

## A Concise Historical Survey of Decision-Making Theories in Educational Context

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**ABSTRACT:** This paper presents a concise survey of some general decision-making theories and especially some methods of making educational decisions by adolescents. The educational decisions of adolescents by the end of secondary education are essentially the same as their first vocational choices, since they are heading then for vocational education, either in post-secondary or tertiary level. As the adolescents' educational decisions are products of complex and parallel processes, the conditions under which decision-making becomes necessary are firstly presented and then the main features of relevant theories and methods are analysed.

**Keywords-** decision-making, educational decisions, vocational decisions, adolescents

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### I. INTRODUCTION

School is one of the most important institutions of a state, as it has a decisive contribution to shaping the character of the people and consequently to the subsequent evolution of their lives. The school context is very important for children, because after the family and the narrow social context it is a rich source of stimuli and experiences for their malleable personality [1]. The contemporary educational systems attempt the individualized vocational guidance of students. Nowadays, as the link between the educational process and productivity is an indispensable prerequisite for economic development, social progress and cultural evolution, the modern educational models have formed specific procedures for investigating and evaluating adolescents' educational decisions [2].

Decision-making is one of the four internationally established career guidance objectives. The other three are self-knowledge, information and the smooth and harmonious transition/integration of a person into society. The decision-making process concerns the students' evolutionary process and is related to their ability to make decisions about their career but also their own personal life in a mature and satisfactory way for themselves [3]. The vocational and educational guidance are closely linked, as the implementation of professional decisions presupposes the existence of some educational experiences and activities. Educational decisions have professional extensions and this is the reason for having the term "educational-vocational" decisions [4].

Adolescence and then first youth are perhaps the most critical time for people to be oriented towards an educational and then professional course. In particular, adolescence in career development is a very important parameter for career theorists (Ginzberg, Gottfredson, Super, Vondracek, Lerner & Schulenberg, etc.). For persons, both the choice of study and the professional activity are important and difficult procedures, as they have long-term consequences [1]. Indeed, in modern times, characterized by rapid and unpredictable changes in science and technology and by a global realignment of the economic system and the labor market, people are constantly being asked to adjust their educational and vocational goals by evaluating and reconsidering past educational and vocational decisions [2]. Thus, the career path requires the adoption of specific designing and redesigning methods. The selection process starts from adolescence and first youth and stops with retirement. Career counseling is aimed at those who need to make a decision about their careers. It provides them with the necessary skills to carefully and realistically examine the data and then to make an effective decision [5].

More recently, the career guidance sector has turned its attention to interactions and human communication with its environment (mainly economic), while at the European level it contributes to the four main objectives of the Common European Policy [6], which is:

- Lifelong learning;
- Social inclusion;

## A Concise Historical Survey of Decision-Making Theories in Educational Context

- Efficiency in labor market absorption;
- The economic development of the European Union (EU).

Therefore, at the age of 15-16, pupils have to take educational decisions that are particularly important for their professional and personal development.

The formation of educational aspirations and goals during adolescence is subjected to the effects of many factors. The family environment, school, peers and classmates, the media, the internet, the social media and the stereotypes displayed through them, as well as the individual characteristics (personality, self-esteem, interests, motives, values) of adolescents, create a complex grid that has an important role both in making educational decisions and a long-term impact on persons' lives. Consequently, it will be attempted to briefly investigate and comment upon the factors that affect the vocational decisions of adolescents, as well as their importance in the development of the lives of young people.

### II. THE CONTEXT OF VOCATIONAL DECISIONS IN ADOLESCENCE

The 21st century is characterized by intense and complex processes in the field of labor. At a rapid pace, humanity moves away from the classic career model, where people start working in a profession and continue to do so for a long time or until retirement. Now the world is heading for new forms of career, often referred to as "unpredictable", "multifaceted", "unstable", "cyclical" and "transitional", while the global systemic crisis is underway and the sharpening of social contradictions, things are even more complicated in terms of vocational decision-making. It is certain that the younger generation, being the future workforce, will face situations (e.g., unemployment or occupational mobility) that have been of minor importance for at least the Western countries, following a Keynesian model of economic development in the second half of the last century. Within such an environment, adolescents nowadays are called upon to make vocational decisions [7].

