

School and career guidance as a source of stress for secondary school students

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Summary :

The need for secondary school pupils to make choices between the different courses of study or professions offered to them by the institution according to their abilities, their academic results or according to socio-economic constraints is a source of difficulties for 85.6% of teenagers at school between the ages of 12 and 20 (from the Fifth Form to the Final Year). These difficulties, which may be external or internal to the subject, promote a state of stress in the students. The results show that it is particularly internal difficulties such as self-doubt that explain the level of perceived stress. As they get older, students tend to be increasingly stressed and defend themselves by externalising their difficulties with guidance.

Key words: School guidance, difficulties, self-doubt, stress, adolescence.

Summary :

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The necessity for primary and secondary school adolescents to choose between different vocations or occupations suggested by private schools according to their capacities, their school results or socio-economics constraints is a source of difficulties for 85,6 % of school adolescents between 12 and 20 years of age. These external or internal difficulties help create a state of stress in pupils. The results show that particular internal difficulties as self-doubt explain such a perceived stress level. With age, pupils tend to be more and more stressed and they protect themselves by putting their orientation difficulties out.

Key Words : School orientation, difficulties, self-doubt, stress, adolescence.

Introduction

There is a great deal of research on occupational stress in adults (stress in nurses, pilots, managers, assembly line workers, teachers, etc.) (Rivolier, 1989) and there is a growing body of work on understanding and analysing the links between work life, family life and stress in adults. Very little research in France has focused on the stress of children and adolescents in their institutional learning environments: kindergarten, school, college and high school (Tap, Bouissou, Esparbès-Pistre, Lacoste, Lamia, Lévêque, Sordes-Ader, 1997, 1999, 2002; Esparbès-Pistre and Bergonnier-Dupuy, 2002). However, these different settings are at the same time a place of socialisation, personalisation and integration, but also of mockery, violence and marginalisation, and therefore sources of difficulties and stress at different levels.

Our research focuses on a population of middle and high school students aged 12 to 20. It consists of studying school and/or professional orientation as a potential source of stress. We are studying the psychological effects of the school orientation situation (choice of

courses of study, professional project) with secondary school students integrated into a general education curriculum (from the 5th grade to the 12th grade). In this context, we are interested in the stress experienced by these young people when faced with a more or less 'required' but necessary choice of direction, depending on the class and the level of academic performance.

1) School and/or vocational guidance: between choices and requirements.

The project (first of all, the orientation project) enables the adolescent to make the transition from the school world of childhood (his or her daily reality) to the world of adult work (imagined and represented by him or her) by exploring new relationships between the possible and the real (Piaget and Inhelder, 1965). Between desires, wishes, aspirations but also demands and constraints, even obligations, he will have to make choices.

The school guidance project, the vocational project and the life project are three perspectives that are both autonomous and intertwined. The project often obeys a '*paradoxical injunction*', with the adolescent caught between the environment (social and family) that pushes him to seek what he wants to do later, to 'make a project', and the personal, family or social constraints that prevent him from realising his plans (Boutinet, 1990, 91-92).

1.1. Orientation through selection.

Schools have three functions: production (transmission of knowledge), selection (sorting, ranking, choice of courses) and integration (Dubet, 1991). Selection and the threat of failure weigh on the entire school career. "*More than one in two pupils is likely to fail at some point or to feel directed towards a course of study that he or she has not really chosen. Selection therefore dominates the school experience*" (op. cit., 201).

In the logic of the project, for the school institution, it is not so much the image of a profession that is important, but the abilities, the possibilities, the academic success. *"Depending on his or her personality and environment, the adolescent will orient himself or herself towards a profession in accordance with the perception of his or her own abilities and according to the fact that the particular social status allows him or her to satisfy his or her personal degree of self-esteem"* (Lacoste and Tap, 2004). The school guidance process seems to go backwards and proceeds more by successive exclusions of possibilities; pupils in the fifth year have a more determined project than those in the third year, whose project is itself more precise than those in the final year (Boutinet, 1980).

It would appear that the greater the academic performance, the greater the possibilities of orientation. This could make the project less assertive and less precise.

Thus, paradoxically, the career plan appears to be fairly precise among younger pupils or those who do less well at school or follow less valued training courses. On the other hand, those who succeed in their studies often have a vague career plan or no plan at all (Boutinet, 1990), as if they had the right or the opportunity to think about their future life for a while longer, to wait a little longer to choose their path. Schooling temporarily acts as a professional project, providing a place of refuge, a protection from an environment that is not very engaging in times of crisis, thus postponing the moment of professional integration.

The project is developed from school resources which paradoxically allow for the postponement of its commitment. *"The privilege becomes even the absence of obligation to have a project"* (Dubet, 1991, 198).

It is mainly adults who think in the long term, whereas many adolescents experience their schooling on a day-to-day basis, through the numerous assessments and checks experienced as *"the sword of Damocles hanging over their heads"*; *"perform well or you won't choose your path!"* However, for most of the high school students interviewed by Dubet (1991),

selection is a central concern, with only the '*very good*' and '*very weak*' being more indifferent, being caught up in automatic careers. A hierarchy of streams takes shape in an objective manner, constructing the rules of this selection. The inequality of the streams is self-evident, recognised by teachers, parents and pupils alike.

Whatever the course of study, the baccalaureate is the central objective and the key that enables, obliges or prevents pupils from making plans. The fear of unemployment is present in many young people, while few of them feel that they are succeeding in their studies and are looking to the future with serenity (Dubet, 1991).

On the other hand, educational and professional orientations remain deeply gendered, with girls and boys not pursuing the same educational careers. Girls' career paths are less related to their academic performance and are less diversified than those of boys. "*At school, girls and boys develop representations of themselves and their future that are strongly congruent with the social organisation of gender relations*" (Durand-Delvigne, 1996, 99). But for girls, as for boys, the difficulties in finding their bearings remain.

1.2. Guidance education.

Between choices and demands, the teenager cannot cope alone, the help of a counsellor can be very valuable. The practice of the guidance counsellor is a maieutic one. His objective is to help the subject to identify, in his representations and wishes, the projects implicitly contained (Guichard, 1993). The various actions usually carried out in relation to the problem of school guidance for adolescents emphasise the primordial role of information: better informed, the adolescent will be able to orientate himself more easily.

The guidance aid introduced in lower and upper secondary schools gives priority to pupils' access to information: knowledge of the economic environment is said to be an essential factor in the pupil's decision making. Guidance counsellors (the main partners of

teenagers in their choice of career), principal education counsellors (CPEs) and teachers who are heavily involved in the young person's career planning are supposed to provide the pupil with the means of accessing information on the school and university systems, on professions and on the training courses leading to them.

General knowledge of the economic environment and professional activities is thus acquired, both through observations in the world of work and through meetings arranged during the year. It is facilitated by the pupil's perception of the usefulness of the knowledge he or she has acquired for the exercise of a profession.

However, from 1989 onwards, the issue of choice and learning about it became more prominent, guidance was learned and the Ministry attempted to systematise guidance education in schools (guidance law of 10 July 1989, circular of 31 July 1996, circular of ¹ October 1996).

However, we believe that the institution's response in terms of information on courses of study, schools and careers is often inadequate or insufficient. At certain times, which remain privileged, young people are available for in-depth individual work on themselves and their projects. These times are not the same for everyone. This in-depth work is incompatible with a mass intervention because it opens up new perspectives for the individual beyond the class attended. The family's socio-professional category, experiences in professional or pre-professional terms such as work placements, repeating a year, etc. are all criteria that differentiate individuals and the approach to their project that they develop. The obligation to choose a career path is often stressful for adolescents, who are subject to numerous institutional and family pressures. To combat this stress, they will not only have to find help, but also take charge of their project themselves.

2- Guidance in adolescence: being the bearer of one's project.

