

An Innovative Tool To Track The Difficulties Of Adolescents Aged Between 11 And 16 Years Old: R.E.U.S.S.I.T.E.

Emile-Henri Riard

Professeur, Centre Amiénois de Recherche en Education et Formation (CAREF)
Université de Picardie Jules Verne, France

Jean-William Wallet

Professeur, Centre Amiénois de Recherche en Education et Formation (CAREF)
Université de Picardie Jules Verne, France

Pilios – Dimitris Stavrou

3Docteur Européen en Psychologie Clinique
Laboratoire de Psychologie Appliquée (LPA)
Université de Picardie Jules Verne, France

Resumé

L'aide des professionnels académiques à la construction du projet professionnel des pré-adolescents et adolescents est souvent insuffisante à une prise de décision correspondant à leurs intérêts et compétences, ne disposant que de données partielles (tests ou comportements scolaires). Destiné à ces professionnels, REUSSITE, outil synthétique de repérage des difficultés inclut l'ensemble des dimensions de la construction du projet : psychomotrices ; cognitives et intellectuelles ; psychoaffectives et psychosociales.

Sont successivement abordés : situation des adolescents et ressources académiques; présentation abrégée de REUSSITE et de ses fondements conceptuels ; modalités de validation de l'outil; une interprétation fondée sur la stratégie développée par les élèves.

Mots-clef : Adolescents difficultés de construction du projet; batterie composite; parents et professionnels académiques; approche holistique, psychologie consultative.

Abstract

Helping academic professionals in the construction of pre-teens and teens professional project is often insufficient to lead to decision making that suit their interests and skills due to availability of only partial data i.e. test or academic behaviors. For these professionals, REUSSITE, is a synthetic tool for detecting problems including all dimensions of the project construction: psychomotor; cognitive, intellectual; psycho-affective and psycho-social.

Will be successively discussing in turn: situation of adolescents and academic resources; abbreviated presentation of REUSSITE and its conceptual foundations; means of validation of the tool and an interpretation based on the strategy developed by the students.

Keywords: Adolescents; difficulties in project; composite test; R.E.U.S.S.I.T.E. parents and academic professionals; holistic approach, counseling psychology

INTRODUCTION

REUSSITE (Réussite Elèves : Unité du Socle de Savoirs Intégrés Transférables Efficients, Academic success: department of Integrated Transferable and Efficient knowledge base) aims at responding to the lack of a sufficiently synthetic and representative tool involving the different teenagers' professional projects construction components that could help the school professionals such as head of school, head teachers and career guidance officers. All this, using a short duration test with simple application on a collective or individual basis, that pinpoints and deals with the identified difficulties.

Existing tests generally handle the cognitive aspect of this phenomenon. Thus, the components that could help to guide the youngsters' choice and project construction would not take into account psychomotricity dimension or psycho-social/psycho-affective dimension as a whole. As such, the adolescents' projects are deprived from the start of certain elements that could be used as guidelines or that could help to put together projects that would genuinely match with the teenagers' actual aspirations and competencies.

REUSSITE has taken into account these significant components of adolescents' development process (psychomotricity, cognitive/intellectual and psycho-social/psycho-affective aspects), as such suggests a holistic approach which prerequisite has been confirmed (Catheline, 2007) and thereby responds to the definition of the term project that has been used in this research work.

Project comes from the latin word *projicere*, meaning to throw far ahead of oneself. It requires a mental operation prior to reality and implies the quest of a singular solution that does not pre-exist, following numerous possibilities full of uncertainties (Boutinet, 1991).

During adolescence, projecting can be defined as an act of commitment from the subject as a whole. It is the guiding thread that runs from one end to another of life, putting together and involving dependence between past, present and future, cognitive, affective and social and concerns reality and imaginary dimensions (Riard, 2006 ; Stavrou, 2010, 2014; Drigas, Kouremenos, Vrettaros, Karvounis and Stavrou, 2009).

In the approach that has been kept, it is implied that a project has two principal aspects that refer to the production and the reproduction functions that complement sets of values.

And, when applied to early adolescence, REUSSITE suits the prevention perspective.

Building on observations based on the resolution of minor sensorimotor, intellectual and cognitive problems involved in simple and complex concrete operations as envisioned by Piaget (1974), the "RÉUSSITE" tool seeks to address items with regard to significant elements of the adolescent process. It also seeks to identify operational shortcomings among the young people studied which could eventually hamper with varying severity, the evolution of their socialisation included in their professional project as well as from a psychosocial and psycho-affective angle. Once identified, these (potential) difficulties can be the focus of intervention carried out by professionals, thereby giving back meaning to these students' schooling. This tool also implies an alternative approach to students by teachers - more attentive to their difficulties, comprehensive in nature, requiring sound training based on these principles.

Thus, once identified, these (potential) difficulties can be the focus of intervention carried out by professionals, thereby giving back meaning to these students' schooling. This tool also

implies an alternative approach to students by teachers - more attentive to their difficulties, comprehensive in nature, requiring sound training based on these principles.