During adolescence as a rule, people still attend a school, since schooling is compulsory (at least during 13-15 years of age). In the second range of age (16-18), almost the majority of people continue schooling, while preparing to enter the labor market. This period is the milestone between the pupils' school life and their upcoming professional and social life. At this time, the data and situations of school life will play an important role in the vocational decision and direction of pupils. In this period, the activation of pupils is caused by a variety of factors and also takes a variety of forms, such as:

- involvement of pupils in activities of the classroom;
- encouraging of the pupils to seek autonomy and take responsibility for their behavior towards learning and the school community, by claiming a role in the peer society;
- linking learning to everyday life and practice.

These are some elements and processes of basic activation or instigation of the pupils in order to achieve meaningful learning. They are asked to apply whatever they do, from school to real-world situations [8].

The complex issues of vocational choices and decisions have been studied by remarkable researchers (Super, Tiedeman, O'Hara, etc.) over the past decades. The issue of maturity, in particular, includes many aspects, defined as the state of the sophisticated and stabilized physical and mental aspect of persons and their ability to meet their needs and obligations [9]. As far as occupational maturity is concerned, it must be mainly related to the social aspect of maturity. Occupational maturity refers to the degree of skills acquisition by persons. These skills help them to process the information in a way that makes the right decisions, while they are also related to the specific knowledge and information required and some behaviors similar to the stage of professional development in which they are located. The basic skills of planning a career are [10]:

- the ability of persons to make decisions;
- the ability of persons to create a personal professional image;
- the ability of persons to collect and evaluate occupational information;
- the ability of persons to show their professional qualifications;
- vocational adaptation skills.

The continuous and gradual maturing of vocational thinking, during adolescence, was highlighted by several researchers. Pupils before adolescence are enthusiastic about occupations that seem exciting and dynamic (e.g., astronaut), but maturing as teenagers and then in their early youth, they try to combine their interests with their abilities and the reality in the labor market [11, 12].

In the second period of adolescence (after 15-16 years of age), people start more intensely and more structurally to explore their career prospects. This fact means that they define how to realize the necessity of choosing a profession. Due to the lack of direct contact with occupations (much less in vocational education pupils), teenagers aged 17-18 usually have a misleading picture of the actual working conditions of the various professions, while at the age of 18-21 they crystallize their vocational

## A Concise Historical Survey of Decision-Making Theories in Educational Context

choices. Ultimately, people as adults choose a profession, which represents a combination of what they want to do and what they are able to do [13].

To summarize, it is important to note that making vocational decisions during adolescence, namely during a period dominated by uncertainty and swinging in people's lives, without the criteria that will help them to make a rigorous decision having been defined yet, leads to several cases of irresolution [14]. At this point, the inclusion of general or context-sensitive theories of decision-making, as part of the secondary education curriculum, would be very useful for helping adolescents to discover educational and vocational paths.

### III. GENERAL THEORIES OF DECISION-MAKING

This chapter deals with the presentation and critical analysis of two historically important theories, which are part of the broader category of general theories of decision-making: the Theory of Logical Decisions by Janis & Mann [15] and the Theories of Mixed-Scanning and Ethics by Etzioni [16, 17, 18]. They are both used as the theoretical bases for the widest variety of decision-making methods.