Being the bearer of a project is not so simple: no project without a subject, without an object, without a rejection, without a journey, without a link, whatever the project may be! (Boutinet, 1993). The project includes a part of the other that the subject recognises in his or her own undertakings (Jacques, 1982), the other does indeed have an important place in the project, its birth, its construction, but he or she can also cause its destruction. It is therefore important to analyse the way in which the subject manages influences and appropriates them.

A question then arises: *"At what human cost is a project carried out by its author? At what cost of submission, of subjection? (...)"* (Boutinet, 1993, 85).

Since social determinism is real (economic, social, family, psychological, educational aspects, etc.) but not absolute, the orientation project presupposes the freedom of the actor (a certain freedom, relative but indispensable) which is based on the meaning that the actor gives to the situation.

Between freedom and constraint, between desire and social expectation, the subject makes projects that involve anticipation, forecasting, time management, possibilities and desirability, but also aspirations and desires, in articulation with means and goals. The desired and desired projects, independently of prescribed and legitimised data, are in line with the subject's aspirations. But these projects may be legitimised in the name of values on which they are based and affirmed, or they may be prescribed and depend on the expectations and norms dictated by society. The subject then responds, not according to his aspirations, but according to what he must do, according to what is expected of him, according to what he is asked to be or to do. He is no longer the bearer of his own projects, but of the projects of others. However, whether these projects are desired, legitimised or prescribed, carried, bearing or to be carried, they orient the subject in his future (Esparbès-Pistre, 1997).

In order to be, the subject needs to project himself, because *'to be someone is to construct a past, to value the present time and to organise projects'* (Tap, 1986, 8). Between confidence, mistrust, self-esteem and/or doubt, constantly confronting the reality and limits of the self (real self), and its aspirations, the subject gives meaning to its future. Through the construction of a personal culture, by identifying and appropriating specific values, he or she seeks or builds his or her project, orientates himself or herself to achieve fulfilment. The project can be seen as a milestone in the approach to self-realisation.

When the situation involves areas of uncertainty (illness, personal and family difficulties, etc.) the project can become a strategy for dealing with these uncertainties. *"Strategic orientation allows us to understand how the constraints attached to the present situation are used, i.e. taken into account, according to the objectives to be achieved"* (Béret, 1986, 46). This obviously requires the subject to reflect on himself, on his tastes, aspirations and desires, but also on his fears, anxieties and doubts. But it also implies that they are willing, motivated and able to mobilise, that they are able to manage their potential and resources, to make efforts to integrate socially, to fit in through conformity or innovation, with a view to adapting in order to achieve emotional security and therefore to manage stress and the means to 'bounce back' afterwards.

3. Difficulties in school orientation as a potential source of stress :

These difficulties can lead to "psychological stress", if the adolescent perceives them as threatening, or feels that he/she does not have the personal and social resources to cope with them (Lazarus and Folkman, 1984). Psychological stress is generally focused on negative emotions (anger, fear, anxiety, shame, guilt, sadness, envy, jealousy and disgust), while positive emotions have more of a stress interrupting role (joy, pride, relief and love) (Paulhan and Bourgeois, 1995). Stress is considered here as the set of perceptions of powerlessness and

discomfort that overwhelm the individual when faced with events that are difficult to control (Lazarus and Folkman, 1984).

Stress resides neither in the event nor in the individual, but in the individual-environment transaction. According to Lazarus and Folkman, *"stress is the particular relationship between the individual and the environment, assessed by the individual as exceeding or exceeding his or her resources and endangering his or her well-being"* (1984, 19).

Other questions then arise: What difficulties does the adolescent face with the goal of school orientation? Are these difficulties stressful for them? The aim is not only to find out what obstacles the adolescent encounters in constructing or affirming his or her career plan, but also to know how he or she assesses the difficulties encountered. The difficulties may be diverse and relate to

- the absence of a clearly defined career plan by the young person;
- academic performance not allowing him/her to pursue the desired path;
- the economic (financial) limits of the family ;
- Lack of information about guidance opportunities;
- or lack of support from close family and friends.

The child and the adolescent, in the same way as the adult in the professional environment, are confronted with stress in the school domain, each one doing his own "job". Perrenoud (1994) speaks of the "pupil's job" in relation to school work. This profession of pupil can then, like any other profession, produce a certain stress called school stress. According to Giron: *"we can only talk about stress at school if the school situation is perceived by the pupil as a challenge, i.e. when he feels that what is expected of him exceeds his skills and when he believes that the objective to be achieved is worth the effort required of*

him... The challenge is that of socialisation, that of successfully entering society. The child is therefore confronted with this common thought which takes the form of a pressure to succeed that he will internalise very early on" (2001, 1).

In educational and vocational guidance, the stakes are high, as it is the subject's future that is at stake.

Finding the means to manage all these difficulties often proves difficult, as the young person sometimes lives his or her project in an overly idealised and insistent manner, or aims for immediate achievement rather than the maturation of the project. Through the development of a guidance and integration project, the adolescent seeks to give meaning to his or her life, under the effect of multiple external constraints, through the social obligation that pushes him or her to make a series of decisions relating to his or her future.

The accumulation of such difficulties associated with internal or external pressures can threaten the psychological well-being of the adolescent, increase his or her sense of powerlessness and lead him or her to experience a state of stress that may manifest itself in lassitude, feverishness, depressed mood, physical manifestations (knots in the stomach, tightness in the throat, dry mouth, etc.) (Tap *et al.*, 2002; Esparbès-Pistre and Bergonnier-Dupuy, 2002).

Students may feel a dissonance between their '*ideal*' choice and material, socio-economic, personal and, in particular, emotional constraints. For example, wishing to go into a certain profession, they are hampered in their choice by insufficient material possibilities, by unfavourable economic conditions (lack of job opportunities), by parental expectations opposed to their own, or by their own skills, which they consider limited.

They may also feel '*alien*' to the school guidance situation. Forced to make a choice when they have not developed any plans, they fear that they will regret this premature choice.

However, the situation of school orientation is not stressful '*objectively*', it is '*subjectively*' stressful, depending on the meaning that the adolescent gives to it. Middle and high school are not stressful places in themselves. In fact, they have the opposite vocation. They are meant to be places of security, knowledge, exchange and well-being for children and adolescents.

But unfortunately, secondary schools are also places of marginalisation, through selection or violence. "*Subjected constantly to paradoxical injunctions: from the class (work or you won't succeed), from the school institution (you can't stay here, find a direction, with your level you can't go anywhere), the young person gradually loses all confidence in himself and in the adults in front of him*" (Haut comité de Santé Publique, 1998, 183). Thus, the school keeps many children, for many years, in the experience of failure, in a pathogenic environment for them. It is essentially these young people who develop manifestations of violence against themselves (suicide attempts, risky behaviour with motor vehicles, drug addiction, alcoholism, etc.) against other young people or against the school.) against other young people or against the institution (vandalism, aggression) (*op. cit.*).

4. Differences or inequalities of boys and girls in school and guidance?

It is fair to ask whether boys and girls are equally stressed by school guidance and whether they face the same difficulties at school, since gender inequalities in family and school education are not new.

We borrow some theoretical references from Yves Prêteur's ⁴excellent review of gender issues.