The chosen approach mainly completes the works of Crites (1962) and Supper (1988). These authors have relied on subject-specific competencies, reasoning, interests, motivation or attitudes.

We will successively address adolescents and the challenges they face in constructing their project as well as the educational institution's approach (1); the RÉUSSITE tool with regard to its content, development and implementation (2); its validation (3); and finally its impact on adolescents' projects (4).

ADOLESCENTS AND DIFFICULTIES IN PROJECT CONSTRUCTION: A SITUATION ANALYSIS Approaches

Our aim is to find out how adolescents' thinking process takes place. Clear intellectual thinking is different from intuitive thinking and, according to Bachelard (2005), is not a process of reflective thinking. The interest sought is that of explained, justified and articulated responses within a certain rationality level, a point of view explained by Merleau-Ponty (1964).

Various national and international studies have shown that an increasing number of adolescents encounter difficulties when it comes to adhering to their project, and even more so when they prepare themselves by setting up learning or attempt to develop skills adapted to their desires. As Catheline (2007, p.1) points out, "these difficulties are not new but are (...) becoming a real social phenomenon". Their "explanation" has changed. The same author argues that "how academic failure (morals - the child's laziness - medical - intellectual or instrumental deficiency - psychological - desire or refusal to learn - and - social) is interpreted is a question of congruence between the family's cultural values and those expected by the school".

For some of these young people, these difficulties also concern access to a level of logic and problem resolution which involves conceptual and abstract intelligence. From a developmental and pedagogical point of view, many studies have argued that the principle cause of these difficulties resides in the imperfect and unbalanced access to spatial and temporal references (static references, dynamic references), characteristic of the simple and complex concrete level of intelligence. Indeed, it often involves the more or less systematic absence or error of transfer as well as the generalisation capacity of the above-mentioned positions. Also worth noting is that when faced with difficulty, the students, their families and their teachers tend to reinforce the students' already recognised capacities which constitute their strengths rather than work on their weaker capacities (for example another discipline), thereby leading to an imbalance. In each and every case, this leads to the progressive exclusion of capacities that the students do not make use of to construct their project, which, improved and restored, could ensure a project much more in tune with the subject. However, it is possible that problems are not dealt with because they remain unidentified. As Bullinger (1990) has shown in the sensory and locomotor field, and Dolle and Bellano (1989) in cognitive remediation, the spatio-temporal dimension organises the problems identified. Moreover, it is worth noting that the young people identified as being in difficulty sometimes encounter even greater difficulty in discriminating the different roles and status of their entourage, as well as the relationships they maintain within their school and/or privately, both with themselves and with others (adults and peers). Finally, a point that has often been neglected is that these difficulties as well as the directions taken within the project can also relate to the process of adolescence itself, to

the history of the subject as the studies carried out by Male (1962); Coleman (1972); Castellan and Riard (2005); Guillard (2007); Catheline (2007); Marcelli & Braconnier (2008); Cloutier & Drapeau (2008), Golse (2008), Sarris, Stavrou & Stavrou (2008); Zeza & Stavrou (2015a, 2015b) have shown.

The consequences of these difficulties

When they cannot be overcome, these difficulties can significantly increase drop out risks (Py, 2007) school disaffection (Walgrave, 1992), or early school leaving of adolescents who then lack any qualification. This can lead them to deviance, to higher risks of marginalisation, to the reinforcement or the development of a sense of abandonment, or to social marginalisation. The social measures implemented to address these shortcomings (training geared towards this population; support measures such as local missions...) all generate considerable (additional) social costs which are undoubtedly difficult to measure but which are nonetheless present. These difficulties can also go unobserved, without reducing possible professional choices as they insidiously lead the young people towards undesired directions.

Professionals of the academic world in the face of their students' difficulties

The assistance provided by academic professionals: principals, career guidance counsellors, principal education advisors and head teachers, is restricted as it is limited by the elements available to them - academic results, the student's behaviour, interviews with the families - which enable them to evaluate the competences, interests and cultural influences that these adolescents are subject to (e.g. representations of work, time). Nevertheless, they do not generally have the data placing the latter in a personalised context based on all the variables involved in their project. Access to this information would enable them to carry out a more in-depth analysis, thereby acquiring a more detailed understanding of the adolescents' situation. This would then result in decision-making which makes sense for the student as it would correspond to their interests and competencies, recognised by others and by himself, thereby reinforcing their self-esteem and their motivations.

A comprehensive approach to students to address their challenges

An analysis of this situation highlights the need for a more comprehensive approach to the adolescents as a whole in order to allow them to access a project (in terms of a profession) as close as possible to their desires and competencies, supported by knowledge about their abilities in domains such as psychomotor or cognitive, intellectual or psycho-emotional and psychosocial. This necessity is part of the broader view of clinicians and researchers who are the main authors of this research. Nevertheless, this approach must be accompanied by a conception of the project that is based on the same principle: comprehensiveness. The project can then be defined "as an act of commitment (of the subject), as a guiding thread, running from one end of life to the other, connecting and making the past, present and future interdependent; the cognitive, affective and social, and involving concrete and imaginary dimensions interactive as well" (Riard, 2006 ; Riard & Wallet, 2007).

