access to education at this level” (SEP, 1998). Telesecundaria education is undoubtedly the type of secondary education that has grown the most in recent decades. To illustrate this situation, Chart 1 shows the growth trends of telesecundaria education in comparison with other types, in the ten years from 1990 to 1999. The most significant factor is that during this period, telesecundarias more than doubled their enrollment, while the other types of secondary schools grew from 5.7% to 31.1%. Telesecundarias increased their share of secondary enrollment from 11.2% in 1990 to 19% in 1999. That year, almost one out of every five students was attending secondary school at a telesecundaria. During the same period, telesecundarias increased their share to more than one-half of the schools of all types; i.e., in 1999, there were more telesecundarias than general and technical secondary schools combined.

The growing importance of telesecundaria has not been significantly reflected in educational research. According to QUIROZ (2000), although research on secondary education in Mexico is scarce, in 1990, some studies covering the topic were published. Some of them are ethnographic and are focused on scholastic processes in the classroom. Such is the case of projects by QUIROZ (1991, 1994, 1996, 1998 and 2000). Also related to this topic are the master's theses of DÍAZ (1996), CANEDO (1998), RODRÍGUEZ (1999), NIEVA (1999) and the study by HERNÁNDEZ (1995).

Chart 1
Growth Trends in Telesecundarias and Other Types of Secondary Schools (1990-1999)
<table>
<thead>
<tr>
<th>Type</th>
<th>Enrollment</th>
<th>% Difference</th>
<th>Schools</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990</td>
<td>1999</td>
<td>1990</td>
<td>1999</td>
</tr>
<tr>
<td>General and for workers</td>
<td>2,598,097</td>
<td>2,745,722</td>
<td>7,656</td>
<td>9,189</td>
</tr>
<tr>
<td></td>
<td>5.7</td>
<td></td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>1,122,000</td>
<td>1,470,596</td>
<td>3,149</td>
<td>3,903</td>
</tr>
<tr>
<td></td>
<td>31.1</td>
<td></td>
<td>23.9</td>
<td></td>
</tr>
<tr>
<td>Telesecundaria</td>
<td>470,093</td>
<td>992,585</td>
<td>8,423</td>
<td>14,420</td>
</tr>
<tr>
<td></td>
<td>111.1</td>
<td></td>
<td>71.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,190,190</td>
<td>5,208,903</td>
<td>19,228</td>
<td>27,512</td>
</tr>
<tr>
<td></td>
<td>24.3</td>
<td></td>
<td>43.1</td>
<td></td>
</tr>
<tr>
<td>Share of telesecundarias in enrollment and schools</td>
<td>11.2 %</td>
<td>19.0 %</td>
<td>43.8 %</td>
<td>52.4 %</td>
</tr>
</tbody>
</table>

Other important studies during this period were the projects by Santos (1999) on the perspectives of the demand for secondary education, and research by Sandoval (1998) on subsystem and schools, as well as the relations between the institution, the subjects and their practices.

The most extensive research on telessecundarias was published in 1982. It deals with various projects compiled under the title of *Televisión y enseñanza media en México: el sistema nacional de telessecundaria* (Grupo de estudios sobre el financiamiento de la educación, 1982). Since that date, secondary school has been transformed, and such work serves only as an historical reference.

None of the research carried out in the 1990s deals with telessecundarias, and only two contemporary projects on secondary school focus on telessecundarias: the work of Santos and Carvajal (2001) on operating telessecundarias in marginated rural zones, and that of Santos (2001) on the educational opportunities in telessecundaria and the factors that influence them. These studies will be analyzed in the final part of this article.

Presented here is a partial report of a research study on the meaning students attribute to some elements of the pedagogical model of
telesecundaria, based on their direct experience. The paper is structured in five sections: the first describes the methodology employed; the second reviews synthetically the conceptual referents on which the study is based; the third gives a brief description of the pedagogical model of telesecundarias and the dynamics generated in TV-classrooms; the fourth analyzes the meaning students attribute to various elements of telesecundaria in their schools; and the final section presents a debate on the evaluation of telesecundarias in comparison with other types of secondary education.