#### A. Theory of Logical Decisions

According to the Theory of Logical Decisions (ToLD), when persons find themselves in the need to make a decision, then a situation of internal conflict is formed. The result of this process causes stress and uncertainty to people who feel that they are in a state of threat. Regarding stress, the term refers to the inconvenient or unpleasant situation that is created when persons find themselves in an environment that they consider threatening ("stressful event"). ToLD is a theory of "conflict" and "stress", concerning the matters of decision-making. As the involvement of persons increases in the decision, the internal conflict that they experience is equally intensified, with the result that they feel even more threatened. Besides the central position of the concept of stress, five more concepts play an equally important role, presented below [19]:

- (i) There is a direct correlation between the degree of stress that is experienced in situations requiring decision-making and the goals of the decision. Persons are afraid of failing to meet the goals, while the more goals and needs associated with them are, the greater the stress of the recipients.
- (ii) When persons are faced with new threats or new opportunities that lead them to examine these new situations, then the size of decision stress is affected by the size of their attachment to the present state.
- (iii) In the case where the decision conflict is serious, because of the great risks of alternatives, persons are guided to the "defensive avoidance" of stimuli. This happens because people experience the loss of hope for a better solution.
- (iv) In the event that persons have to make a decision about a serious conflict, while the threats are visible and the time to avoid or escape the losses is insufficient, the stress remains high, causing hyper vigilance.
- (v) A vigilant effort is the result of a moderate degree of stress in a threatening stimulus. With a moderate degree of stress, persons become capable of making decisions, since they can carefully study the situation, look for the right alternatives and choose one of them.

ToLD presents five behavioral styles, namely there are five models for dealing with conflicts, crises, etc., concerning decisions [19]:

- (a) The first style of behavior is called "unconflicted inertia". According to it, persons set a line of thought that they continue to follow, ignoring the possibility of risk. They do so because they want to avoid creating conflicts.
- (b) The second style is called "unconflicted change". Persons choose new courses of action, without resorting to special evaluations at first. A basic prerequisite for this attitude is the lack of conflict from their new courses of action.
- (c) The third style is called "defensive avoidance". According to it, persons avoid making decisions in two ways: by delaying decision-making and by disclaiming responsibilities. This style is not only the most common form of unwanted behavior but also the most difficult to deal with. It is difficult for people to reject it even through counseling procedures.
- (d) The fourth style is called "hyper vigilance". People are anxious to seek a decision, thus choosing the very first alternative that is offered to them.
- (e) The fifth style is called "vigilance". According to it, persons are searching for information orderly and calmly. Then they weigh the collected data and make their decisions without irrational influences.

Of the five presented behavioral styles, it is evident that only the latter has a positive impact on decision-making. The rest of them either lead to avoidance of decision or to hasty and ultimately false decisions. The vigilance behavior enables persons to really get into a state of decision-making, by collecting and processing information about alternatives. Janis & Mann call this process "vigilant information processing" [19].

## A Concise Historical Survey of Decision-Making Theories in Educational Context

In addition to the central position of stress, the five key concepts of decision-making (i-v) and the five behavioral styles (a-e), ToLD also makes proposals for adopting a specific process of decision-making that includes seven basic stages [19]:

1. Concentration and recording of alternative modes of action.
2. Determination of the goals and values, corresponding to each alternative.
3. A cost-benefit analysis for each alternative.
4. Gathering of additional information on each alternative and its possible consequences.
5. Taking into account new information or even providing advice from experts.
6. Reassessment of all alternatives and consequently of their possible consequences.
7. Selection of one or more alternatives, while making action plans for their realization.

As it can be seen from the above analysis, ToLD is a coherent theoretical model of decision-making with five key concepts (i-v), five behavioral styles (a-e) and a decision-making process of seven basic stages (1-7), where the concept of stress is central.

### **B. Theories of Mixed-Scanning and Ethics**

The Theories of Mixed-Scanning and Ethics (ToMSE) had been initially presented by Etzioni as the mixed-scanning theory [16] and then augmented with the theory about ethics [17, 18]. Before ToMSE is presented, it is necessary to mention the need for having created this model of decision-making, which stemmed from the inability of previous theories to offer solutions across the entire range of emergencies, but also for all possible decision-making needs, either individually or collectively [19]. Within this framework, ToMSE attempt to combine the advantages of the previous theories, while minimizing their weak elements. Having set the objectives above, ToMSE proceed to distinguish decision situations in the following main categories:

- important and not important;
- urgent and non-urgent;
- crucial and non-crucial;
- routine and judgment.

