

TEACHING HUMAN REPRODUCTION and SEXUALITY: A HISTORICAL APPROACH in FRANCE since 1950.

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Abstract. We examine how the topics of human reproduction and sexuality have been taught in France since 1950, and to what point the teaching of this delicate topic has followed the important scientific and social evolutions during the last half century. More specifically, we discuss how this topic was introduced into secondary education in France by analysing official syllabuses and related texts, as well as corresponding textbooks, for the 50 last years.

Sex Education (SE) was entrusted to biology teachers, whereas this topic largely exceeds this field. Not only does it span several disciplines, but it is also intended on changing attitudes and behaviours, taking root in values which are not always explicit. In the framework of didactic transposition, SE is particularly illustrative of the interactions between scientific knowledge (K), social practices (P) and systems of values (V), KVP detected here in syllabuses and school textbooks.

1. Introduction and theoretical background

The teaching of human sexuality has received little attention from researchers in Didactics of Biology, except for the many studies on AIDS and the need for preventive education on this particular topic (for example Motta 1996, Marzin 2001, Saccadura 2002, among others).

Our purpose here is to analyse the teaching of this subject in secondary education in France through a historical approach to teaching syllabuses (official teaching programmes and related texts) and school textbooks of the last 50 years. In effect, progress in contraception, legislation on abortion, the rise of feminism, as well as the evolution of mentalities and the media have greatly modified sexual practices and the values underlying them during the last half century.

In France, Sex Education (SE) was attributed to biology teachers, whereas the scope of this subject spans well beyond the biology field. Like Environmental Education or Health Education, not only does SE encompass several subject areas, but it also has the mission of inducing change in attitudes and behaviours, taking root in values that often are not explicit.

Our approach is based on the analysis of interactions between KVP (scientific knowledge K, social practices P and systems of values V) in teaching situations (Clément 1998, 2001). The topic of SE is a good example of this approach.

Our work is at a crossroads between Didactics of Biology, Health Education, and the History of Education.

Health Education:

Health is defined by the World Health Organisation (W.H.O., 1948) as “*a full state of physical, mental and social well-being, not just the absence of illness or handicaps*”.

In schools, Health Education involves informing students so they become aware of the dangers of certain life-styles or behaviours (e.g.: smoking, taking drugs, bad eating habits...). This includes leading students to develop responsible sexual behaviour, as though such behaviour were rational and could be changed simply by being informed, or by singling out those that show such behaviour, or making them feel guilty, regardless of the often particular or complex circumstances that induced the incriminated behaviour in question. (Carvalho 2002).

During the last 20 years, great debate has opposed the tenants of a biomedical model of Health Education to those of Health Promotion (Downie et al 1996/2000). Health Promotion is defined as « *the process that provides populations with the means to have greater control over and improve their own health, going beyond healthy lifestyles to establish well-being*” (Ottawa Charter for Health Promotion, 1986).

More recently, Health Education projects have favoured approaches that take pupil reflection and conscience into account, thereby by promoting the autonomy of children and forging their capacity to make their own choices for themselves, whatever they may be, based on their own understanding. This strategy implies recognising the personal values, attitudes, beliefs... of individuals, to be aware of what motivates personal choices, and aware of the individual and social consequences of these choices, not only regarding the well-being of individuals, but also the implications for all through a healthy environment.

An exemplary theme for studying Biology and Health Education: the teaching of human reproduction and sexuality.

The biological aspects of these subject areas greatly overlap emotional and moral issues due to the variety of values they lead to, for example, taboos or unease in our relationships to nudity and sexual activity in general.

Yet today, in France, the experience of teachers and associations (such as the French Family Planning, or *le Collège Rhône-Alpes d'Éducation pour la Santé*) shows that pupils have great demands for information on these topics, but that it is difficult to treat these issues in school, primarily because of the wide range of values encountered among pupils, but also among teachers and outside or visiting instructors.

Internationally, research on SE has developed considerably to the point that a review is now dedicated specifically to this theme ("Sex Education", Taylor & Francis Ltd). Research in this area often stems from sociology and psycho-sociology, but also from a variety of other fields, including Science Education.