Since the advent of compulsory schooling, despite the struggle of women, it has been difficult for them to '*move from a generalised ban on knowledge (and instruction reserved for men) to a restricted ban, with its translation into school*' (Mosconi, 1994). In their "*Bilan de*

⁴ "*Reading: a 'game' for girls?*" by Y. Prêteur (1996, 160-189).

l'instruction des filles avant la Révolution", Lelièvre and Lelièvre (1991) note that girls' literacy and schooling are lower than those of boys. The political project of the school according to Ferry (of March 1882) is to ensure great stability by maintaining three major dissociations: the school is separated from production, the people's school from that of the privileged, the boys' school from that of the girls. This threefold differentiation was intended to ensure that everyone remained in his or her place, and that everything remained in place (Nique and Lelièvre, 1993). The aim was to educate girls for their role as housewives, as 'indoor' women. Even if today, as a result of recent socio-economic upheavals, the educational trajectories of young people from different backgrounds and their future plans, in relation to changes in the provision of education, have been profoundly rethought in recent decades, certain differences remain. Zazzo (1978, 1982) had already shown that from nursery school onwards, girls show more stability, more self-control and more autonomy in the execution of common tasks. And these better 'adaptive behaviours' enable them to perform better than boys in the preparatory stage. A study of 700 secondary school pupils supports this view and shows that girls have a better command of classroom interactions, make better use of pedagogical communication and manage their "pupil's job" better (Felouzi, 1993). A comparative study carried out in eight OECD countries (Australia, Belgium, France, Greece, Norway, Spain, Switzerland and the United States) confirms that in all cases, girls are both less often behind and more regularly ahead of boys in primary schools (cited by Zazzo, 1993). On the other hand, in terms of educational attitudes and parental behaviour, Verquerre (1989) notes that the main concerns of parents with regard to girls and boys are different: through their practices and education, mothers amplify the differences and consider girls to be much more adult than boys, so that boys are more "natural" and infantile, while girls are more submissive and inhibited, but at the same time more controlled and more "mature".

On the other hand, at the emotional level too, differences appear, with educational practices leading girls to confide in each other more, to speak out, accepting more easily the doubts, fears and tears of girls than of boys. There are also differences in the choice of professions. Some professions are chosen mainly by boys and others by girls, and here again, gender inequalities remain in the area of guidance. And despite the skills of girls, their choice of career path and their career development are not identical to that of boys, not to mention the salary they sometimes receive, the harassment to which they are subjected, etc.

At present, faced with the violence in some schools, some people are even considering returning to single-sex classes, with girls on one side and boys on the other: as if the violence were only between boys and girls (and violence between boys and girls?), as if the interplay of interpersonal relationships was hindering school work (even though it is part of the construction of their identity as women, men and citizens (all equal)).

We can see how gender differences are still present and persistent today. This research attempts to see, beyond the difficulties of orientation encountered by adolescents during the various class transitions, whether these differences between boys and girls persist, and to understand their repercussions on the emotional state of adolescents.

We therefore hypothesise that gender (girl or boy), class (5th to 12th grade) and orientation difficulties have a significant influence on the stress of adolescents in school.

Depending on the gender and class of the students, the number and nature of the difficulties in the orientation process have an impact on the perceived level of stress of secondary school students. For example, the more difficulties they have and the more they cannot control, the more stress they will feel about their academic and professional orientation. Which of the boys or girls will be more stressed? In which classes will the stress related to orientation be the most marked?

5. Methodology.

5.1. Population.

This study concerns 2042 adolescents aged 12 to 20 years and enrolled in classes from the Fifth to the Terminale, their distribution can be seen in the following table:

	Boys	Girls	12 years	13 years	14 years	15 years	16 years old	17 years old	18 -20 years old	Total
5th	38	57	64	29	2					95
4th	31	49		37	33	10				80
3rd	32	20		2	29	13	8			52
2nd	437	386				208	392	198	25	823
1st	246	396			1	5	236	288	112	642
Term	172	178					4	160	186	350
Total	956	1086	64	68	65	236	640	646	323	2042

Table 1: Distribution of the workforce by class, gender and age

Table 1: Distribution of total number for school class, sex and ages.

These students (956 boys and 1086 girls) responded to the questionnaires in their respective public schools and come from a variety of socio-cultural backgrounds.

5.2 Instruments.

Based on the work of Boutinet (1990; 1993), Dubet (1991) and Guichard (1993), we developed an eleven-item questionnaire to which students were asked to answer "yes" or "no".

In order to find out what **guidance-related difficulties** the pupils encountered and to identify the origin of these difficulties, eleven difficulties were proposed to them.

Difficulty n°1: You have difficulties in developing a career plan (academic and/or professional).

Diff. 2: *You would like to go into a post-baccalaureate course or profession but you think you will not succeed.*

Diff. 3: *You lack information that would help you make a choice of direction.*

Diff. 4: *You have too much information and this hinders your choice.*

Diff. 5: *In your environment, your parents or friends encourage you to make a choice that you do not want to make.*

Diff. 6: *You would like more support and help in making your career choices.*

Diff. 7: *You are interested in a job, but you think that there are no job opportunities and this is a problem for you.*

Diff. 8: *You are interested in a profession (or a post-baccalaureate course) but you think you do not have the necessary skills to go down this path.*

Diff. no. 9: *You are interested in a profession (or a post-baccalaureate course), but materially you think that it will not be possible to go down this path.*

Diff. 10: *You are interested in several professions (or post-baccalaureate courses) and you do not know which one to choose.*

Diff. 11: *You have other difficulties regarding your orientation.*

It is interesting to know whether the stress caused by the need to choose a direction is due to :

- the absence of a clearly defined career plan by the young person (questions 1 and 10);
- academic difficulties that prevent them from pursuing their desired path (questions 2 and 8);
- economic hardship (questions 7 and 9);
- a lack of information about guidance opportunities (questions 3 and 4);
- or a lack of support from those around them (questions 5 and 6).

The proposed instruction is: *"The question of educational and/or vocational guidance arises over many years: your guidance may begin before you enter high school and often continues beyond. It is multifaceted and involves making decisions about your future. We*

would like to know what you find difficult in this orientation situation. As a first step, we suggest you answer the following questionnaire (circle the answer you choose): "

A difficulty score is thus calculated by scoring one point for a yes answer and zero for a no answer. When students answered *yes* to one or more of the propositions from 1 to 10, they considered that they were experiencing one or more orientation difficulties. The students who answered no to all 10 propositions and cited another source of stress in item 11, then placed the origin of their stress in other facts of their life. The results of this article will concern only the difficulties of orientation, evoked by the yes answer to these eleven items.

Perceived stress assessed by the Toulousian Stress Scale

The E.T.S. was developed from existing stress scales, in particular the Quebec scale "*Mesure du Stress Psychologique*" (54 items; scale constructed by Lemyre, Tessier and Fillion, 1990). It includes 30 items focusing on the physical and psychological symptoms of stress and on the way the subject experiences them. It provides an understanding of the nature and intensity of stress.

The instruction given in the present research took into account the target population: adolescents in school and was worded as follows "*Think about the choice of school and/or professional orientation that you have to make and the difficulties that you encounter. We would like to know how you are experiencing this situation. We offer you a series of statements followed by five numbers. Circle one of the five numbers that best describes you: between 1 (Not at all) and 5 (Very often). Try to answer all the sentences.*

For each of the 30 items, subjects are asked to rate themselves on a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Principal Component Analysis with *varimax rotation* ⁵on the 30 items of this scale reveals four dimensions, explaining 46.4% of the total variance and meeting both statistical and psychological criteria (Tap et al., 2002).

Factor 1 (32.2% of variance; title: ***Physical manifestations of stress***) consists of 10 items. The internal consistency is = .79. Among these manifestations we can mention cardiac, respiratory, intestinal disorders, etc.

Factor 2 (5.7% of variance; title: ***Depressed Mood***) consists of 9 items. The internal consistency is = .86. This factor corresponds to the set of feelings related to the loss of self-confidence (powerlessness, discouragement), of control over situations and relationships (loneliness, threat, being misunderstood, maladjustment).

Factor 3 (4.5% of variance; title: ***Febrile/Tension***) consists of 5 items. The internal consistency is = .77. This factor is related to hyperactivity and difficulty managing time under the pressure of modern lifestyles.

Factor 4 (4% of variance; title: ***Lassitude***) is composed of 6 items. The internal consistency is = .71. This factor is essentially based on fatigue, loss of energy, feeling empty.

Internal consistency for *the total scale* is strong: .92

The measure of the student's stress will be a score between 30 and 150, obtained from the sum of the subject's responses to the 30 items.

6. Results and interpretations.

Of the 2,042 adolescents, 1,748 (789 boys and 959 girls) said that they were experiencing one or more of the eleven orientation difficulties proposed in the questionnaire.