Based on the potential dysfunctions identified as close as possible to the moment they emerge, the tool proposed seeks to reduce the first difficulties experienced by students (if necessary, by involving a professional such as an occupation therapist depending on the results obtained) enabling them to master their personal project.

For professionals, this battery also helps in decision-making through its complementarity with existing tools (interviews and/or tests carried out by career guidance counsellors). Due to its

implications that are explicitly psycho-pedagogical, it also appears as an element that supports the communication of personnel amongst themselves and with their partners in the larger education community (parents, support groups by counselling psychologist and regional authorities). Finally, an application component is expected in the form of a training program for the user within a perspective of professional didactics.

We need to specify that this tool was not designed to be used as a test: it simply seeks to gain a strategic understanding of what adolescents do.

A PRESENTATION OF THE REUSSITE TOOL

This tool was established based on some principles set out in specifications drawn up jointly by researchers and youth-serving professionals, established beforehand. These relate to its form, content, the circumstances in which it is given and its duration, and the procedures of correcting and analysing results.

Characteristics

In its finalised form, this tool covers all the dimensions that involve adolescents in their schooling and the construction of their project (psychomotor; intellectual and cognitive; affective and psychosocial level). It is synthetic as it works by selecting a representative sample of these dimensions. This representativeness is established based on literature and on experts' opinion.

It is a paper-and-pencil test; rapidly administered - 40 to 45- minutes; individual or collective; easily computed (in terms of counting) and does not require interpretation.

The construction process

Five successive waves - groups - of subjects (total number N=2395) were needed to carry out the necessary adjustments; choice of items of the tool and the formulation of guidelines were adapted to the various populations. The process is based on a triptych made up of dimensions, each corresponding to a "book": The sensory, motor and psychomotor dimension (Book 1); the genesis of intellectual processes and cognitive capacities dimension (Book 2); the psychosocial and the psycho-emotional dimensions of adolescence (Book 3). These books were then merged to form a single "operational" document. The subjects involved were students from the sixth to the tenth grade (from 11 to 15/16 years old). The different difficulty levels were evaluated by comparing the results of each subject to those of adolescents of their age.

The three books have to be accomplished within 40-45 minutes adding to a ten minutes confidence building, instructions and explanations as to how to complete the protocols.

More specifically in book three whereby three trial versions have indispensable prior to the final version (first version : 172 items; second version: 79 items; third version: 59 items and the last version: 57 items, taking into account six retained dimensions).

The three dimensions of the REUSSITE tool

The tool was constructed based on existing tests for the first two books (Book 1 -psychomotor dimension-; and Book 2: - cognitive and intellectual dimension- composed of 17 sub-tests among them in the operational version (and seven sub-tests in the confirmatory version). Book 3 is composed of 57 items (regrouped in six dimensions) involve the psychosocial and the psycho-emotional dimensions and form an entirely original part designed based on the analysis of the separation-individuation process (Mahler, 1982 and Blos, 1967).

The psychomotor dimension

In the final version of the test, the following dimensions were retained: equilibrium, rapidity, organisation of space and the spatio-temporal structure.

The major problem encountered when constructing this part of the test was the search for a match between a movement (which could not be carried out during administration as it was a paper-and-pencil test) and the response given by the subject - a self-evaluation -, indicating representation adequacy. A significant task seeking to establish the correspondence between the estimates given by the subjects based on their responses and the effective achievement of the movement was carried out.

Cognitive and intellectual dimension

This part of the test sought to evaluate the consistency and the unity of the potentialities as well as the intellectual efficiency of the students that led them to identify a project and personalised objectives to achieve. The aim was to design an intellectual and cognitive approach with regard to understanding the correlative strategic capacities of future emotional, relational and professional conditions of the adolescents under study.

All the tests in this dimension which comprised 12 sub-tests were inspired by existing psychological test calibration, identified in Zazzo and colleagues' works, and in particular, within two manuals dedicated to the psychological assessment of the child (Zazzo and Stambak, 1958; Zazzo et al., 1972). These are designed to detect the potentialities of verbal intelligence, expression, vocabulary, etc. on the one hand, and on the other, operational and performance intelligence with regard to concrete as well as abstract references relative to space and time. It also involved tests of codification systems, of oriented spatial assembly and of immediate memory exercises which relate more to practical intelligence. These were chosen based on the objectives set for the tests with regard to intellectual comprehension. The observations carried out sought to situate the uneven difficulties that subjects encounter, on one hand in specific domains of their intellectual and cognitive knowledge in comprehension - therefore to take an interest in their strategies and their work rhythms - and on the other hand to situate the domains of intellectual disinterest concerning specific sectors of knowledge, and to understand the root causes.