Didactic transposition

The approach presented here is based on the theoretical context of the Didactic Transposition (Verret 1975, Chevallard 1985).

Part of this study concerns the external didactic transposition, i.e. analysing the motivations and decision-making processes involved in choosing what is or is not to be included in teaching syllabuses (Astolfi et al 1997). This analysis of syllabuses and other official texts attempts to identify the socio-cultural factors that influenced the introduction of certain issues, such as human reproduction and sexuality. These factors include not only the evolution of scientific knowledge (K), but are in large part related to the evolution of social practices (P) and systems of values (V): Clément 1998, 2001.

The other part of this study focuses on the internal didactic transposition, concerning how syllabus content is transposed in textbooks. Here we analyse the contents of textbook chapters

pertaining to our subject, taken from books edited in the last 50 years. The interpretations of syllabuses and educational guidelines, and how they are illustrated, are good indicators of author and editor conceptions on these subjects (Clément 2004). The evolution of KVP in syllabuses is linked to KVP dynamics in society, but following a delay that we call the Didactic Transposition Delay (DTD) (Figure 1).

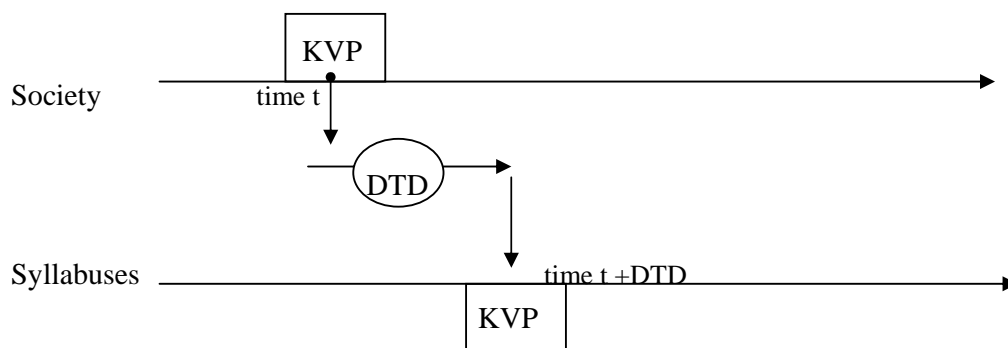


Figure 1. The Didactic Transposition Delay (DTD) from KVP in society to KVP in syllabuses
 K = scientific knowledge; V = systems of values; P = social practices.

History of Education

The History of Education is a rapidly developing research area. In France, compilations of teaching syllabuses and curricula of the last century have been published for the period spanning 1789-1914 (for example Belhoste, 1995, tome 1), and the second tome is upcoming.

Many publications have been made on the history of Health Education, such as Nourisson (2002) who analysed the evolution Health Education during the 19th and 20th centuries. Regarding the history of SE, Lejeune (1980) studied the period from 1968 to 1978, Ayats (1980) commented the period from 1973 to 1980, and Lelièvre (2005) has just published a book on two centuries of embarrassment in French schools, in relation to the sexuality of teachers and pupils.

During the last 50 years, the social practices and values linked to sexuality have evolved enormously. But to what point have these changes been portrayed in the syllabuses and textbooks for secondary education in France, through successive reforms?

2. Research question and methodology

How has a vital subject, that concerns the daily life of everyone, and which overlaps scientific and medical aspects with emotional, socio-cultural and ideological issues, been introduced in secondary education in France?

To answer this question, we studied the theme “human reproduction and sexuality” in the syllabuses, educational guidelines and textbooks for secondary education, since 1950 until now. The date of 1950 was chosen arbitrarily, simply to start from a date prior to the first introduction of the topic in secondary teaching in France (in 1973).

In this presentation, particular attention is given to the following points:

- Is the theme “human reproduction and sexuality” limited solely to biological knowledge, or does it encompass other dimensions and/or other disciplines?
- To what point is the teaching in harmony with or to the contrary in discordance with the social and cultural evolution related to sexuality that occurred in France during this period. How, through what reforms, and following what delays, were aspects of this evolution included in the secondary syllabuses?