⁵ The presentation of the statistical validation of the E.T.S. will be the subject of a future publication.

6.1- Orientation difficulties: frequency by gender and class

The majority of the study population declares that they are experiencing difficulties in their educational orientation (85.6% of them). This concerns 82.5% of boys and 88.3% of girls. 167 boys (17.5%) and 127 girls (11.7%) answered *no* to all the difficulties proposed by the questionnaire. These pupils cited a main source of stress other than difficulties in their schooling (14.4% of secondary school pupils).

The responses show the following results:

	Frequency		ANOVA boys/girls
Diff. 1: <i>difficulties in developing a project.</i>	986 (56,4 %) (m= 0.56; SD= 0.50)		F= 0,01 Ddl = 1 P= .919 N.S.
	444 boys (56.3%)	542 girls (56.5%)	
Diff 3: <i>lack of information.</i>	895 (51,2 %) (m= 0.51; SD= 0.50)		F= 1,33 Ddl = 1 P= .250 N.S.
	392 boys (49.7%)	503 girls (52.5%)	
Diff. 6: <i>lack of help, support.</i>	882 (50,5 %) (m= 0.50; SD= 0.50)		F= 22,56 Ddl = 1 p= .001
	349 boys (44.2%)	533 girls (55.6%)	
Diff. 10: <i>choice between several trades.</i>	827 (47,3 %) (m= 0.47; SD= 0.50)		F= 0,13 Ddl = 1 P= .721 N.S.
	377 boys (47.8%)	450 girls (46.9%)	
Diff. 8: <i>Insufficient skills.</i>	740 (42,3 %) (m= 0.42; SD= 0.49)		F= 17,67 Ddl = 1 p= .001
	291 boys (36.9%)	449 girls (46.8%)	
Diff. 7: <i>lack of opportunities.</i>	681 (39 %) (m= 0.39; SD= 0.49)		F= 20,22 Ddl = 1 p= .001
	262 boys (33.2%)	419 girls (43.7%)	
Diff No. 2: <i>self-doubt.</i>	584 (33,4 %) (m= 0.33; SD= 0.47)		F= 5,80 Ddl = 1 p= .016
	240 boys (30.4%)	344 girls (35.9%)	
Diff. 9: <i>Material difficulties.</i>	392 (22,4 %) (m= 0.22; SD= 0.42)		F= 4,28 Ddl = 1 p= .039
	159 boys (20.2%)	233 girls (24.3%)	
Diff. 11: <i>Other difficulties.</i>	288 (16,5 %) (m= 0.16 - SD= 0.37)		F= 3,30 Ddl = 1 P= .070 N.S.
	116 boys (14.7%)	172 girls (17.9%)	
Diff. 5: <i>peer pressure.</i>	191 (10,9 %) (m= 0.11; SD= 0.31)		F= 0,02 Ddl = 1 P= .903 N.S.
	87 boys (11.0%)	104 girls (10.8%)	

Diff. 4: <i>Too much information.</i>	136 (7,8 %) (m= 0.07; SD= 0.27)		F= 10,04 Ddl = 1 p= .002
	79 boys (10.0%)	57 girls (5.9%)	

Table 2: Distribution of numbers (boys/girls) for orientation difficulties.

Table 2: Distribution of total number (boys / girls) for difficulties' advice.

The difficulties proposed by the questionnaire did not, therefore, receive the same frequency of response from the pupils. In particular, item No. 1 on *difficulties in drawing up a career plan* appeared to be the problem encountered by the greatest number of pupils, whereas *too much information* (item No. 4) was a problem for only 7.8% of them.

Some of these difficulties were perceived differently by **girls and boys**. By analysis of variance (ANOVA), we observe that among these pupils who say they encounter difficulties in their educational and vocational orientation, girls are more likely to feel a lack of support (difficulty 6), to think they lack skills (difficulty 8), to consider that they lack opportunities (difficulty 7), to doubt themselves (difficulty 2) and to experience material difficulties in their orientation (difficulty 9). The boys more often mentioned only too much information (difficulty 4).

These results show that the difficulties cited by more than half of the students depend on the environment. These are: constraints that may hinder the professional project (difficulty 1); lack of information (difficulty 3) and lack of external support (difficulty 6).

Furthermore, significant differences **according to the students' class** appear in the analysis of variance. The main results can be analysed in the table below.

	<i>Class averages</i>	<i>Gender averages</i>	<i>Standard deviation</i>	<i>ddl</i>	<i>F</i>	<i>Threshold of significance.</i>

Difficulty 10	5th: 0.61 4th: 0.49 3rd: 0.43 2nd: 0.45 1st: 0.52 Term: 0.39	G= 0.57; F= 0.64 G= 0.54; F= 0.47 G= 0.43; F= 0.42 G= 0.48; F= 0.42 G= 0.49; F= 0.54 G= 0.43; F= 0.36	0,50	5	4,06	.001
Difficulty 3	5th: 0.53 4th: 0.63 3rd: 0.63 2nd: 0.45 1st: 0.62 Term: 0.40	G= 0.54; F= 0.53 G= 0.61; F= 0.64 G= 0.53; F= 0.79 G= 0.48; F= 0.42 G= 0.56; F= 0.66 G= 0.41; F= 0.38	0,50	5	12,24	.001
Difficulty 1	5th: 0.50 4th: 0.40 3rd: 0.57 2nd: 0.54 1st: 0.67 Term: 0.47	G= 0.49; F= 0.51 G= 0.39; F= 0.40 G= 0.53; F= 0.63 G= 0.57; F= 0.51 G= 0.65; F= 0.68 G= 0.47; F= 0.47	0,50	5	9,18	.001
Difficulty 2	5th place: 0.41 4th: 0.48 3rd: 0.41 2nd: 0.37 1st: 0.28 Term: 0.25	G= 0.35; F= 0.45 G= 0.50; F= 0.47 G= 0.40; F= 0.42 G= 0.31; F= 0.44 G= 0.27; F= 0.29 G= 0.25; F= 0.26	0,47	5	6,07	.001

Table 3: Results of the ANOVA between Classes and Difficulties.

Table 3: Results of ANOVA between School class and difficulties.

Thus, in cinquième, the problem of *choosing between several future occupations* (difficulty n°10; $m = 0.61$) seems especially difficult ($F = 4.06$; $p = .001$). Pupils in the fourth year ($m = 0.63$) and the third year ($m = 0.63$) reported a lack of information on their orientation (difficulty n°3; $F = 12.24$; $p = .001$). However, the *difficulty in drawing up a project* (difficulty n°1) was more strongly felt by the pupils in Troisième ($m = 0.57$) and especially in Première ($m = 0.67$), whereas it was expressed less by the pupils in Terminale ($m = 0.47$) ($F = 9.18$; $p = .001$). We note that the *lack of information* (difficulty No. 3) concerning orientation, the *difficulties in drawing up a career plan* (difficulty No. 1) and the *difficulties in choosing between several occupations* show a similar trend among secondary school pupils alone. In the Première class, the *lack of information* seems to be important in the eyes of the lycée

students and is accompanied by *difficulties in choosing and developing a career plan*. This is less true in the second year of secondary school and decreases in the final year of secondary school, where these difficulties seem to fade away, the focus on the baccalaureate examination could explain this decrease.

The difficulty of *choosing between several occupations* decreased significantly from junior high to high school, despite a *peak* in Première. *Doubt* about oneself and the realisation of one's project decreases throughout the schooling ($F= 6.07$; $p= .001$), with nevertheless an increase in the fourth grade ($m= 0.48$), the class where doubt appears to be highest.

6.2. The nature of the difficulties and their links.

In order to verify the links and differences between the categories of difficulties, we carry out a Multiple Correspondence Factor Analysis (MCA) on the 11 items. This analysis leads us to specify the position of the items on a graph presenting the first two factors orthogonally.