The psychosocial and psycho-emotional dimension

The theoretical reference point of the conceptual framework of these dimensions is the second phase of the separation/individuation process (Malher, 1982; Blos, 1967; Stavrou, 2002). It is based on three psychic phases which are lifelong and which accompany adolescence: these are the identifying phase, the ideal phase and the rebalancing of the "narcissistico-objectal" balance (Riard, 2006 ; Riard and Wallet, 2007 ; Stavrou, 2010, 2014).

Characteristics

Generally, the tests proposed are in most cases derived from the separation-individuation process mentioned above; they are thus based on objectal relationships. Without claiming to provide a comprehensive catalogue of existing tests, we have identified that in this domain, tests that have a therapeutic purpose or seek to identify the psychological dynamics of a subject (psychopathological and personality disorders and the associated behavioural trends) are among the main existing tests. Examples are the Butcher's MMPI-A, (Minnesota Multiphasic Personality Inventory -Adolescent) (Butcher et al., 1992); the Spielberger's STAI (The State-Trait Anxiety Inventory) (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983); the

Coopersmith's CSEI (Coopersmith Self-Esteem Inventories) (Coopersmith, 2002); or the Touma and Virole's TSEA (Test de socialisation pour enfants et adolescents) (Touma and Virole, 2004) which test the complexities of adolescents relationships.

Among them, particular mention must be made of SITA (Separation individuation test of adolescence). This test specifically targets the operationalization of the separation/individuation process, considering its very foundations initially developed by Levine, Green and Millon (1986), it was later taken up in an abridged French version by Saintonge and Lachance 1995).

Objectal relationships as points of reference

The new distance that adolescents must create with their objects and their entourage is taken as the point of reference when reorganising adolescents' relationships through counselling psychology: with regard to parent figures, peers, social objects, their bodies, the ideals that project them into the future. Literature review as well as the work carried out jointly with the experts led us to focus on what can be summarised by the following six questions: Dimensions who refer to the following six scales: 1- separation from the parents (and from the childhood world) and movement toward non parental adults figures; 2- the new relationships to build with peers and partners; 3- the reaction when faced with obstacles and social constraints; 4- place of the body; 5- the project itself; 6- depression. This resulted in a test comprising 57 items. Subjects were asked to respond after being given an example.

Each item proposed four possible responses. They were interpreted based on a subject's degree of commitment to the future. This was reflected for instance by the presence of a psychic movement attesting withdrawal that could be identified because it was based on an "adequate" distance with parent figures (Scale 1). In such a case, these adolescents "had to accept" to maintain relationships with their peers that were ultimately more intimate (Scale 2) and they had to be able to cope with obstacles and social limits without narcissistic omnipotence (Scale 3). They also had to be capable of projecting themselves into the future (Scale 4), and the body had to be the object of new relationships (Scale 5). Admittedly, they could have had depressive symptoms but should have been able to overcome them or to contemplate overcoming them (Scale 6).

As mention in section 2-2, we took in consideration the duration requirements, thus restricting the number of items per subscale.

The responses were interpreted by taking into account the general orientation of the individual's development in the specified direction, based on a study carried out jointly with the experts. We therefore sought to identify why the response given by the adolescents were likely to nurture or impede their project. The four possible responses proposed in the questionnaire each resulted in a score corresponding to the project's degree of favourability of achievement (at least potentially). This could also be understood as a response in the opposite direction from the moment the difficulty was encountered when constructing the project (or "weak" or "ordinary" difficulties). Under these circumstances, we can thus assume that the ongoing psychic activity makes it possible for adolescents to position themselves favourably in relation to their project, even though this project might not be clear. On the contrary, adolescents who responded inversely suggest that they are, or will be in difficulty in the short- or long-term.

Professional users

For ethical reasons, it can only be administered by trained personnel, (thus) requiring strict conditions, and excluding all discrimination. The results obtained can only function as a warning; they must be confirmed by a complementary version termed “confirmatory”, (already established) administered within the school, which must also ultimately be followed by directing towards a professional in the area concerned who will evaluate this difficulty using their own tools. Consequently, the battery-type REUSSITE tool is simply a possible first phase of a process.

VALIDATING THE REUSSITE TOOL

Once the tests validated (comprehension, instructions, adequacy) within a population of ordinary students, we sought the criteria enabling to identify students in difficulty (at least potentially). To achieve this, we sought the standard profiles of ordinary subjects, then the profiles of students identified by the academic institution as experiencing difficulty. These were the SEGPA students. The validity of the tests undertaken by ordinary students who are targeted by this tool was then sought by comparing their results to those of the SEGPA students.

Two major phases

Details on scales used and statistical analysis.

Books one and two scale : skill level, and book three : a likert type scale allows to grasp the degree of agreement. The Principal Component Factor Analysis was used to describe the data from an individual and numerical data spreadsheet and gave an idea of the individual items' structure and any similarities in behaviour between subjects' group, while, the correlation is in turn designed to determine the degree of relationship between two numerical variables X and Y.