Methodology
The research was carried out with an ethnographic perspective of two semi-urban telesecundarias in Estado de México. This study considers ethnography more as a set of techniques than a perspective, in which techniques depend on the object of study, and as Rockwell (1987) indicates, “the technical options are articulated by the person (researcher) who handles them.”

Studying the daily life of local reality implies a process of “documenting the undocumented” (Rockwell, 1987), and makes it necessary to observe and log what social actors say and do. This research utilized what Woods (1993) referred to as nonparticipative observation, in which the researcher acts only as an observer of situations of interest for constructing the object of study. The process is complemented by collective interviews with students from the three years of secondary school. The entire procedure of observation and interviews is supported by audio recordings.

Thirteen classroom observations were carried out in four groups of the second and third years of secondary school. The compiled information was supplemented by twelve collective interviews with four students in each interview, and an approximate duration of fifty minutes. Half of the 48 students interviewed were females, and the other half, males. Due to the characteristics of the object of study, the analysis is based primarily on the material collected from the interviews.

Conceptual Referents
The basis of this study is Schutz' ideas (1974) regarding the subjective interpretation of meaning. According to this author, understanding social action implies identifying the meaning that the actor attributes to his action. Meaning is understood to be the projection of the effects that an action will generate, before the action is carried out. The theory postulates that a decision regarding the alternatives of action is made with reference to the subjective significance present in each actor's knowledge bank at the time he is projecting the action.

Subsequent studies of this phenomenological conception by Berger and Luckmann (1997) suggest that “meaning (Sinn) constitutes awareness” and indicate that awareness is always the awareness of something, and exists only to the degree it directs its attention to an object or goal. These authors point out that in the perception, memory or imagination surrounding a nucleus, these objects appear to be specific topics that are articulated in a thematic field. According to this logic, specific experiences acquire meaning only when the individual is aware that a relationship exists among various experiences (Berger and Luckmann, 1997:31).

This idea suggests that building the meaning of an experience refers to the accumulation of the awareness of meanings from previous experiences, which Luckman in another study conceptualizes as a system of subjective relevance. “An individual's system of relevance refers to the total connection of his interests, priorities and urgencies determined by the world of life” (Luckman, 1996).

The multiple specific experiences students retain in their awareness are related to other experiences in the thematic field of their schooling process. The proposed concept of meaning permits the researcher 1) to analyze the comments made by students in the interviews as the retrospective meaning they attribute to their experiences with some elements of telesecundaria, and 2) to infer how different experiences--not only from telesecundaria but also from primary school or secondary schools of another type--are related in their awareness.

As a result, students' value judgements regarding the different elements of the pedagogical model are based on each student's subjective system of relevance, and thus refer to students' interests and urgencies in their world of life. This article refers only to a restricted setting of student meanings in the scholastic process of telesecundaria, in which these
interests and urgencies are oriented essentially to student learning and survival in the world of school.

The Educational Model of *Telesecundarias* and the Dynamics of TV-classrooms

This section presents a brief description of the academic model of *telesecundaria*, in terms of the elements that integrate it, the function assigned to each element in the official proposal, and some dynamics that are generated in the TV-classroom. According to Berlanga (1996):

[].. over twenty-five years, the development and improvement of the concept of *telesecundarias* has been notable: there is enormous distance between the first conceptualizations of the model that made the teacher a simple monitor in the students' relationship with the television, and the current ideas that propose multiple educational relationships in the learning process.

After 34 years of *telesecundaria* in Mexico, today's academic model has been fully established.

*Telesecundaria* uses the national curriculum for secondary school, and the diploma it grants is equivalent to other types of secondary school. The differences reside in the academic model, and essentially in the mediating elements between scholastic content and the students. In other types of secondary schools, the fundamental mediators between content and students are teachers and textbooks. In *telesecundarias*, on the other hand, mediators are different and more varied: televised classes, the group's teacher, the book of basic concepts and the learning guides. Described below are the functions the official proposal assigns to each mediator, as well as some of the characteristics of mediators, and some of the dynamics generated in TV-classrooms when each mediator is put into operation.