On the basis of the type of problems and the importance of the impact of decisions, ToMSE proceed to a fundamental separation of decisions, where the former can be called "strategic decisions", while the latter as "regular decisions":

- Decisions of fundamental or large scale. These decisions require procedures of a similar scale, as they set the main pillars of strategy and the main policy. Their realization is achieved by combining elements of rational and gradual approach.
- Decisions of minor or smaller scale. These decisions are either made within the framework of the creation of the previous decisions, implementing them, or made before them, aiming at preparing the appropriate ground for them. These decisions are common to be made by using a progressive approach methodology.

The mixed-scanning ensures a better decision making, because it reduces the rigidity of a logical approach and at the same time makes greater use of the possibilities of a gradual approach. The ethical theory enriches and extends the original model, being necessary because of the noticed degradation of ethics and the role of human behavior (in and out of decision-making), in both the management theory and the decision theory. Etzioni attempted to deepen the research on these issues, which cannot be approached through quantitative benefit scales, regulatory or logical quantitative approaches.

Etzioni, being a key theorist of ethics in decision-making, argues that its value cannot be ignored, since people are not machines that simply perform actions unaffected or isolated from their social environment. On the contrary, people as social beings belong to groups, whose members have a common way of thinking and share common values. Thus in making decisions, people are unable to ignore this joint integration and to act unaffected. ToMSE distinguish three sources of influence of a person:

- *Utilitarian sources.* These are related to the expected and intended benefit of the person and refer to regulatory theories. They are the subject of study of economic science and of regulatory-utilitarian decision-making models.
- *Social sources.* Are those related to each person's social reference group and the cultural values of the wider society in which the person is integrated. They have as a frame of reference society or group and they are the subject of study of social psychology, sociology and anthropology. Overcoming social norms leads to the risk of criticism, rejection or even expulsion from the community or group. Thus, the above consequences result in the voluntary compliance of the person.
- *Deontological sources.* These are related to a person's moral aspect, including religious and ethical values. In general, the deontological sources originate from society or in some cases from the group, however they are investigated by Ethics, as they are elements of the externalized individual moral being of people, whose violation leads to situations of conscious guilt.

## A Concise Historical Survey of Decision-Making Theories in Educational Context

Attempting to investigate how ethics influence a person, Etzioni raises two main questions, each with three subquestions [19] because according to the above, Etzioni argues that in order to understand human behavior in decision-making, it is necessary to take into account all three sources of influence and not just some of them:

- What exactly does the decision maker do? (a) From an utilitarian point of view, “seeks to maximize satisfaction or benefit?” (b) From a social point of view, “is trying to comply with social imperatives in order to avoid social punishment?” (c) From an ethical point of view, “does he/she ensures the above but in the light of and in the context of his/her ethical positions?”
- How does a person choose the means to achieve whatever he/she is trying to achieve? (a) From an utilitarian point of view, “through an analysis of costs and expected benefits, is he/she trying to choose the solution that will ensure the most benefit?” (b) From a social point of view, “through the analysis of the desired behavior chooses the one that is in accordance with the social imperatives and expectations?” (c) From an ethical point of view, “the person makes decisions but within the group or society, guided though by his/her ethical principles and code of conduct, which also have their starting point in the groups and society”.

By closing the herein reference to ToMSE, it is worth mentioning that they approach the issue of human nature and behavior, in a way attempting to integrate them in the decision-making process.