Scoring

Scoring Book 1 and 2

For this part of the test, the analytical framework distinguished among five qualitative levels derived from the deviation of the response with regard to the mean of the responses of the subjects belonging to the same class, ranging from: very good – rated 5-, for perfect or almost perfect success during the sub-test; good – rated 4- when 2/3 of the responses were accurate; average - rated 3- when the responses lay on both sides of the median score; poor - rated 2- when the accurate responses represented approximately a third of the responses, and finally very poor - rated 1- for a result that was largely inferior to a third of possible accurate responses or when no response was accurate. A note was then compiled for each book.

Scoring Book 3

Here, the analytical framework distinguished four response levels depending on the subjects' level of agreement; this did not depend directly on subjects' level of agreement with the proposal formulated, but rather on whether the response (from “strongly disagree” to “strongly agree”) was in line with future commitment or suggested that the subjects would commit themselves. To this end, a specific scoring grid was constructed and validated by the experts and applied using a slide. Thus it was decided that a score of 3 or 4 implied that a response pointed in the same direction as the construction of one's project and that a score of 1 or 2 reflected responses that did not point to this direction. An overall score which is the total of the scores of the 57 items was then calculated. The higher the score, the less the subjects

experienced difficulty in their project with regard to the psychosocial and psycho-emotional dimension.

An overall score and a score corresponding to each dimension – or sub-scale – resulted; this made it possible to position the subject's response.

Validating the three books through comparison with S.E.G.P.A. students across all classes

Students from ordinary classes and those from SEGPA classes were compared sub-test by sub-test and then book by book. From all the statistical comparisons carried out, it appears that regardless of the test, the differences are always favourable to students from ordinary classes. In particular, they relate to Book 2 (cognitive and intellectual dimension) then to the psychomotor dimension (Book 1) and finally to the psychosocial and psycho-emotional dimensions (Book 3).

Further development of the results of ordinary students

Once it was established that significant differences exist between students depending on the type of class enrolled in (ordinary students and students from SEGPA classes), thereby confirming the validity of the test, we sought differences depending on variables selected from a population of "ordinary" students targeted by the REUSSITE tool in order to refine the modalities. The following points clearly emerged:

- Regardless of the book considered, no significant difference exists between grade 9 students and those in grade 8, and among the same subjects within the same class, between girls and boys, or between those from rural or urban backgrounds.
- Regardless of the book considered, it was also confirmed that differences between students in grade 6 and 7 were highly insignificant. They were nonexistent within the same class between girls and boys, or between those from rural or urban backgrounds.

INTERPRETATION

Strategy

The comparative observations conducted during the tests first concerned the strategic point of view, undoubtedly under the influence of academic requirements, as well as those arising from the social structures analysed by Merton (1998). Among many subjects and in particular those experiencing failure or difficulty in the exercises given, there was confusion between rapidity and the level of performance. Execution speed was thus disconnected from the necessary personal mastery which must condition the reactivity of subjects in order to make them effective in resolving intellectual and cognitive problems of everyday life. As a result, the apprehension, selection and structuring of the perceptive organisation of the phenomena were considered in the Book 2; In reality, from a strategic perspective, or in the absence of strategic reasoning, under-performing students or those experiencing difficulties simply attempted to memorise knowledge that was non-integrated, un-internalised, non-transferable, and that could not be generalised according to the modalities defined by Piaget (1974) but analysed by Gardner (1983) in the theory of multiple intelligence.

Sudden improvement and maturation due to age

In the various intelligence forms encountered, intuitive responses become rarer, a strategic point of view described by children and adolescents when they have good basics and concrete benchmarks related to space and time organisation.

In particular, the observations also made it possible to detect among all the students considered, a sharp improvement in the overall results between subjects aged at least 12 up to 14 years old. We thus posited that among many adolescents, this improvement could be due to a normal access to conceptual thinking, premise of the advance towards abstract and hypothetical-deductive reasoning at the formal operational stage; this was confirmed through individual observations. The item by item analysis of book 2 among subjects aged between 11 and 14/15 years old enabled us to confirm a personal transformation of the basic points of reference for many subjects with regard to spatial and temporal data, as well as data concerning how proportionality, dexter and sinister movements, progressive and regressive, alternative and rotating, and accelerated and decelerated relationships are grasped. The essential prerequisite for such success that was observed in individuals through a retest was that for the vast majority of cases, the basic Euclidian benchmarks had been acquired which therefore made it possible for the “sudden learning phenomenon” by “insight” observed by Köhler, (1927). Subjects conscious of the impact of forms learn thereby modifying their work strategy. Individual observation during the copying of a complex figure made it possible to distinguish: between good forms (gestalt) and syncretic approach.

Spatial and temporal benchmarks and intellectual efficiency

Spatial and temporal benchmarks as well as tempo and rhythm benchmarks substantially implicated in the failures observed are also sensitive upstream with regard to understanding the movement (Book 1) and are echoed in turn in the exercises involving coding, counting cubes and especially, in numerical series requiring reproductions in an oriented manner as well as in the geometric reproductions of spatial symmetry. From a Piagetian perspective, two versions of exercises were determined depending on the observations carried out on both sides of the crucial ages observed (at least 12 to 14). They sought to discriminate between the subjects who on one hand are confronted with difficulties in basic references, lateralisation, orientation, conservation of length and on the other hand, with difficulties involving complex concrete intelligence.