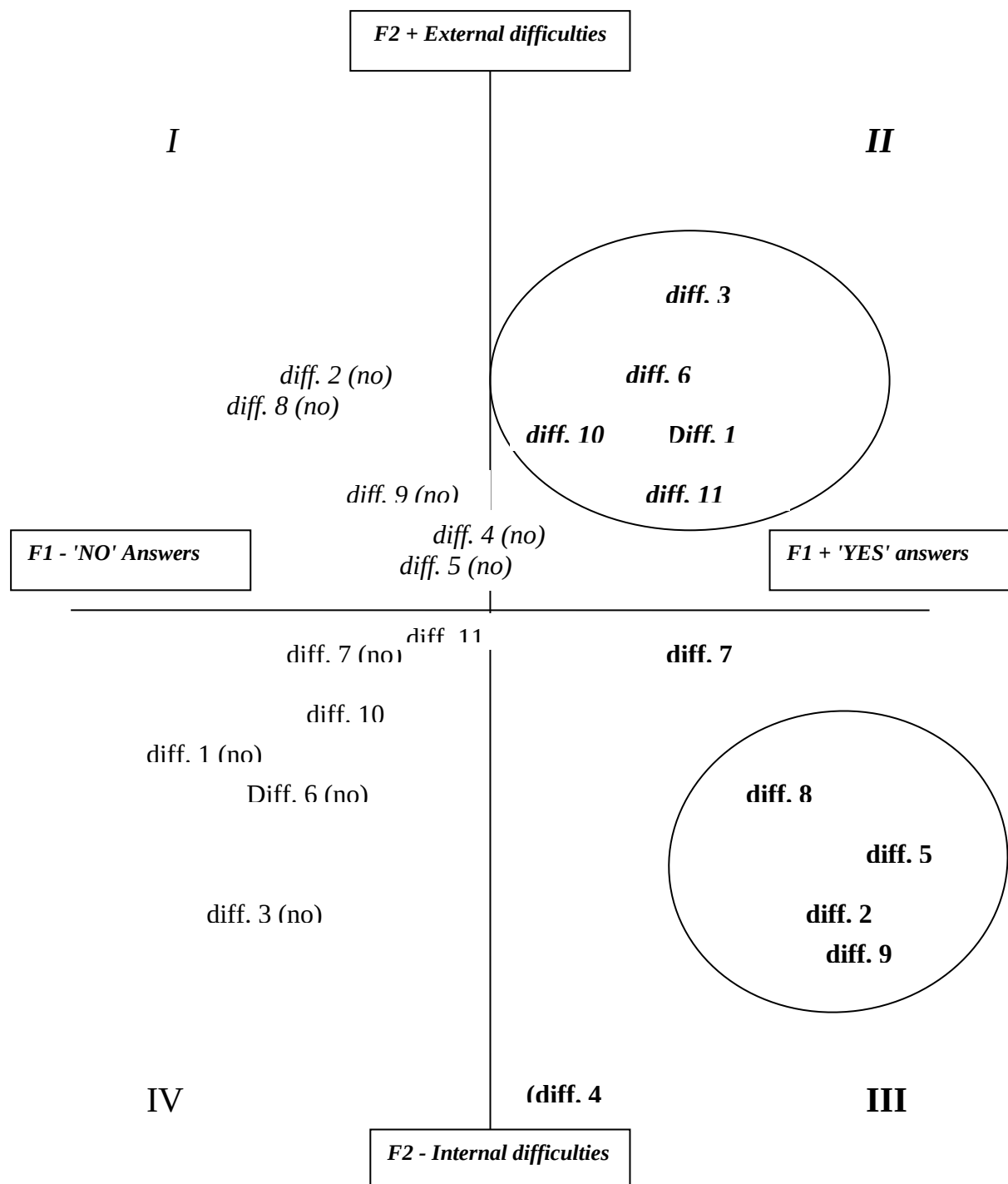


Figure 1: 1 x 2 factorial field (AFCM) for the orientation difficulties questionnaire.

Figure n°1 : Factorial plan 1 x 2 (AFCM) about the difficulties'advice questionnaire.

The coordinates specifying the positions of the items are shown in *Appendix 1*. The responses are thus positioned according to two factors. Factor 1 (horizontal axis) thus separates the 'yes' responses from the 'no' responses, while factor 2 (vertical axis) confirms the dichotomy between external and internal difficulties. Dial II contains the choice of difficulties 1; 3; 6; 10 and 11. These are of the external type involving an unfavourable environment in which the subject lacks information and help. Dial III concerns difficulties 2; 5; 8; 9 which reveal the primacy of internal difficulties showing a focus on oneself and one's own consequences by a motivation blocked by self-doubt, pressure felt, doubt about one's skills, or about the means.

The statistical result of this factorial analysis validates the separation between internal and external difficulties and will therefore make it possible to calculate two partial scores added to the overall score calculated from the total of positive responses. Difficulty n°4 (*Too much information*), which is off-centre and separate from the group of difficulties 2, 5, 8 and 9 and which, moreover, is the least cited by the adolescents, will not be taken into account for the calculation of the internal difficulty score. Similarly, difficulty n°7 (*Lack of opportunities*), which is close to the axis of factor 2, is therefore not discriminating in the internal / external distinction revealed by the AFCM.

6.3. The number of difficulties: analysis by gender and class

The instruction asked the students to answer *yes* or *no* to the difficulties proposed. We can thus count the frequency of *yes* answers resulting in a difficulty score between 1 and 10 (the score of 11 was not obtained by any student).

The number of difficulties cited by the students is distributed as follows:

<i>Number of difficulties</i>	<i>Frequency</i>	<i>For One Hundred</i>	<i>Percentage cumulative</i>
1 single diff.	250	14,3 %	14,3 %
2 difficulties	271	15,5 %	29,8 %
3 difficulties	315	18 %	47,8 %
4 difficulties	310	17,7 %	65,6 %
5 difficulties	253	14,5 %	80,0 %
6 difficulties	165	9,4 %	89,5 %
7 difficulties	118	6,8 %	96,2 %
8 difficulties	54	3,1 %	99,3 %
9 difficulties	8	0,5 %	99,8 %
10 difficulties	4	0,2 %	100 %
11 difficulties	0	0 %	
Total	1748	100 %	

Table 4: Number of difficulties cited.

Table 4: Number of quoted difficulties.

The average number of orientation difficulties for our population is 3.8. On average, therefore, the students experience almost four difficulties (out of the eleven proposed) in their educational and professional orientation.

The number of difficulties appears to be higher from the fifth grade ($m = 3.9$) to the fourth grade ($m = 4.4$), then decreases until the second grade ($m = 3.7$). It increases again in Première ($m = 4.1$) and falls in Terminale ($m = 3.2$).

The analysis of variance shows significantly that there are differences between girls and boys ($F = 16.91$; $m = 3.78$; $SD = 1.96$; $ddl = 1$; $p = .001$) and between classes ($F = 9.39$; $m =$

3.78; SD= 1.96; ddl= 5; $p = .001$) in the number of orientation difficulties perceived by students.

In fact, the boys felt that they had an average of 3.6 difficulties with orientation, whereas the girls perceived an average of 4.0. Whatever the class, girls therefore claim to have more difficulties than boys, except in Terminale. The differences between boys and girls vary from one class to another (see Table 5):

	<i>Class averages</i>	<i>Standard deviation</i>
Boys	5th place: 3.46 4th: 4.18 3rd: 3.80 2nd: 3.55 1st: 3.67 Term: 3.12 Total: 3.54	1,89 1,76 1,61 1,92 1,91 1,94 1,91
Girls	5th: 4.25 4th: 4.58 3rd: 4.63 2nd: 3.81 1st: 4.28 Term: 3.17 Total: 3.97	1,96 1,74 2,19 2,02 1,89 1,98 1,99
Total	5th place: 3.92 4th: 4.42 3rd: 4.12 2nd: 3.68 1st: 4.05 Term: 3.15 Total: 3.78	1,96 1,75 1,88 1,97 1,92 1,96 1,96

Table 5: Average number of difficulties by gender and class

Table 5: Means Number of difficulties according to sex and class.