Collecting Data:

The corpus studied is comprised of:

- All texts (official syllabuses, circulars, decrees, and other educational guidelines) published in the *Bulletins Officiels de l'Éducation Nationale* (B.O.E.N or B.O.), that mention or concern human reproduction and sexuality, between 1950 and 2004. A list of the texts consulted is provided in annex I.
- Textbooks from different periods and editors, published between 1950 and 2004, particularly after 1973 when the topic first appeared in national syllabuses. The list is provided in annex II.

These documents were obtained at the *Institut National de Recherche Pédagogique* (I.N.R.P.; National institute for pedagogic research) recently transferred from Paris to Lyon.

Data analysis:

First the contents of the syllabuses and other official teaching documents were analysed with reference to fields or subject areas of teaching, specifically: (1) biological information, (2) a biomedical approach to health, (healing and prevention of diseases), (3) a health promotion approach, and (4) sociological, psychological, or moral aspects of the subject. These contents were then analysed in parallel to the scientific and socio-cultural events more or less related to our subject during the period studied.

Then textbook contents was analysed in relation to the same fields, focusing on issues thought to be particularly indicative of KVP conceptions. For example: what is the definition of sexual intercourse? Does the book mention love, or pleasure? How are nudity and puberty approached? For each of these points, we cite passages that explicitly use the vocabulary selected as indicators (pleasure, clitoris, etc...). We also analyse the images associated with these topics, be they photographs, drawings or other types of imagery, in terms of what they show, what they suggest but do not explicitly show, and what they ignore.

In the following paragraphs, we present the main results of this historical analysis as a succession of five periods, each of which correspond to a significant change in teaching policies, and then discuss relationships between teaching contents and general context.

3. 1950-1973: Only animals

The topics of health and prevention were already present in the syllabuses of 1950 (and even before) but reproduction and sexuality were limited exclusively to plants and to animals such as frogs or birds. In 1966, the ministry of education courageously added the reproduction of mammals to the syllabuses, recommending mice as an example.

Textbooks of this period dare show images of coupling animals, such as frogs or even horses in the early 1970's. In these same textbooks, human anatomy is presented via photographs of “skinned models” (models of the human body in which the skin and outer layers of muscle are absent to show inner organs), but sexual organs are not shown in these models.

Meanwhile, the Neuwirth law legalising contraception in France was voted in 1967. And movements of feminists and in favour of sexual freedom in 1968 portray the profound changes in mentalities and social attitudes towards sexuality at that time.

From 1968 to 1972, it seems there was no intention to change policy regarding SE in schools. The May 1968 protests did however enable improvised debates on SE to take place in schools. These debates focused primarily on contraception, following the vote of the 1967 law, and those who organised sexual information courses were confronted with “problems inherent to such spontaneous actions, which sometimes became disorderly or incoherent” (Lejeune, 1980). However, following the May 1968 protests, the official syllabuses remained unchanged until 1973.

4. 1973-1976: At last human reproduction and sexuality make their way into the syllabuses

On July 11th, 1973, the *Conseil Supérieur de l'Information Sexuelle* (C.S.I.S., High commission on sexual information) was created by the French Ministry of Health, also encompassing the mission of regulating birth and orienting family education. This commission included representatives of associations (family planning for example) and medical members.

Shortly thereafter, on July 23rd, 1973, the Minister of Education, J.Fontanet, published a circular stating that “*sexual information*” was to concern mandatory content of biology syllabuses in secondary education, whereas “*sexual education*” was to cover optional issues, to be developed outside of official teaching hours. The analysis of sentences associated with occurrences of the key-word “*sexual information*” in this circular clearly demonstrates the “*exclusively scientific*” nature of the mandatory information to be taught, focusing on reproduction. In contrast, occurrences of the key-word “*sexual education*” show a confrontation between traditional values (marriage, family) and allusive references to new values (reasoned choices, freedom of choice). The term “*responsibility*” is used, but without clearly specifying its meaning, in relation to which values. Thus this text is an important innovation in that, at last, human reproduction and sexuality is introduced in teaching, via an official circular. It is intended on being permissive, but in fact traditional values get greater representation than newer views, perpetuating the tradition “*information in school, education at home*” system.