This identification presides and is necessary in conceptual representation before the development of abstract reasoning. The overall analysis of raw data as well as the strategies employed by subjects made it possible to detect the most common difficulties encountered, difficulties linked to spatial and temporal references with regard to self but above all, projected in an operational manner in the exercises proposed. This analysis also made it possible to reveal, through the individual rating of successes and failures, specific difficulties which explain the imperfections of understanding; most often, systematic or random personal strategic understanding biases. At all levels from grade 6 to grade 10, three domains were globally poor: the domain of numerical series, that of the type of memory but also and especially, that of geometric references. The overall scores obtained by SEGPA students in the 6th and 7th grade were significantly different and inferior to those in the 6th and 7th grade of the ordinary section. Similar results were found among students in the 9th grade. On the contrary, the gap between their results significantly narrowed at grade 8, an age which corresponds to the initial observation of a “sudden learning phenomenon” (Köhler, 1927, Stavrou and Makratzi, 2004) with regard to spatial references. However, it is likely verified through a clinical study, that this learning is not sufficiently substantiated by concrete exercises then conceptualised to make it operational. Nevertheless, the difference becomes less significant between grade 9 SEGPA students and those in ordinary classes.

Reaction and oscillatory process of adolescence, sense of lack and/or abandonment

These results cannot be dissociated from the adolescence process itself. In the 6th and 7th grade, adolescence begins, admittedly less powerful than it will be in the following levels, but it undoubtedly affects future student orientation; the academic institution already asking students to make their first choices. What are the impacts of these bodily and parental constraints, and on a larger scale, social constraints and notably those of the academic institution? How do cognitive, intellectual and motor capacities influence as well the construction of the project (in agreement with the holistic conception of the individual and that of the project, setting the principles of totality and interdependence)? It is likely that as instances from the imaginary work “as a block”, the work geared to peers can only function as essentially narcissistic which gives the missing security or at least reduces the anxiety generated by maintaining him in a relationship with an orientation such as “infantile dependence”.

The oscillatory type of movement which forms the basis of the adolescents’ construction project at the imaginary level (based on identifiable, ideal and “narcissistico-objectal” instances, (Riard, 2006), translated differently by Chabert (1986) (the alternating of *progrédients* and *régrédients*), is probably a small amplitude movement, occasionally rather close to a certain risk of immobilism within a psychic zone of minor differentiation, resulting in increased anxiety due to incongruity with the adolescents’ situation. This can only reinforce the discovery of irreversibility and the unidirectionality of how time elapses (Montangero, 1983), where the adolescents have little influence. This is undoubtedly why adolescents have responses that can sometimes be violent as they react to a situation in which they no longer have control.

CONCLUSION

From a psychological point of view, the difficulties and failures encountered implicitly relate to individuation-separation problems, and also frequently relate to relational issues in terms of relational omnipotence and/or adolescents’ sense of abandonment within society, which influences the capacity to be alone as defined by Winnicott (1958). The adult world and the existing education do not sufficiently support the development of children in their sensory and motor evolution, in “knowing and communicating” as described by Bruner (1991). Man intervenes less and less in the presentation of knowledge objects; this refers to learning that is partial or biased, virtual, fantasised often using artificial “demonstration” techniques of the world, rather than the orientation of perspectives, observation, imitation. The children often learn alone but do not really learn to be alone after imitating and sharing while accompanied in their elementary actions and operations on the world; actions that must enable him to access the reflection in the mirror of self and the other as described by Mead (1963). Owing to the influence of the social requirements of rapidity, urgency and efficiency, he is likely to react less through trial-and-error or progressive adjustments depending on their potentialities and their personal physical characteristics; he thus proceeds intuitively or through trial-and-error without taking the time to reflect which is quite important as Feuerstein and Spire (2006) have shown. Frequently, due to insufficient detachment with regard to prescribed tasks, these tasks are represented in a partial or erroneous manner; all logical demonstration becomes impossible and the subjects resort to all-powerful magical thinking, or to abandonment, flight, a sense of powerlessness, or even to depression.

BIBLIOGRAPHY

Bachelard, G. (2005). *La philosophie du non : essai d’une philosophie du nouvel esprit scientifique*. Paris : Presses Universitaires de France.