With regard to the two categories of difficulties (internal and external) highlighted by the A.F.C.M., we observe significant differences according to the gender and class of the pupils.

	Internal difficulties		External difficulties	
	<i>Class averages</i>	<i>Standard deviation</i>	<i>Class averages</i>	<i>Standard deviation</i>
Boys	5th: 0.86 4th: 1.61 3rd: 1.13 2nd: 0.97 1st: 0.96 Term: 0.93 Total: 0.98	0,95 1,07 1,14 1,00 1,08 1,00 1,03	5th: 2.19 4th: 2.04 3rd: 2.17 2nd: 2.11 1st: 2.32 Term: 1.84 Total: 2.13	1,27 0,96 1,09 1,25 1,26 1,40 1,27
Girls	5th: 1.25 4th: 1.62 3rd: 1.58 2nd: 1.27 1st: 1.12 Term: 0.86 Total: 1.18	1,07 0,98 1,07 1,08 1,02 0,99 1,05	5th place: 2.43 4th: 2.20 3rd: 2.42 2nd: 2.09 1st: 2.64 Term: 1.89 Total: 2.29	1,29 1,10 1,07 1,33 1,28 1,30 1,32
Total	5th: 1.09 4th: 1.62 3rd: 1.31 2nd: 1.12 1st: 1.06 Term : 0,90 Total: 1.09	1,03 1,01 1,12 1,05 1,04 0,99 1,05	5th: 2.33 4th: 2.14 3rd: 2.27 2nd: 2.10 1st: 2.52 Term: 1.87 Total: 2.22	1,28 1,05 1,08 1,29 1,28 1,35 1,30

Table 6: Average number of internal and external difficulties by gender and class

Table 6: Means Number of internals and externals difficulties according to sex and class.

Girls experience both more internal ($F= 15.71$; $m=1.09$; $SD= 1.05$; $ddl= 1$; $p= .001$) and external ($F= 3.98$; $m=2.22$; $SD= 1.30$; $ddl= 1$; $p= .046$) difficulties regardless of class.

Furthermore, students did not report the same number of internal difficulties ($F= 6.37$; $m=1.09$; $SD= 1.05$; $ddl= 5$; $p= .001$) and external difficulties ($F= 11.00$; $m=2.22$; $SD= 1.30$; $ddl= 5$; $p= .001$) depending on the class they were in.

The evolution of the average number of internal and external difficulties can be seen in the following smoothed curve graph:

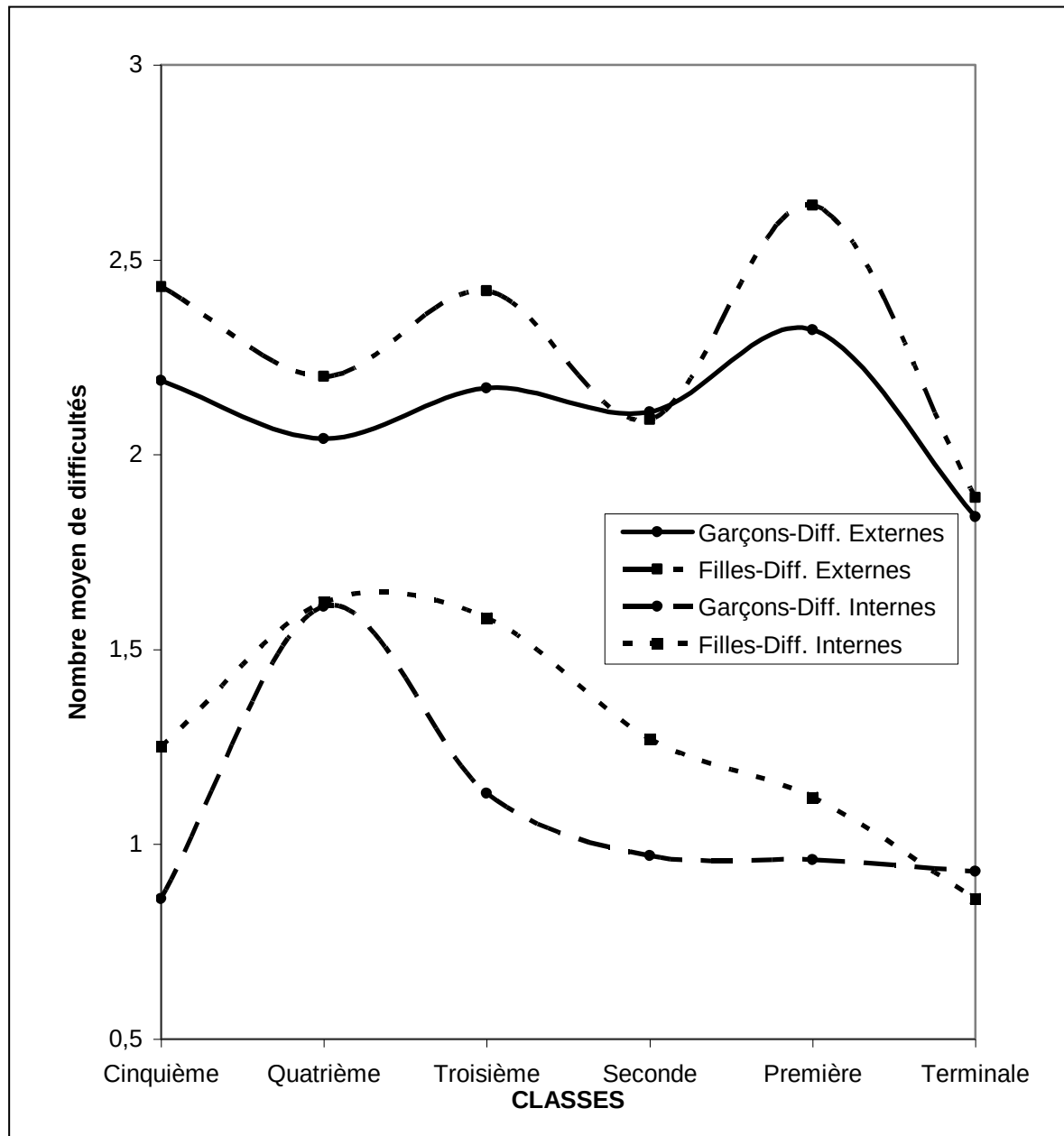


Figure 2: Average number of internal and external difficulties by gender and class

Figure 2: Mean number of internals and externals difficulties according to sex and class.

The average number of internal difficulties is much higher in the fourth grade ($m = 1.6$) for all. These very high internal difficulties in the fourth year for boys and girls and in the third year for girls, correspond to a crisis in the 15 year-old age group, including but not limited to problems of orientation. For both boys and girls, this number gradually decreases in the classes up to Terminale. The closer pupils get to the baccalaureate, the more internal difficulties concerning their academic and professional orientation fade away.

The average number of external difficulties decreased slightly from the fifth grade ($m = 2.3$) to the second grade ($m = 2.1$) before rising to a higher level in the first grade ($m = 2.5$) ($F = 11.01$; $m = 2.22$; $SD = 1.30$; $ddl = 5$; $p = .001$) and significantly more so for girls ($m = 2.6$) than for boys ($m = 2.3$) ($F = 3.98$; $m = 2.22$; $SD = 1.30$; $ddl = 1$; $p = .046$). This average number drops in the final year of secondary school ($m = 1.9$) as it does for internal difficulties.

The link between the number of difficulties encountered and the perceived level of stress among students should now be analysed.

6.4. The number of orientation difficulties and the level of perceived stress.

According to our hypothesis, the more orientation difficulties students encounter (explanatory variables), the more stressful they will experience these difficulties (explanatory variable).