Moreover, this text only indicated the general orientation and the spirit of the how the reform should be applied, but did not provide a full new set of syllabuses to go with it. The syllabuses were only renewed in 1976. Hence there is a relatively long Didactic Transposition Delay DTD (Quessada and Clément 2004) between the time of change in social attitudes towards sexuality and its introduction in teaching policies.

Furthermore, the 1976 syllabuses are limited to knowledge on human reproduction. According to these texts, biology teachers are to “dissect” reproductive organs and explain how they function, as though they were part of a complex mechanism the sole purpose of which being the transmission of life. Lexical analysis shows the terms and verbs used highly dilute the “*sexual information*” content of the material, i.e. the teachers are to simplify the sexual aspects as much as possible.

Hence sexuality is reduced to procreation. The principles of contraception make a modest first appearance in the 1976 syllabuses, whereas the law legalising contraception dates to 1967. Regarding abortion (legalised under certain circumstances by the Veil law in 1975) the syllabuses remain ambiguous. The technical term for abortion (voluntary interruption of pregnancy, in French I.V.G.) remains absent, only to appear in later syllabuses. The idea that

procreation can be controlled is not yet mentioned either. Can one really consider this to be “sexual information” when teaching contents is essentially limited to the description of anatomy and biological mechanisms?

5. 1976-1988: Sexual pleasure in textbooks

Pleasure during sexual relations is one of the themes for which the evolution of textbook contents is particularly remarkable. While the subject was completely absent from the 1976 and preceding syllabuses, textbooks progressively integrate it more and more explicitly in the following years. In the abstract of texts presented just below, attention is given to desire, pleasure, and orgasm. Sexual relations no longer serve only for procreation, but are also considered to be a source of pleasure between two people.

- « *A partir de la puberté, l'instinct sexuel provoque chez l'homme et chez la femme un désir physique dont l'aboutissement est l'acte sexuel. Chez la femme, des sécrétions du vagin facilitent l'accouplement. Chez l'homme, le pénis se gorge de sang, devient turgescent : c'est l'érection qui permet sa pénétration dans le vagin. Les mouvements qui suivent déclenchent l'éjaculation du sperme toujours accompagnée, pour l'homme, d'un plaisir sexuel ou orgasme. L'orgasme féminin, plus complexe, est plus lent à se manifester ; l'entente physique des deux partenaires joue un grand rôle dans son apparition.* ». (Hatier : 1979, Géologie, Biologie Humaine, éveil à la vie, 4^{ème}, "Le fonctionnement des appareils genitaux").

This means: "With puberty, sexual instinct produces physical desire in men and women, leading to sexual activity. For women, secretions of the vagina facilitate copulation. For men, the penis becomes gorged with blood, making it turgescent, i.e. the erection that enables the penis to penetrate the vagina. The following movements lead to the ejaculation of sperm, always accompanied by sexual pleasure or orgasm for men. The female orgasm, more complex, is slower to appear; the physical co-operation of the two partners plays a great part in its appearance."

- « *'Faire l'amour' est avant tout un moyen de dire à l'autre ' je t'aime' . (...) Le plaisir sexuel est un moment privilégié de communication.* ». (Magnard : 1988, Sciences et Techniques Biologiques et Géologiques, 4^{ème}, "La transmission de la vie et la contraception").

This means: "'Making love' is above all a way of saying " I love you " to the other. (...) Experiencing sexual pleasure is a privileged moment of communication (...)". The editor chooses to speak of "love" and of "sexual pleasure" here rather than of "sexual intercourse".