- Blos, P. (1967). Les adolescents : essai de psychanalyse. Paris : Stock.
- Boutinet, J-P. (1991). Anthropologie du projet. Paris : Presses Universitaires de France.
- Bruner, J.S. (1991). Le développement de l'enfant. Savoir-faire, savoir dire. Paris : Presses Universitaires de France.
- Bullinger, A. (1990). La formation d'actions motrices chez l'enfant, l'aspect sensori-moteur. In R. Zazzo & J. Netchine (dir.), Développement et fonctionnement cognitif de l'enfant. Des modèles généraux aux modèles locaux. Paris : Presses Universitaires de France.
- Butcher, J.N., Williams, C.L., Graham, J.R., Archer, R.P., Tellegen, A., Ben-Porath, Y.S. PhD, Kaemmer, B. (1992). Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A). University of Minnesota: Minnesota University Press
- Castellan, Y. & Riard, E-H. (2005). Les 12-17 ans : le projet de vie et ses voies. Carrefours de l'Education, 19, 139-164.
- Catheline, N. (2007). Psychopathologie de la scolarité. Paris : Masson.
- Chabert, C. (1986). Narcissisme au Rorschach. Bulletin de la Société Française du Rorschach et des Méthodes Projectives, 33, 15-40.
- Cloutier, R., & Drapeau, S. (2008). Psychologie de l'adolescent. Paris : Eyrolles.
- Coleman, J.S. (1972). How do the young become adults? Rev. of Educational Research, 42, 4, 431-439.
- Coopersmith, S. (2002). Coopersmith Self Esteem Inventory. U.S.A.: Mind Garden, Inc
- Crites, J.O. (1962). Parental identification in relation to vocational interest development. J. of Educational psychology, 53, 6, 262-270.
- Dolle, J.M. & Bellano D. (1989). Ces enfants qui n'apprennent pas. Dijon Quetigny : Païdos Centurion.
- Drigas, A., Kouremenos, D., Vrettaros, J., Karvounis, M., & Stavrou, P.-D. (2009). The diagnosis of the educational needs of the hearing impaired. Int. J. Social and Humanistic Computing, 1(2), 138-148.
- Feuerstein, R., & Spire A. (2006). La pédagogie à visage humain. Lourmont : Le Bord de l'eau.
- Gardner, H. (1983). Frames of Mind: the Theory of Multiple Intelligence. New York : Basic Books.
- Golse, B. (2008). Le développement affectif et intellectuel de l'enfant. Paris : Masson.
- Guillard, S. (2007). Adaptation scolaire. Un enjeu pour les psychologues. Paris : Masson.
- Köhler, W. (1927). L'intelligence des singes supérieurs. Paris : Alcan.
- Levine, J.B., Green, C.J., & Millon, T. (1986). The Separation-Individuation Test of Adolescence. Journal of Personality Assessment, 50, 123-137.
- Mahler, M. (1982). Psychose infantile. Paris : Petite Bibliothèque Payot.
- Male, P. (1962). La crise d'adolescence. Paris : Payot.
- Marcelli, D. & Braconnier, A. (2008). Psychopathologie de l'adolescent. Paris : Masson.
- Mead, G. H. (1963). L'esprit, le soi et la société. Paris : Presses Universitaires de France.
- Merleau-Ponty, M. (1964). Méthode en psychologie de l'enfant. Bulletin de psychologie, 236 XVIII, 3-6, 110-140.
- Merton, R.K. (1998). Eléments de théorie et de méthode sociologique. Paris : A. Colin.
- Montangero, J. (1983), L'étude de la psychogenèse du temps : Considérations générales et confrontations de points de vues. Cahiers de Psychologie Cognitive, 3, 363-370.
- Piaget, J. (1974). Réussir et comprendre. Paris. Presses Universitaires de France.
- Py, B. (2007). La statistique sans formule mathématique. Comprendre la logique et maîtriser les outils. Paris : Pearson.
- Riard, E-H., & Wallet, J-W. (2007). Adolescents d'ici et d'ailleurs en question (Note de synthèse sur l'adolescent et la vie scolaire). Carrefours de l'Education 25, 89-114.
- Riard, E-H., (2006), Projet adolescent : difficultés et réalités psychiques, Revue internationale de criminologie et de police technique et scientifique, 3, 6, 277-287.

Saintonge, S., & Lachance, L. (1995). Validation d'une adaptation canadienne-française du test de séparation-individuation à l'adolescence [Validation of a French-Canadian adaptation of the Separation-Individuation Test of Adolescence]. *Revue Canadienne de Psychologie*, 16, 199-221.

Sarris, D., Stavrou, P.-D., & Stavrou, L. (2008). L'appropriation de la langue écrite chez l'enfant de 5 - 8 ans : le rôle de l'environnement didactique et scolaire / The appropriation of the written language in the child of 5 - 8 years old : the role of the didactic and school environment. In A.O.T. Ahami, *Pathologies humaines et déficits du développement : Approche pluridisciplinaire* (pp. 20-32). Laboratoire des Neurosciences, Université Ibn Tofail, Kenitra, Maroc.

Spielberger, C. D. (1989). *State-Trait Anxiety Inventory: Bibliography* (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.

Stavrou, L. (2002). Maturité affective et sociale de l'enfant dyslexique /dysorthographique d'un point de vue pédagogique et clinique. *Carrefours de l'éducation*, 13, 111-126.