Statistical analysis by linear regression (stepwise method) produces positive and significant regression coefficients for the four dimensions of stress as well as for the total stress level. We show, therefore, that the number of difficulties related to school orientation encountered by the students favours the *physical manifestations* of stress ($B = .840$; $R^2 = .066$; $F = 122.68$; $p = .001$); *feverishness and tension* ($B = .889$; $R^2 = .143$; $F = 290.75$; $p = .001$);

depressed mood ($B= 1.32$; $R^2= .147$; $F= 301,34$; $p= .001$); *lassitude* ($B= .804$; $R^2= .102$; $F= 198,94$; $p= .001$) and overall increase in perceived stress ($B= 3.86$; $R^2= .151$; $F= 310,99$; $p= .001$)

Middle and high school students who report the most difficulties with guidance are the ones who perceive themselves to be the most stressed.

The differences between boys and girls in perceived stress levels can be seen in the following histogram:

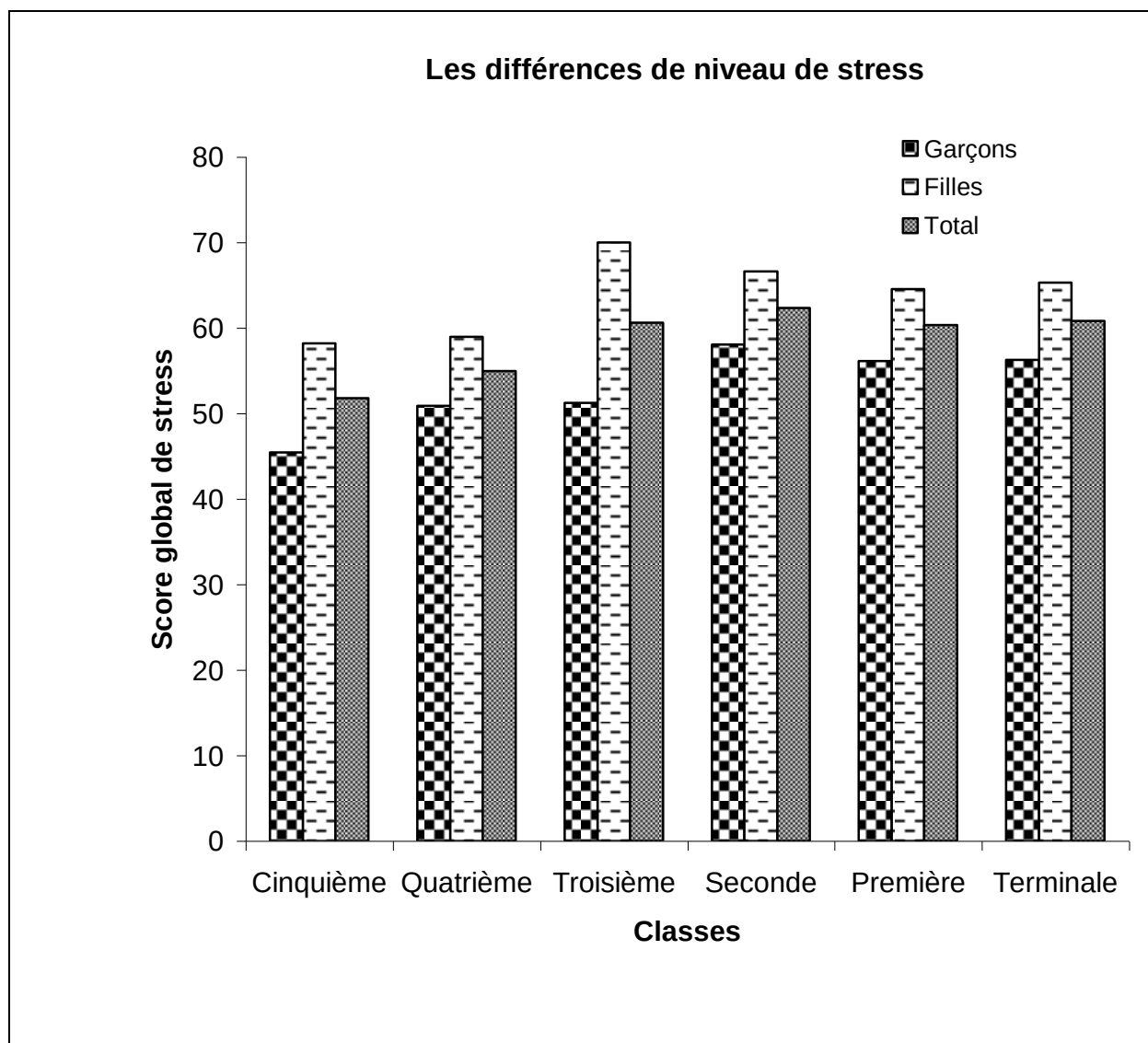


Figure 3: Average level of stress by gender and class

Figure 3: Mean level of stress according to sex and class.

Girls ($m = 63.94$) are on average more stressed than boys ($m = 53.03$) ($F = 54.96$; $m = 60.98$; $SD = 19.5$; $ddl = 1$; $p = .001$) regardless of class. They appeared to be most stressed in the ninth grade, whereas the boys experienced their maximum stress level in the second grade. Moreover, the level of stress increased significantly with the advancement to the next grade ($F = 6.28$; $m = 60.98$; $SD = 19.5$; $ddl = 5$; $p = .001$).

For the different types of stress manifestations, the girls more often mentioned physical manifestations ($m = 20.32$ - $SD = 6.00$) and feverishness ($m = 15.74$ - $SD = 5.58$) in the ninth grade. They felt more lassitude from this class onwards and then in high school. They showed more depressed mood, weariness and restlessness in high school compared to the fifth and fourth grades. Among boys, the class in which all manifestations of stress are highest is the 10th grade. Finally, high school students report more stress than middle school students.

6.5. The influence of the type of orientation difficulty on the level of stress.

In a more qualitative way, we now try to assess the influence that external, internal and individual difficulties have on stress in adolescents.

Influence of the external nature of the difficulties on the stress of secondary school students.

As before, linear regression analysis verified the influence of external difficulties on the students' stress level ($B = 3.553$; $R^2 = .056$; $F = 103.788$; $p = .001$).

External orientation difficulties involving an unfavourable environment have a very significant influence on stress and its different manifestations. Thus, lack of information, support, help and other difficulties lead adolescents to feel stressed. This is manifested by weariness ($B = .735$; $R^2 = .037$; $F = 67.83$; $p = .001$), feverishness and tension ($B = .984$; $R^2 = .077$; $F = 144.70$; $p = .001$), physical manifestations of stress ($B = .626$; $R^2 = .016$; $F = 28.02$; $p = .001$). These difficulties arising from the adolescent's environment also favour the appearance

or accentuation of depressed mood ($B = 1.208$; $R^2 = .054$; $F = 99.45$; $p = .001$) as a manifestation of perceived stress.

Influence of the internal nature of the difficulties on the stress of secondary school students.

Similarly, a new linear regression analysis allows us to verify the assumed influence of internal difficulties on stress.

Internal orientation difficulties involving motivation blocked by self-doubt, lack of competence, lack of means, perceived pressure, have a very significant influence on stress ($B = 6.549$; $R^2 = .124$; $F = 247.05$; $p = .001$), but also on the different manifestations of it ($p = .001$ for the four dimensions of stress).

Adolescents with internal or external orientation difficulties are therefore more stressed, and express this.

Influence of the nature of the difficulties on the stress of secondary school students.

But which difficulties in particular influence stress in general? An analysis of variance (including the 11 difficult situations) allows us to check which ones influence the overall level of stress in school adolescents.

Self-doubt (difficulty 2; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 147.31$; $p = .001$) causes adolescents to have a high level of stress (mean score of 68.65), compared to those who do not have this difficulty (57.13 on average). The feeling of not having sufficient skills, (difficulty 8; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 106.19$; $p = .001$) is also very stressful (66.43 on average) compared to those who doubt their skills less (average score of 56.98).