The first mediator between the contents of the curriculum and students is the television program. Its function in the official proposal is to develop educational contents through dynamic and interesting messages (*SEP*, 2001). Each television program develops a lesson that covers a topic on the official course syllabus; the program has a fifteen-minute duration, somewhat less than one-third of the total 50 minutes in the session. Thirty-five minutes remain for other session activities. Since the program is transmitted by satellite, the scheduling is rigorously defined and is the
same for the entire country. The observations carried out for this study proved that the programming and didactic sequence of the official proposal imply routines that can vary from one group to another, depending on the teacher's style and the scheduling of the televised lesson during class time; nonetheless, each classroom shows stable forms of work in terms of time distribution. On rare occasions, some programs are not seen, and the teachers may use the time to work on the contents of another subject they consider a priority.

The television program may be shown during different parts of the class, depending on the relation between the class schedule and the time of transmission. For example, first-year mathematics is always at the beginning of the session, while third-year mathematics is at the end. As a result, teachers use different dynamics in handling course content: if the television program is at the beginning, teachers use it as the basis for developing content; in contrast, if the television program is showed at the end of the class, the teachers must present the contents directly.

In most teaching processes, the teacher is a central mediator. The proposal for telesecundarias states: "the teacher conducts learning but is not the primary source of information. This function corresponds fundamentally to the television program and to the printed material. The role of the teacher is to motivate, orient and impel the students' activity towards achieving the established educational goals" (SEP, 1997). To support his work, the teacher has a teaching guide that contains general pedagogical orientation for telesecundaria and presents teaching suggestions for each subject (SEP, 2001).

It is necessary to emphasize that in telesecundaria, there is a single teacher per group, in contrast with other types of schooling in which each teacher is a specialist in his subject. This structural characteristic radically modifies the institutional conditions of teaching. The fact that the teacher works with a single group with a reduced number of students--more similar to an elementary school situation--plays a central role in configuring the teacher's identity (Quiroz, 1987). In other types of secondary schools, the referent of teacher identity is the subject, while in elementary and telesecundaria schools, the referent of teacher identity is the group of students.

The above assumes two dimensions of the teacher's role. On one hand, since the teacher's role is a mediator of content, and the teacher is not a specialist in any subject, his function will be to coordinate the learning
process, supported by other mediators and the teaching guide. The implication is that the teacher, rather than teaching contents directly, would have to design activities to articulate the other content mediators into a teaching project for his students.

On the other hand, since the teacher knows his students personally, he can assume the role of a guide for each student in his overall schooling process. A teacher can identify the strengths and weaknesses of each student, in a style similar to elementary school, and as a consequence, offer specific support according to what he deems necessary for each concrete case.

The third mediator between students and program contents is the book of basic concepts. According to the official proposal, the book's function is to present the essential elements of information for developing the program contents of each subject. It is organized like an encyclopedia, and is divided into eight thematic nuclei for the school year (SEP, 2001). In general terms, the book's topics and the contents proposed in the official programs of each subject correspond. Each book is divided into four volumes per school year. When students finish a volume, they must return it for use by the following generation of students. The book is roughly the equivalent of the textbooks of general secondary schools in terms of informative content, but not in terms of learning activities.

Class observations showed diverse uses of the book of basic concepts: for reading aloud to the group and for individual reading, but most frequently for finding the answers required in the learning guides.

The fourth mediator is the learning guide. The official proposal states that "it is the guiding line of learning and an organizational instrument of the teaching/learning process. It includes activities and specific exercises that students can carry out individually, as teams or with group participation" (SEP, 2001). The guide contains a proposal for structuring student activities in a standardized manner in each session, by means of a sequence that attempts to synthesize with five logos. The first logo refers to watching the television program. The second suggests reading the book of basic concepts. The third involves making an analysis and synthesis of the information on the television program and reading the basic concepts. The fourth requires applying what has been learned. The final and fifth logo is the evaluation.
This rigid sequence of activities was rarely followed in the classes observed for this study. Rather, each teacher defined his own strategies for using the guides, although answering the questions in the guides was generally emphasized. In some sessions, for example, the students watched the television program and then reinforced it with questions about content; answering the guides remained as homework.