### IV. THEORIES OF EDUCATIONAL-VOCATIONAL DECISIONS OF ADOLESCENTS

Conventionally, the theories of educational and vocational decisions of adolescents are classified in two main categories. The first concerns the theories of professional development and the second concerns the theories of vocational decision-making. However, it should be noted that this separation is not absolute, because professional development is directly dependent on the decisions of the acting subjects. In other words, the professional development of persons along with the concepts of “life plan” and “career” are not independent of each other but should be perceived as interdependent situations [19]. Therefore, the following theories are historically presented as theories of educational-vocational decision-making of adolescents.

#### A. *The Theory of Hilton*

Hilton [20], referring to cognitive psychology and cognitive information processing in particular, attempts to combine it with the theoretical findings of Festinger [21] on “cognitive dissonance”. Cognitive dissonance exists in two cases:

- when persons simultaneously embrace incompatible attitudes;
- when there is a difference between their beliefs and their actual behavior.

Whenever persons have to make a career choice, they are in a state of imbalance and seek to restore their mental balance. Persons in situations of cognitive dissonance are responding in a variety of ways, due to an “environmental stimulus”. The main four are:

- The temporary compromise, which is possible to postpone the decision.
- The rejection of the stimulus, due to a serious inconsistency.
- The prevalence of the stimulus, where persons are led to make a favorable decision.
- The modification of elements that are related to the stimulus, but also of the elements related to the reaction, in order to bring persons into a state of balance.

The environmental stimulus is the source of the decision-making process, as it brings persons into a state of imbalance. At this time, the mechanism of restoring mental balance is in operation. At first, persons check to detect a cognitive dissonance. In the event that no cognitive dissonance is detected, decision-making is easy, but in case of detection, the process of activating the system of information stimulus review and updating follows. In this way, feedback is initially obtained at the input, followed by the creation of a pilot decision plan. The result of the above processes is the final action. Through this, persons achieve the restoration of their balance.

#### B. *The Theory of Gellat*

Gellat [22] argues in his theory that the necessary conditions for making a decision are the existence of a person, who has to make a decision, and the existence of at least two alternatives. In addition, Gellat believes that the information available to the person play an important role. According to this theory, the decision-making process consists of the following stages:

- Collecting information, assessing the possible outcomes of each option and then assessing the probability of their realization;
- estimating their importance, where the value system of persons plays an important role;
- choosing a decision (final or exploratory). In the case of an exploratory decision, people seek more information and start a new cycle, until they reach a new decision (final or exploratory).

## A Concise Historical Survey of Decision-Making Theories in Educational Context

From this point of view, the strategic choice starts with the calculation of the success of each alternative and then the prediction of the results follows by the person, based on his/her subjective evaluation judgment.

### C. *The Theory of Katz*

The theory of Katz [23] was initially a model that concerned vocational decisions, but then, after its improvement, it was used specifically in career decision-making. It was called the “Model for Guidance in Decision-Making regarding Career”, paying particular attention to personal values and information, as well as to the prediction of potential outcomes. There are three main elements influencing the decision-making process:

- the personal system of values, which is subjective;
- the information system;
- the predicting system for possible outcomes.

A person, assessing and prioritizing the alternatives, takes into account both the likelihood of success and the value it has been given by him/her. The best solution is valued based on the highest expected value.

### D. *The Theory of Tiedeman & O’Hara*

The primary form of the theory was formulated in 1961 by Tiedeman and it was a descriptive model [19]. In 1963, Tiedeman & O’Hara formulated a comprehensive theory [24], which refers to the vocational decision-making process, in the context of an evolutionary theory of professional development. This theory consists of two main phases in the process of vocational decision-making. The first one is the preparation phase that includes the following four stages:

- The stage of investigation, where persons proceed with the collection of information and the examination of alternatives.
- The stage of crystallization, where persons focus their interest on a set of solutions.
- The stage of selection, where a particular direction is chosen.
- The state of clarification, where the choice is finalized and a plan of action is created.