Stavrou, L., & Makratzi, A. (2004). Improving Preschool and Elementary School Children's Perceptions of Space and Time through Computer and Microsoft Power-Point. *WSEAS Transactions on Information Science and Applications*, 5, 1, 1417-1421.

Stavrou, P.-D. (2010). Construction of a polymethodologic research model for assessment and intervention in schools: The case of school violence and incivility / Construction d'un modèle de recherche pluriméthodologique en vue d'évaluation et d'intervention à l'école : le cas d'incivilités et violences scolaires. Doctorate in Clinical Psychology. Université Paris Descartes – Sorbonne, Laboratoire Psychologie Clinique, Psychopathologie, Psychanalyse – PCPP, France.

Stavrou, P.-D. (2014). Mediation and guidance of containers and contents of children's thoughts : prevention and risk treatment of disharmony and early psychotic disorders / médiation et guidance des contenants et contenus des pensées enfantines : prévention et soin des risques de dysharmonies et de troubles psychotiques précoces. European Doctorate in Clinical Psychopathology. Université de Picardie Jules Verne, France and University of Lund, Sweden.

Touma, V.M. & Virole, B. (2004). TSEA, Test de socialisation pour enfants et adolescents: manuel. France: ECPA

Walgrave, L. (1992). *Délinquance systématisée des jeunes et vulnérabilité sociétale : essai de construction d'une théorie intégrative*. Genève : Méridiens Klinckieck.

Winnicott, D.W. (1958). *La capacité d'être seul*. Paris : Payot.

Zazzo, R., & Stambak, G. (1958). *L'examen psychologique de l'enfant*. Paris : Presses Universitaires de France t.1, 241-259.

Zazzo, R., & al. (1972). *Psychologie différentielle de l'adolescent*. Paris : Presses Universitaires de France, 1ère éd.

Zeza, M., & Stavrou, P.-D. (2015a). Intervention Program in Deaf-blind Students: An Educational Plan for Body Schema Awareness. In G. Kouroupetroglou (Ed.), *Enabling Access for Persons with Visual Impairment*, Proceedings of ICEAPVI, 12-14 February 2015 (pp. 228-232). Athens, Greece.

Zeza, M., & Stavrou, P.-D. (2015b). Program of Educational Intervention for Deaf-Blind Students. In Y. Tan, Y. Shi, F. Buarque, A. Gelbukh, S. Das., & A. Engelbrecht (Eds.), *Advances in Swarm and Computational Intelligence*, Proceedings (Part III) of 6th International Conference, ICSI, 25-28 June 2015 (pp. 472-478). Beijing, China.

COMPLEMENTARY BIBLIOGRAPHY

Apter, M. (1997). Reversal Theory : What is it ? *The Psychologist*, 10 (5), 217-220.

Bartram, P. (2007). *Understanding your young child with a disability*. London : Jessica Kingsley Publishers.

Beauvallet M. (2009). *Les stratégies absurdes*. Paris: Seuil.

Bergier, B., & Francequin, G. (2005). *La revanche scolaire : des élèves multiredoublants, relégués, devenus surdiplômés*. Toulouse: ERES.

Berk, L. (2002). *Child development*. Upper Saddle River. New Jersey, Allyn and Bacon.

Birraux, A. (1994). *L'adolescent face à son corps*. Paris : Bayard.

Bonvalot, G. (1992). *Le projet, un défi nécessaire face à une société sans projet*. Paris : L'Harmattan, 397- 403.

- Gibello, B. (1994). *L'enfant à l'intelligence troublée*. Paris : Païdos.
- Gibello, B. (1995). *La pensée décontenancée*. Paris : Bayard.
- Gonzalez-Mena, J. (2004). *Diversity in early care and education : honoring differences*. New York : Mac Graw Hill.
- Harris, Y. R., & Graham, J. A. (2007). *Development and challenge*. New York : Springer Publishing Company.
- Mooney, C. G. (2000). *Theories of childhood: an introduction to Dewey, Montessori, Erikson, Piaget and Vigotsky*. New York : Redleaf Press.
- Lesourd, S. (2005). *La construction adolescente*. Toulouse : ERES.
- Piaget, J. (1956). *Le langage et la pensée chez l'enfant*. Neuchâtel : Delachaux et Niestlé.
- Piaget, J. (1968). *La naissance de l'intelligence chez l'enfant*. Neuchâtel : Delachaux et Niestlé.
- Picq, L., & Vayer, P. (1968). *Education psychomotrice et arriération mentale : application aux différents types d'inadaptation*. Paris : Doin.
- Rey, A., & Osterrieth, P.A. (1959). *Manuel du test de copie d'une figure complexe*. Paris : ECPA.
- Simondon, G. (1969). *Du mode d'existence des objets techniques*. Paris : Aubier Montaigne.
- Wallon, H. (1970). *De l'acte à la pensée*. Paris : Flammarion.
- Wallon, H. (1924). *Stades et troubles du développement psycho-moteur et mental chez l'enfant*. Paris : Alcan.