The demands of the guides are varied: to solve problems and algorithms, to answer questionnaires, write summaries, make comments, explain, etc.. Each subject has marked tendencies that favor a certain type of demand. In mathematics, for example, most of the activities involve solving problems and algorithms, while history and geography emphasize answering questionnaires. In the classes observed, the teachers almost always favored activities in which students had to write in the guides or in their notebooks, and activities such as commenting or explaining were infrequent.

The guides are essential for physically objectifying student work, and represent the instrument for students to verify to the teacher that they have worked to learn the subject. The teachers frequently check the guides answered by the students and take them into account for assigning grades; they also use the guides to prepare exams and occasionally copy exercises from them.

The learning guide articulates learning dynamics with other mediators: in first place, because it is the fundamental instrument of support for the teacher in programming activities; in second place, because it is the physical material for objectifying student activity; and lastly and perhaps most importantly, because answering the guide articulates the process of assigning grades, which is a priority for students. Students were frequently observed taking notes while watching the television program of what they assumed would be necessary information for answering their guides. When answering the guide, they often had the book of basic concepts open in order to locate the required information. And when teachers asked questions, the most usual reference was the guide. The learning guide plays a central role in the telesecundaria learning process, similar to the role of textbooks in other types of secondary schooling (Quiroz, 2000).

The Meaning Students Attribute to Elements of the Pedagogical Model of Telesecundarias
This section analyzes the meaning that students attribute to certain characteristics of \textit{telesecundaria} in their schooling process. The idea of meaning developed in the second section is the conceptual referent on which analysis is based. The presentation is divided into two sections: the first presents the meaning that mediator complementarity has for students, and the second section analyzes the meaning of the teacher and the group of students.

\textbf{Mediator Complementarity}

In the interviews, the students assigned different priority functions to each mediator of scholastic content. Although in some cases, the attributed functions are combined, the tendency is for students to identify one or two priorities for each mediator.

The televised classes are attributed with two priority functions. The first is the presentation of the topic, as two students expressed in an interview.

\begin{quote}
Ana: Because if we do not see the television program, to begin with, we do not know which lesson is next and we do not have a general idea of what the lesson is going to be about ($E_{F1-6}$).
\end{quote}

\begin{quote}
Beatriz: The televised class gives us an idea, more or less, of how the class will be carried out ($E_4-1$).
\end{quote}

The second function assigned to televised classes refers to a clear explanation and source of information, as suggested by two students in an interview.

\begin{quote}
Beatriz: The television program helps me a lot in explaining the topic of the day, and it is like a source of information for me ($E_{4-3}$).
\end{quote}

\begin{quote}
Dorisela: It is very important for me to see the televised class, because it is very explicit and any questions we might have are cleared up with the televised class; in other words, it helps us a lot ($E_{3-2}$).
\end{quote}

The students attach importance to the scheduling of the televised class within the session. Depending on scheduling, the evaluation of the mediator may be contrasting. When the program is shown at the beginning, the students value it highly, but when it is shown at the end of the session, according to one student, “the program comes at the end and in this case the program is unnecessary”. The teacher is also
attributed with two priority functions: first, as the person primarily responsible for explaining, as expressed by a student.

Dorisela (responding to a question about the teacher): Yes, the truth is that it helps us a lot to repeat all the classes because that way we can learn what was explained very well, better than what the [televised] class tells us (e2-7).

The teacher function assumed to have greatest importance refers to "clearing up questions", as shown by the following interview excerpts.

Betty: The teacher gives us more about what the topic is about. She explains it to us more. For example, if we have questions, she answers them, which is not possible with the television program (e4-3).

Arlett: The teacher is also important, because the teacher explains and answers your questions (e6-12).