The second phase is the implementation and adaptation one that comprises the following three stages:

- Entering the new vocational-educational area and then trying to adapt to the new environment.
- The stage of reform, where, once persons feel acceptable, they are trying to influence their environment.
- The stage of integration, where persons strike a balance between the demands of the environment and their own desires and needs.

In the above process, the mechanisms of identifying and differentiating with faces and views are important. It is also important to note that the effectiveness of a decision depends on the degree of knowledge of both the self and the environment [19]. There are also four ways of approaching a situation of decision-making:

- Persons lack knowledge both of themselves and of the environment, a fact that causes a state of confusion (or “paralysis”) and this makes decision-making impossible.
- Knowledge of oneself but combined with an absence of knowledge of the environment, resulting in intuitive decisions.
- Lack of knowledge of oneself but knowledge of the environment, leading to the making of dependent decisions.
- Knowledge of both the self and the environment, leading to reasonable decisions.

### E. *The Theory of Vroom*

Vroom [25], influenced by the theory of Lewis [26] and using the wider theoretical context of motivational psychology, formulated a mathematical-statistical model of vocational decision-making that is highly complex. It is called the “expectancy model” and consists of two sub models: the valence model and the power model. According to it, a distinction is made between preference, choice and outcome. More specifically:

- A person prefers choosing the option that requires the greatest “valence” that reflects the intensity of his/her preference for that choice, resulting from taking into account the predicted results and the personal values and perceptions.
- A person chooses the solution with the highest “power” that refers to “expectations”; namely, the chances of success of alternatives; while expectations are a function of personal considerations for the possible outcomes of a choice, as to whether it is feasible, the implementation of the decision and the estimated hope of success.
- A person ends up in the solution considered to have the most realistic chance of success.

Finally, it is worth mentioning that this theory approaches to a significant extent the concept of compromise, which is found in the theoretical construction of Ginzberg [10].

## A Concise Historical Survey of Decision-Making Theories in Educational Context

### **F. The Theory of Kaldor & Zytowski**

This particular decision-making theory [27] is an economic and psychological model, classified in the logical-economic decision theories, because of its position that persons choose the solution that will bring them the greatest benefit. It focuses on making vocational decisions. The factors influencing the decision-making process are:

- the system of vocational preferences;
- the means available at the time of the decision;
- the expected degree of satisfaction from every possible outcome.

In decision-making, the persons compare “incoming factors” with “outgoing” ones. From this comparison, there is a net benefit of each alternative. The function of “usefulness” is very important in this model. In addition, it is important to note that optimization and maximization are considered to be the main motivations of persons. Finally, the subjectivity of the estimates, regarding the outcome and the utility of the alternatives, should be noted.

### **G. The Theory of Tversky**

Another theory of mainly educational-vocational decision-making is that of A. Tversky [28]. He called it “elimination by aspects”. In this case, “aspect” has the meaning of “condition”, which as a prerequisite becomes a criterion in decision-making. Having the reference framework in the above theoretical position, Tversky argues that persons take simultaneously account of the different alternatives. However from the beginning, persons have minimum acceptability levels (e.g., salary levels or occupational safety benefits, work at a specific place or at a specific distance from the place of residence, morning hours of work, weekly working hours, etc.). The alternatives are considered by the stakeholders if they meet the minimum acceptability levels set by them and those that do not meet these levels are discarded. This process results in those remaining alternatives that cover the minimum acceptability levels, while at the end, the alternative that meets most standards prevails. This is a theory of exception/exclusion based on standards that is obviously aligned with the rationale of rejection rather than selection [19].

### **H. The Theory of Mitchell**

As W. Mitchell himself notes [29], his theory is a modification of a pre-existing model, proposed in 1951 by Rustle and included in the regulatory category. That model was modified to adapt to the needs of vocational decisions. The core of the original model was that persons who need to make decisions actually create conflict situations. Thus, they compare the situations that they experience with ideal ones. The latter are also the conflict measure. Advancing this logic, Mitchell argues that persons in such processes take into account four groups of factors:

- Absolute terms per alternative; because these terms are characterized by rigidity, it is necessary either to secure them or to eliminate them, so that the alternative is feasible.
- The positive features of each solution, being defined as those that are desirable.
- The negative features of each solution, namely the undesirable ones.
- The neutral features that are detected, but they do not affect the decision state.