- « *La naissance du désir sexuel : tout être vivant, même un enfant, a des désirs : il a faim, il a soif ; il recherche un certain nombre de plaisirs par le jeu, l'amitié, l'aventure... Mais c'est avec la puberté qu'apparaît le désir de rencontrer un être de l'autre sexe pour éprouver avec lui le plaisir d'être ensemble et au-delà, le plaisir du contact physique. Ce désir qui naît progressivement est normal ; il ne peut se satisfaire qu'au sein d'un couple et ne se limite pas à de simples relations sexuelles.* ». (Tavernier : 1988, Géologie Biologie, Collection Tavernier, 4^{ème}, "La transmission de la vie").

This means: "The origins of sexual desire: any living being, even a child, has desires: being hungry or thirsty; seeking pleasures through play, friendship, adventure... But with puberty, the desire of beings of the opposite sex appears, to experience the pleasure of being together and

beyond, the pleasure of physical contact. This desire which initiates gradually is normal; it can be satisfied only within one couple and does not limit itself to simple sexual intercourse."

These passages can be further analysed in parallel with textbook iconography. The representations of how the spermatozoa are deposited in the vagina are faithful to what one can read in the text. The penis is visible in the vagina, and we can see the spermatozoa being deposited, in association with terms such as penetration and ejaculation in the text.

- «*L'introduction des spermatozoïdes dans les voies génitales de la femme a lieu lors d'un rapport sexuel (ou accouplement, ou copulation, ou coït).*». (Hachette : 1979 Sciences Naturelles-Géologie/Biologie Humaine, 4^{ème}, "La transmission de la vie").

This means: "The introduction of spermatozoa into the vagina of the woman takes place during sex (or coupling, or copulation, or coitus)."

In the graphic representations of the external male and females genital parts, the organs of the pleasure are described (penis with foreskin; vulva with small and large lips, clitoris). Diagrams also represent the hymen. The pubic hair is present on the illustrations, a timely issue for adolescents, providing an occasion to discuss body changes during puberty. Photography is used here to show nudity and the acquisition of the secondary sexual characters. Photography is also used to illustrate childbirth, and the child coming out of the vulva.

6. 1988-1995: Making place for AIDS

From 1986 onwards, the AIDS pandemic greatly modified the approach and the representations of sexuality in our society. Advertising for condoms as a means of prevention of sexually transmitted diseases is authorised in France in 1987. From 1988 to 1993, many investigations into the behaviour of young people stress that the contribution of precise scientific knowledge of the disease is essential, but not alone sufficient to develop responsible sexual behaviour.

However during entire period from 1980 to 1995, there are no new texts redefining what SE should include at the secondary level. The 1973 Fontanet circular is still the latest reference!

In the syllabuses, the term AIDS appears in 1985, and in 1988 the term for Sexually Transmitted Diseases (in French M.S.T.). The didactic transposition delay regarding AIDS in the syllabuses and textbooks was particularly short, because of the great concern about this disease at the time, and its impact in the media. In textbooks, this issue is fully developed since 1988. Consequently, the use of condoms is illustrated in the textbooks. The condom was already cited as means of contraception in the preceding textbooks, but from this point onwards, diagrams now make it possible to explain how it is used.

7. 1996-2005: Responsible sex education for students, but with a return of decency

The concept of "sex education" emerged in the 1996 syllabuses, surpassing the "sexual information" approach of previous periods. There was a need for an education centred on individual responsibility and prevention. This was achieved by empowering the pupils themselves with the skills to avoid risky behaviour.

"Sexual information" and "sexual information and education" of the 1973 circular was replaced by "sex education" in 1996, i.e. it took 23 years before a new official circular was edited. Since 1996, three other ministerial circulars have seen the day (n° 96-100; n° 98-234; n° 2003-027), all of which focus on "*sex education and AIDS prevention*". AIDS continues to

appear as a major public health problem, justifying a reinforcement of prevention. Beyond scientific information on sexually transmitted diseases, circulars propose to develop an education based on responsibility to discourage pupils' from adopting risk behaviour and to bring them to develop responsible behaviour. Prophylactic aspects are a main concern of prevention in this approach, but other dimensions should also be taken into account (relations with others and social interactions).