The book of basic concepts is attributed with the function of being a permanent reference. One student expresses its use at home.

Abigail: Yes, I think it is more useful at home that at school because at school the television explains and you understand. But at home, you do not have the television to explain it to you and you can use the [book of] basic concepts (e1-5).

Another student expresses more emphatically the idea of a permanent reference, and adds that it is a fundamental resource for answering the learning guides.

Alicia: When we do the guide, if we do not understand, we turn to the [book of] basic concepts, which contains the information (e2-9).

The students confer two functions on the learning guide: verification of what they have learned and a guide for exams.

Interviewer: Nacho, how do you use the guide?

Nacho: It helps us prove what we learned that day, or what we understood from the class (e1-6).

Jessica (answering a question about the guide): We have to answer what is there because we already know it. It is like a demonstration of what has been learned (e4-7).
Beatriz: Well, right now in the exams I am realizing that some of the exercises in the guide are passed over to the exams, and that we can use the guide to study for the exams (E4-7).

Beatriz' comment was proven by the class observations: an activity on the exam for the fourth bimester in mathematics is identical to that of session 139 in the learning guide.

Although the students identify different priority functions for each mediator, their viewpoint of the complementary nature of the set of mediators is most important; according to this logic, the students see multiple relationships. The first identified in the interviews was the students' idea of the complementarity of the televised classes and the teacher.

Carmen: The television illustrates it for us, and normally gives us examples that we can take into account when we do our exercises. And the teacher is like a complement of the television; or the other way around, the television is a complement of the teacher, depending on how the teacher is putting it into practice (E5-12).

Another complementary relationship involves the television program and the book of basic concepts.

Abigail: I think at school that the television explains it to you and you understand it. But at home, you do not have the television to explain it to you and you can use the [book of] basic concepts (E1-5).

The students also value the relationship between the book of basic concepts and the learning guide.

Carmen: The way you have to do it comes step by step. The guide just gives you exercises and the [book of] concepts is like all of the information.

Interviewer: Yes, like all of the information...

Victor (interrupting): Well, when I do not understand some classes and the topic seems difficult, I get out my [book of] concepts and I can more easily find the questions that come in the guide. (Alma nods her head in agreement with Victor.) (E1-5)

One student clearly expresses in an interview the advantages of the complementarity of all the mediators:
Guadalupe: Well, I like it a lot because it is complemented well and it is much better and much easier, because now we can have a television, a teacher and books (ε2-18).

An interesting discovery made during fieldwork was that some students had previously attended general or technical secondary school. These students expressed clearly the advantages of the complementarity of telesecundaria in comparison with other secondary schools. The following interview fragment illustrates this point of view.

Arlett: I feel like you learn better here at the telesecundaria. Because I was in a normal secondary school and I thought it was a little harder.

Interviewer: Why did it seem harder for you, Arlett?

Arlett: Well, I think it is easier in telesecundaria because at the normal secondary school there is no television and the teacher does not explain. And the books do not give as much information as our [book of] basic concepts (ε6-12).

The advantages the students attribute to the complementarity of the mediators for their learning, and the comparisons they make with other types of secondary schools, imply that they value telesecundaria highly, have a feeling of belonging, and identify with telesecundaria.

The Teacher and the Class

The students consider having only one teacher an advantage in telesecundaria. A student who had previously attended a technical secondary school expressed this viewpoint clearly.

Victor: In the technical secondary school they just change teachers. Some teachers give you the class or explain the topic well, then another teacher comes and just gives you his topic. He puts it on the blackboard and you write it down and he asks you questions and at the end of the year you have not understood anything. And here at the telesecundaria you have more chances to learn, to get along well with the teacher (ε1-13).

The above excerpt refers to the possibility of having a more personal relationship with the telesecundaria teacher, an issue that is seen as almost impossible in other secondary schools.

When the students compare telesecundaria with other types of secondary schools, they mention the advantage of the sole telesecundaria group
teacher versus the student effort required to adapt to several teachers in other secondary schools. The following excerpts express this feeling.