The usage of these elements is made at will in the decision-making process. Persons can either compare only the positive elements of each alternative, only the negative elements or make any combination of them, in the decision-making process [19].

### **I. The Theory of Harren**

Harren [30], based on the theoretical processing of Tiedeman & O'Hara [24], formed a new decision theory. It includes four stages in the decision-making process:

- Self-knowledge, self-perception and context awareness.
- Designing, organizing and implementing all the parameters of the decision-making process and its implementation.
- Commitment (verbal and practical) to the implementation of the selected option.
- Implementation of the choice, through the conversion of the decision into action.

Harren was also involved in the decision-making process, reporting three patterns of behavior in decision-making [19]: the logical, the intuitive and the dependent.

In the logical pattern of decision-making, persons take the responsibility for their choices and act according to their previous experience. Their actions are conscious, while they seek information about the decision and act responsibly. This pattern takes into account both the dimension of the self and the dimension of the context. It includes the following six stages:

- knowledge of the problem;
- initial gathering of relevant information and then acquiring knowledge, both on the characteristics of oneself and on the world of labor;
- making alternatives by evaluating what alternatives require further information, combining some of them and defining the implications of each choice;

## A Concise Historical Survey of Decision-Making Theories in Educational Context

- evaluation of the alternatives and commitment to one, while some of rest will be temporarily blocked and others will be definitively excluded;
- implementation of the decision;
- evaluation, where in the case of unwanted results, reassessment of both the objectives and the alternative options.

In the intuitive pattern, decisions are made spontaneously, with minimal planning, within a short time, while persons have limited information at their disposal. This process is characterized by a lack of rational assessment of alternatives, but it is useful in urgent or unpredictable situations and in interpersonal relationships (where there is a lack of prediction of the reactions of others).

The dependent pattern is followed by those who are affected in their decisions by the opinions, desires and expectations of others. In this case, persons refuse to assume their responsibilities. It is a useful pattern for matters of minor importance, but should not be used as an easy solution to avoid collecting information or because of the fear of choice and the consequences that causes.

### **J. The Theory of Gati**

Gati [31], based on Tversky [28], formed a new model of decision-making: the “sequential elimination approach”. This model is useful for blocking alternatives based on some specifications, when there are a variety of alternatives. According to Gati, there are various qualitative and quantitative dimensions in each alternative. Persons choose such a dimension and turn it into a criterion. This criterion becomes the basis for comparison of the different options. On the basis of this dimension, persons end up in the exclusion of some choices. For example, if a person wants to work online, he/she practically excludes all options that require his/her physical presence in the workplace. This model is based on a hierarchical classification of decision-making difficulties in broad categories, while the difficulties that arise are corresponded to criteria of finer distinctions [19].

## **CONCLUSIONS**

During adolescence, characterized by rapid and abrupt changes in the physical, mental, emotional and social sectors of personal development, adolescents have to make important decisions related to their occupational future. These decisions create to them future restrictions and limit the frames within they will move (most likely) over the longest period of their lives [32]. It is argued that adolescence, due to insecurity and instability, is the worst time for educational and vocational decisions, because young people are called upon to decide on important issues, such as their careers, their goals, the place they will work and live [33]. Additionally, the fact that adolescents are in a transition period (between childhood and majority) creates quite often conflicts, both with oneself and the family. This fact leaves open the question of whether adolescents are mature enough to make such decisions that will have important consequences for the rest of their lives [32]. In this respect, their training in decision-making models, probably chosen for being more suitable to particular personalities, within school context, is even more imperative.

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