The current definition of SE is as follows:

« *L'éducation à la sexualité a pour principal objet de fournir aux élèves les possibilités de connaître et de comprendre ces différentes dimensions de la –et de leur- sexualité, dans le respect des consciences et du droit à l'intimité. Cette éducation, qui se fonde sur les valeurs humanistes de tolérance et de liberté, du respect de soi et d'autrui, doit en outre aider les élèves à intégrer positivement des attitudes de responsabilité individuelle, familiale et sociale* ». (B.O. n°46 : Circulaire n° 98-234 du 19 novembre 1998, *Éducation à la sexualité.et prévention du SIDA*).

This means: “The main goal of sex education is to provide pupils with the possibility of understanding the various dimensions of sexuality in general, and of their own sexuality, while respecting individual conscience and intimate rights. This education, based on humanistic values of tolerance and freedom, on self-respect and the respect of others, is also to help pupils to integrate personal, family and social attitudes in a positive, responsible manner. Thus SE objectives must cover the three individual, relational and social dimensions. This is in agreement with the World Health Organisation prospects regarding health promotion. In this perspective, SE is less restricted to its biological or biomedical dimensions (care, prevention) than it was previously.

Guidelines to Natural Sciences syllabuses at the end of the 70's explained why teaching was only “to evoke” the end of puberty and give some notions about adolescence growth. The contents of current syllabuses start directly with genetic sex determination, leading up to a more substantial description of puberty, including a description of how secondary sexual characters develop.

The contents of the latest syllabuses are still centred on in scientific explanation that favours discourse from dominant currents of research, namely molecular biology and genetics (Clément, 1998). Indeed genetics and immunology are very present in the syllabuses, from year 7 (13-14 years old) to year 13 (17-18 years old).

Thus, even if the SE syllabuses cover the three individual, relational and social dimensions, according to the last ministerial texts, the textbook contents do not seem to do the same. Pleasure and nudity have become increasingly discrete, and are even absent from some textbooks, to the profit of other “*more scientific*” knowledge. To a lesser degree, this is also true for human behaviour and interpersonal relations.

- « *Lorsqu'un rapport sexuel a lieu pendant la période féconde de la femme, la fécondation se produit.* ». (Tavernier- Bordas : 1994, *Géologie Biologie*, , 4eme, « La transmission de la vie »).

This means: “When sexual intercourse takes place during a woman's period of fertility, fertilisation occurs.

In this textbook, the reproductive organs are immediately followed by information on fertilisation, and sexual intercourse is not referred to again. Pleasure, portrayed by words like orgasm or clitoris or the illustration of these terms, is absent here, whereas previous books from the same publisher did present them.

- «*Un rapport sexuel n'est possible que si le pénis est en érection. Cet état est causé par un afflux de sang dans un tissu particulier du pénis appelé le tissu érectile. L'éjaculation permet de déposer quelques millilitres de sperme au fond du vagin.*».
(Tavernier-Lizeaux-Bordas : 2002, Sciences de la Vie et de la Terre, 4^{ème}, « La transmission de la vie chez l'homme »).

This means: "Sexual intercourse is only possible if penis is in erection. This state is caused by blood inflow in a particular penis tissue called erectile tissue. Ejaculation enables the deposit of a few millilitres of sperm at the base of the vagina".

Here, erection and sperm emission are not connected to orgasm. This schematic representation of fertilisation shows an open vagina where spermatozoa seem to arrive directly from outside. The penis is absent, and is not shown penetrating the vagina. Concerning body changes at puberty, a diagram replaces a photograph in the previous editions of the same publisher. The representation of pubic hair is reduced to several small grey clouds. In most textbooks, childbirth is no longer shown by photographs, but by schemas. And in these schemas, the vulva are shown without hair and little blood is present (sometimes even on the placenta). The few photographs found on this topic in current textbooks show a mother covered with a clean surgical cloth. Thus childbirth is presented in a highly aseptic manner.