Arlett: In normal secondary school, there are eleven teachers because there are eleven subjects. It was impossible, because a teacher would explain one way, and then go on to the next group. And if you understood or did not understand, it was the same. One teacher would leave and the next one would come in to give the next class, and so on. They did not explain things to us very well (e6-12).

Erika: Well, I suppose that it is better here than in a general secondary school because with so many teachers I think they get confused (e7-12).

It is possible to infer that having a single group teacher means less student effort is required to adapt than in other types of secondary schools. One study indicates that in general secondary schools, student efforts to adapt to the changing conditions of the heterogeneous requirements, personalities and styles of eleven teachers each school year are detrimental to in-depth work on scholastic content (Quiroz, 2000). This finding does not imply that telesecundaria students carry out in-depth work on scholastic content, but it permits the affirmation that decreased adaptational efforts make that goal more possible.

Telesecundaria standards establish that group size should not surpass twenty-five students. At the schools studied, the average number of students per group was twenty. This characteristic is positively valued by the students for two reasons: the first and most important indicates that students receive more attention from the teacher, as evidenced by the following excerpt.

Interviewer: What do you think about having a small group?

Ignacio: It benefits us because we get more attention from the teacher.

Interviewer: Does he approach you to explain things to you?

Victor (interrupting): Yes, he gives you more attention. Because when there are thirty or forty students, he cannot approach one because another one calls him. But here we have twenty students, so the teacher pays more attention to each one. For example, if you do not understand him, he goes and explains it to you and you understand him (e1-13).

The second positive valuation is complementary to the first, and refers to the possibility of student interaction. Abigail expresses such interaction as follows:
Abigail: For the same reason that students can get more attention from the teacher and students can approach the teacher more, there can be more interaction among students (1-13).

In summary, according to the students, the small groups and sole group teacher in telesecundarias allow a more personal and trustful relationship with the teacher, in addition to permitting greater interaction among students.

The Debated Evaluation of Telesecundaria

The value judgments expressed by the students describe telesecundarias as spaces in which the elements of the pedagogical model, complementarity and the sole group teacher generate favorable attitudes regarding the possibilities of learning and being successful in secondary school.

These value judgements are totally different from those obtained in the research of Santos and Carvajal (2001) and Santos (2001), which refer to telesecundarias in marginated rural zones. Our study, in contrast, was carried out in two semi-urban telesecundarias in which all elements of the pedagogical model are applied. In addition, the two schools comply almost entirely with standards in terms of the school calendar, schedules and the regular presence of teachers and students. In other words, they are schools with regular pedagogical functioning.

The application of the model's elements and the regular pedagogical functioning of these schools are the bases of student perspectives of their school. They value their school highly and expect to be able to learn more easily in telesecundarias that at other types of secondary school. The students believe that the school makes elements available to them to permit their learning—which generates student confidence in the possibility of learning. The fact that students have such expectations about their learning implies favorable conditions for learning to occur, although not sufficient to permit affirming that the objective is being achieved.

Santos' study of educational opportunities and conditioning factors in telesecundarias located in marginated rural zones, shows the existence of an association between scholastic achievement and the levels of application of some of the elements of the telesecundaria model. The study indicates, for example, how the degree of availability of televised
classes conditions student achievements in the basic skills of reading comprehension, and how forms of school organizations such as the multi-level classroom, which is not established by the telesecundaria model affect student achievement (Santos, 2001:41).

Certainly in these schools with their precarious functioning of the pedagogical model students would not have the perspectives of the young people in our study with regard to the function of each mediator, mediator complementarity, or the advantage of the group teacher. Certainly their expectations regarding the possibilities of learning would be lower than those of the students in our study.

Although scholastic achievement data is not available for the telesecundarias of our study, it can be assumed that their scores would be higher than those of the schools in the Santos study, due to the association between applying elements of the model and scholastic achievement. It is also possible to assume that there is an association between student expectations for learning and scholastic achievement.