On the other hand, strong peer pressure to choose a career (difficulty 5; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 38.54$; $p = .001$) is a source of stress for adolescents ($m = 69.16$) compared to those who do not feel this pressure ($m = 59.98$). The same is true when help and support are perceived to be insufficient (difficulty 6; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 84.48$; $p = .001$) ($m = 65.13$ vs. others: 56.75). Parents and family members must find the right distance from their teenagers, not leaving them alone to make this difficult choice, but not forcing them either. Especially since the lack of opportunities (difficulty 7; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 41.86$; $p = .001$; average stress = 64.71 compared to those for whom this is not a difficulty: 58.60) and material difficulties (difficulty 9; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 55.37$; $p = .001$; mean stress = 67.33 compared to those who do not feel this difficulty: 59.14), also stress them.

But, beyond these problems, other difficulties encountered by adolescents (difficulty 11; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 56.06$; $p = .001$) cause more stress ($m = 68.72$) than those who do not have these difficulties ($m = 59.45$). These difficulties can be emotional, medical, etc. and hinder or impede them in their orientation. This shows us that guidance is embedded in a socio-economic environment that must be taken into account, with particular problems and demands specific to the environment or the family, but that above all it depends on the pupil's personal background.

Difficulties in developing a project (difficulty 1; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 36.90$; $p = .001$) have a less strong but significant influence than the others on the adolescents' stress level ($m = 63.44$ vs $m = 57.79$). The same is true for the lack of information (Difficulty 3; $m = 60.98$; $SD = 19.50$; $ddl = 1$; $F = 13.51$; $p = .001$); ($m = 62.65$ vs $m = 59.23$).

Taken separately, we perceive here that two difficulties do not have a significant influence on stress in general: too much information (difficulty 4; $m = 60.98$; $SD = 19.50$; $ddl =$

1; $F= 3.86$; $p= .050$) ($m.= 64.13$ vs. $m.= 60.71$) and the choice between several occupations (difficulty 10; $m= 60.98$; $SD= 19.50$; $ddl= 1$; $F= 2.74$; $p= .098$).

7. Discussion and Conclusion.

The aim of the present study was to verify the existence of links between orientation difficulties (according to their number and nature, internal or external) and the level or dimensions of stress, in 2042 secondary school students (12 to 20 years old), boys and girls.

The fact that 85.6% of the pupils declared having been affected by at least one of the eleven difficulties proposed is already a revealing result confirming that obtained by Rodriguez-Tomé and Bariaud (1990); but it was of course necessary to verify the link between the number and nature of these difficulties and the overall level of stress. It was also necessary to verify the variation of the link according to gender or class.

The results presented show the following:

- 1- The higher the number of difficulties mentioned, the higher the overall stress. This link is also significant for the different dimensions of stress (tension - feverishness, depressed mood, lassitude and physical manifestations).
- 2- However, three difficulties are more clearly correlated with stress: self-doubt (difficulty 2), insufficient skills (difficulty 8) and insufficient help and support (difficulty 6). Two of these difficulties are of an internal nature (self-devaluation), the third introduces an external difficulty, certainly, but involving the insufficiency of relational proximity. The more formal variables concerning jobs, information or material pressures are less related to the level or nature of students' stress.
- 3- Finally, regression analysis shows that external orientation difficulties are more strongly related to feverishness and tension, while internal difficulties are more clearly correlated with depressed mood ($B= 2.31$; $R^2= .128$; $F= 256.47$; $p= .001$).

- 4- A comparison of the responses of girls and boys leads to the following observations: more girls than boys mentioned at least one difficulty (88.3% compared to 82.5%), and more boys than girls mentioned extracurricular difficulties. The only one chosen more often by the boys, "*too much* information", undoubtedly implies a critical attitude towards the school institution (*see Tables 2 and 3*). Moreover, girls are more stressed than boys (*see Graph 2*), both in terms of the level and nature of the stress (weariness or tension - feverishness or depressed mood with physical manifestations). The correlation between difficulties and stress is only significant for boys for the two internal difficulties of feeling doubtful (difficulty 2) and insufficient skills (difficulty 8). The same difficulties are even more strongly linked to stress in girls, but the high correlations are also found for the difficulties of project development (difficulty 1), insufficient help (difficulty 6) and material difficulties (difficulty 9).
- 5- Classes also play a role in the expression by young people of their difficulties in adapting. Four difficulties are experienced differently depending on the grade. The internal difficulty linked to self-doubt was at its peak in the fourth year, then gradually declined until the final year. Conversely, the difficulty in developing a project progresses, peaks in *Première*, then falls in *Terminale*. If we take into account the overall number of difficulties chosen, it should be noted, however, that middle school students choose the most difficulties (in order, the *Quatrième*, then the *Troisième* and finally the *Cinquième*) and high school students choose the least (*Première*, *Terminale* and *Seconde*).

These results reveal a significant contradiction with regard to the management of stress caused by school and career orientation problems among adolescents. Indeed, the link observed between guidance difficulties and the level of stress conceals significant

differences, in particular between classes. Stress seems to increase from the fifth grade to the final year of secondary school, while the number of difficulties, and mainly internal difficulties, tends to decrease. It thus appears that the older students adopt external views while showing a high level of stress. According to Mallet, "*the unknown, no doubt, is a source of anxiety, but the knowledge of a reality that involves real dangers can also be such a source*" (2002, 611). The fact that they do not express self-doubt or uncertainty about their competences could show a defensive aspect useful for their adaptation.

The analysis of the correlations of each of the difficulties with the level of stress shows the privileged link between internal difficulties and the level of stress in general, whatever the class and the gender of the pupils.

The internal aspect revealed by the difficulties related to *self-doubt* (Difficulty 2) and *insufficient skills* (Difficulty 8) is the one that dominates in explaining the level of perceived stress. This stress is therefore not related to all difficulties, it is particularly related to self-doubt. According to Mirels, Greblo and Dean (2002), individuals who doubt their ability to make appropriate judgements or decisions often wait for others to decide. In the case of important decisions, such as the choice of educational and professional orientation, self-doubters tend to hesitate between several often incompatible possibilities and they find decision making costly. Their approach to decision making is subject to their uncertainty and is usually associated with low self-esteem (Oleson et al., 2000) and chronic anxiety (Mirels et al., 2002).

Older students are the ones who externalise the origin of their difficulties the most, while they consider themselves the most stressed. Regarding the internal-external balance that evolves during schooling, it is plausible that older students, having overcome more obstacles, see fewer difficulties related to their personal characteristics. Their tendency to deny that they are in doubt would be a non-effective defensive mechanism. Indeed, the

impression of no longer being in control of difficulties since they come from outside actually increases the level of stress. The development of an external locus of control leading to refusal strategies (based on denial of the reality of the problem; on alexithymia or on doing something more pleasant) is thus affirmed as a dysfunctional strategy in the management of stress linked to the academic and/or professional orientation of French high school students.

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Annex 1:

	<i>Answer 'YES'.</i>		<i>Answer 'NO'.</i>	
	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 1</i>	<i>Factor 2</i>
Diff. 1: <i>difficulties in developing a project.</i>	.48	.25	- .61	- .32
Diff. 2: <i>self-doubt.</i>	.73	- .61	- .36	.31
Diff. 3: <i>lack of information.</i>	.50	.58	- .52	- .61
Diff. 4: <i>Too much information.</i>	.12	- 1,57	-.01	.13
Diff. 5: <i>peer pressure.</i>	.81	- .58	- .10	.07
Diff. 6: <i>Insufficient help, support.</i>	.43	.36	- .44	- .37
Diff. 7: <i>lack of opportunities.</i>	.51	- .12	- .32	.08
Diff. 8: <i>Insufficient skills.</i>	.63	- .41	- .47	.30
Diff. 9: <i>Material difficulties.</i>	.78	- .73	- .23	.21
Diff. 10: <i>choice between several trades.</i>	.29	.25	-.26	- .22
Diff. 11: <i>Other difficulties.</i>	.41	.20	- .08	- .04

Contributions (values assigned to items) on the factors of the factor analysis.

Contributions (values assign to items) on factorial analysis factors.