Conclusion

The Didactic Transposition Delay (DTD) is longer when it is more than a scientific knowledge question

We saw that the DTD regarding AIDS and preventive behaviour was particularly short. The delay pertaining to recent scientific knowledge (for example HIV identification) and biomedical health practices (prevention) were also quite short.

On the other hand, the delay regarding the introduction of human sexuality in syllabuses and textbooks was much longer. In contrast the change in attitudes developed in France in the 60's, culminating in May 68, the topic of human reproduction and sexuality appeared only in 1973 in the ministerial circulars, 1976 in the official syllabuses and thus later in textbooks. Moreover, this introduction was quite timid, largely limited to biological information, compared to the changes in social attitudes of that time. The same can be said for the topics of contraception and abortion.

SE in the perspective of health promotion (as introduced in 1986 by W.H.O.) was only introduced in French syllabuses in 2003. Official circulars, and later textbooks were much more cautious regarding the introduction of contents related to sexual attitudes and behaviours (which may be in opposition to traditional values), than for the introduction of new scientific or medical knowledge (including those relative to preventive behaviour).

This question is as delicate as it is captivating. Indeed, as we indicated in introduction, in the field of sexuality, the three poles of scientific knowledge (K), systems of values (V) and social practices (P) are in permanent evolution. New scientific knowledge can easily be the object of consensus, and thus appear quickly, if necessary, in syllabuses. The other two poles vary according to the tensions between various components of society. Political and social evolution enter gradually in laws (contraception, abortion, importance of SE) which are perhaps less consensual than biological or medical knowledge. This could explain the

comparatively slow introduction of these aspects of SE in syllabuses and textbooks.

And decency?

Decency is also very delicate question, because it is closely tied to the evolution of attitudes and behaviours, as well as to tensions between systems of values.

Our study has shown that decency had an excessively determinant consideration in the syllabuses and textbooks before 1973/1976. Following May 68, the irreversible rise of feminist positions, use of preservatives, sexual freedom, or even the increasing diffusion of pornographic images, have undoubtedly influenced our judgement of attitudes towards SE today.

However these ideas were only introduced into syllabuses in 1976. In textbooks, sensitive topics such as pleasure and orgasm, or photographic representation of nudity with pubic hair, only appeared in the late 1970's and particularly in the 1980's. Then, with the introduction of the AIDS topic and the use of condoms as prevention, the above terms and topics received less attention. It is as though decency had renewed importance, perhaps with the return of the traditional values in society, at least concerning sexual practices.

We expect for that through social movements, which fight for SE and health promotion, school systems will evolve and be able to provide pupils with a more adequate education in sexuality and citizenship. In this perspective, interdisciplinary approaches to teaching SE would help to limit the dominant role of purely biological knowledge, and give more attention to interpersonal relations.

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Annex I : List of official texts consulted

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B.O. n°9 (27-02-03) : Circulaire n° 2003-027 du 17 février 2003, L'éducation à la sexualité dans les écoles, les colleges et les lycées.

Annex II: List of the textbooks analysed (book editor and year of edition). Bold print indicates books giving the example of animal reproduction, not human reproduction

School year (French appellation)	Age	1950-1972	1973–1976	1976-1988	1988-1995	1996-2005
Year 7 (6^{ème})	11-12	Bordas 1972 Hatier 1969	Bordas 1975 Nathan 1976	Bordas 1981	Not taught	Not taught
Year 8 (5^{ème})	12-13		Bordas 1974	Bordas 1978 Bordas 1987 Hatier 1980 Nathan 1980	Not taught	Not taught
Year 9 (4^{ème})	13-14	Hachette 1971	In the curriculum but not in textbooks	Bordas 1980 Bordas 1988 Hachette 1979 Hachette 1988 Istra 1988 Magnard 1979 Magnard 1984 Magnard 1988	Bordas1994 Hachette1989	Belin 2002 Bordas 1998 Bordas 2002 Nathan 1998
Year 10 (3^{ème})	14-15		In the curriculum but not in textbooks	Belin 1980 Bordas 1980	Bordas 1989 Istra 1989 Nathan 1989	Belin 2003 Bordas 1999 Magnard 1999