The reasoning developed here leads to the debate on the efficiency of telesecundarias in comparison with other types of secondary schools. For this end, the obligatory reference is Santos' study, which compares reading comprehension in the third year of different types of secondary schools. The data indicate that the average scores are 51.98 for general secondary schools, 51.2 for technical secondary schools and 48.81 for telesecundarias. The study also compares mathematical reasoning in the last year of secondary school. The data show that average scores in this area are 52.31 for general secondary schools, 51.99 for technical secondary schools and 51.48 for telesecundarias. The author of this text, based on these data, establishes that telesecundaria students—in terms of these skills—obtain significantly lower scores than those of general secondary schools (Santos, 2001:23-24).

If it is taken into consideration, as indicated in the study, that the test has a maximum of 80 points, the idea that the scores of telesecundaria students are significantly lower can be questioned. In the case of reading comprehension, the difference between general secondary schools and telesecundarias is barely 3.17 points, which in terms of a maximum of 80, represents a difference of only 3.96%. In the case of mathematical reasoning, the difference of 0.83 points represents only 1% of the 80-point total.
In the light of this logic, such differences between general secondary schools and telesecundarias seem to have little significance. Santos' study (2001) indicates that telesecundarias that do not apply the elements of the pedagogical model consistently obtain the lowest scores, and that these scores affect the overall average of telesecundaria scores. This finding leads to the assumption that if all telesecundarias applied all the elements of the respective pedagogical model consistently, the overall average of telesecundaria scores would increase and possibly be equivalent to the scores of the general secondary schools.

Although scores are not available for the telesecundarias of our study, it can be assumed that they must be much higher than the national average for telesecundaria schools, given that the schools studied apply the elements of the pedagogical model and have regular functioning.

This argument leads to the conclusion that although the pedagogical model of telesecundaria schools can still be improved, when it functions consistently it permits scholastic achievement equivalent to that of other types of secondary schools, in addition to generating student confidence about learning and a feeling of identity with the school.

The positive evaluation of telesecundaria students refers to elements unique to telesecundarias. Some research on general secondary schools has referred to students' having to confront eleven teachers every school year. Although this phenomenon has its origin in the fragmentation of the curriculum into an equal number of subjects (the same subjects for all types of secondary schools), the problem becomes more complex for students in general and technical secondary schools, who must adapt to eleven different styles of teaching, evaluation and interaction (Quiroz, 2000). Telesecundarias require less of an effort to adapt to curricular fragmentation because of the sole group teacher.

Some studies have also pointed to the centrality of textbooks in general secondary schools. Textbooks function for the selection and sequence of content, for the organization of learning and evaluation activities, and are an essential source of teacher knowledge. As a result, student use of scholastic content is totally subordinate to what the teachers demand from the book (Quiroz, 2000). In telesecundarias, although the learning guide plays a similar role, the complementarity of mediators, positively evaluated by the students, dilutes centrality and allows more diversified learning experiences.
Based on the above conclusion, it would be worthwhile to suggest the usefulness of introducing, in other types of secondary schools, mechanisms similar to those evaluated positively by the *telesecundaria* students. One possibility, for example, would be a person to play the role of the single group teacher, such as a group adviser, with class time dedicated to that function. Such a mechanism would also imply less of a rupture with the elementary group teacher. Another possibility would be more frequent television support as a teaching resource. In sum, multiple elements of *telesecundaria* could be applied, with pertinent adaptations, to other types of secondary schools.

**Notes**

1. The fieldwork was carried out jointly by the author and a student in the master’s program at the ISCEEM, as part of the research for his thesis.
2. This idea is taken from Luna (1993), who states that elementary school teachers have a type of mental file for each one of their students, and that their actions with regard to each student use that file as a reference.
3. This code and subsequent codes are assigned in the research file to the quoted interview.
4. In this study, scholastic achievement refers to the points students obtain on tests of reading comprehension and mathematical reasoning.

**Bibliography**


Rodríguez, F. (1999). *Las perspectivas de los estudiantes de secundaria*, tesis de maestría, México: ISCEEM.


*Article received: August 30, 2002
Accepted: November 25, 2002*