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RESEARCH ARTICLE

BEHAVIORISM OR COGNITIVISM WHAT EDUCATIONAL MODEL IS PROPOSED FOR THE SCHOOLING OF THE BAKA OF THE GREAT EVERGREEN EQUATORIAL FOREST OF SOUTHERN CAMEROON?

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ABSTRACT

The effective participation of the Baka of the great evergreen equatorial forest in the work of national construction and socio-economic emergence of the nation is of the utmost importance for the government which advocates national unity and social integration. To achieve this, several projects for the modernization and emancipation of the Baka Pygmies have been developed and implemented since 1970. Education is one of them. But, despite the many measures taken, sacrifices made and efforts made, academic success rates remain extremely low. A suspicion of inefficiency then weighs on the current cognitivist educational model characterized by the Competency-Based Approach Pedagogy (CBA). Thus, some actors and partners in education propose a return to the behaviorist model represented by Pedagogy By Objective-s (PPO). But this measure is not unanimously accepted. The discussion is lively and embarrassing. As a result, teaching/learning in the schools of the forest Pygmy camps faces a painful didactic dilemma. The objective of this study is to operate an adequate choice. Do to that, it seems essential to us to objectively examine the traditional education of the Pygmies to see to what extent it can be adapted to one or the other of the two disputed educational models, or to create an effective hybrid model.

INTRODUCTION

Because their identity and culture are linked to the forest and they live according to a secular way that is difficult to normalize, the pygmies are considered as primitive beings, avatars of humanity (Kazadi, 1991, Bigombé Logo and Mimboh, 1998; Bigombé Logo, 1998; Abega, 1992). Indeed they are stigmatized and marginalized in all sectors of national life, even the education one. This is the main reason why, compared to their Bantu peers, young pygmies are lagging behind in schooling. Indeed, they are found, for example at 12-14 years old, in classes where the normal age is 6-8 years old. But curiously, these "old schoolchildren" systematically fail in all school subjects, especially in those that require an ability to abstract and/or conceptualize (Abega and Bigombé Logo, 2006; Mayoh Mboum, 1999). Faced with this reality, some actors and partners in education support the thesis that pygmies are naturally less intelligent than Bantu, and therefore should be educated primarily according to the behaviorist model. But others refute this opinion of the innateness of intelligence, and affirm that Pygmy schoolchildren are as gifted as their Bantu peers; that their failure is essentially due to the inadequacy of current educational methods to their ancestral way of life; that the cognitivist model would be just as effective for them. Thus two opinions clash and the reasons put forward on both sides seem relevant and well-founded. Hence, the embarrassment that has raised the question of which educational model to adopt for the Baka Pygmies of the equatorial forest of southern Cameroon. This question reveals the main objective of this paper which is to compare, in order to better adjust them, the two educational models mentioned. Such a study seems interesting to us insofar as it touches on one of the most important psycho-pedagogical problems: school failure. In addition, it would allow the educational authorities to take concrete measures to make the education of the Baka of Cameroon more effective.

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Psychology and education: The problem of model in education has always been put forward when talking about teaching/learning process (Bertand, 1979). Any pedagogical method is based on a certain conception of the child, society and their desirable relationships. Indeed, since antiquity, all the pioneers of pedagogy had glimpsed this necessity: Socratic maieutic was nothing other than a call to reflect on the child;

Rabelais and Montaigne had rebelled against verbalism and disciplinary rigor:, Alain had asked to know more about those we instruct than what we teach, and Rousseau had asked that we consider the child as a being in his own right. But, for these obvious facts to be perceived as such, it has been necessary that authoritarian philosophical and pedagogical traditions became weaker. The true precursors of pedagogical reforms were then Pestalozzi and Fröbel who introduced spontaneous activity and the experimental spirit into teaching. However, they did not take into account the development of intelligence and phenomena such as repression, frustration, the "ideal ego" and the "ego ideal". Herbart tried to adjust educational techniques to the requirements of psychic life. But his pedagogy was only a doctrine of receptivity and the elements of conservation that the mind has. In addition, it gave little importance to the influence of the environment and society. Dewey and Baldwin in the United States, Bergson, Binet and Janet in France, the Würzburg School in Germany, Claparède and especially Piaget in Switzerland, will take up these ideas to propose educational reforms that will be an adaptation of child psychology, social psychology and sociology to pedagogy. These research efforts will not only invigorate pedagogy, but also lead to the distinction between so-called "traditional" and "new" educational methods.

In traditional methods, the child is considered a miniature adult whose mind grows like a plant; an imperfect being; a weak being who must be provided with a tutor and who must sometimes be constrained; a resistant material that must be trained rather than formed or informed. Teaching is then a kind of transfusion or transmission of knowledge from the teacher to the students. Learning is listening to and remembering the teacher's words, appropriating tangible truths, storing ready-made knowledge and keeping it intact. Knowing is retaining, memorizing and being able to faithfully reproduce what has been taught. However, at the beginning of the 19th century, many school reform movements were to appear throughout Europe and America. Dewey (1916) and Hubert (1949 a, b) advocated pragmatism, and believed that teaching should first develop judgment, observation and reasoning by exercising them; that the teaching method should be at once intuitive, inductive, practical and active, and should be supported by a pedagogy of will, effort and personal discovery. In France, Claparède developed a "functional education" in five laws: i) the law of genetic succession which stipulates that the child develops naturally by going through stages that follow one another in a constant and universal order ; ii) the law of genetic-functional exercise which states that exercise is the sine qua non condition for the development of a function and the hatching of others; iii) the law of functional adaptation according to which the child only reacts if he finds an interest in it. His action is only triggered when it is of a nature to satisfy the need of the moment; iv) the law of functional autonomy according to which the child is not, considered in himself, an imperfect being, but a being adapted to the conditions which are his, and whose activity (mental and physical) is appropriate to his own needs; v) the law of individuality which says that every individual differs more or less from others on the physical and mental levels. In Germany, Kerschensteiner bases education on group work and manual work, and gives as tasks to the school professional education, the moralization of the profession and of the society in which this profession is practiced. His pedagogy can be summed up in five principles: i) the principle of sociability (the school is a working community, a powerful means of civic and moral education); ii) the principle of individuality and totality (teaching must embrace the child in his totality and individuality); iii) the principle of authority and freedom (education is a requirement presented as a free choice); iv) the principle of topicality (the school must work to satisfy the child's present needs); v) the principle of activity (education aims at an active assimilation of values and not an external conformism). Towards the end of the 19th century, all this abundance of ideas and experiences will lead to the certainty that educational action must take into account the personality and development of the child. Studies on child psychology will then follow one another at a frantic pace according to functional, behaviorist and psychoanalytical perspectives. The first will focus on discovering how the child's personality is born, develops and functions based on developmental psychology. The second perspective will seek to understand and describe the child's behavior in a situation, the school and the class will be considered as restricted groups, which will lead to sociology of education and psychopedagogy. The third, thanks to work on sexuality and student/student, student/teacher and student/parent relationships, leads to replacing dogmatic and repressive pedagogy with a pedagogy of "channeling and sublimation of instincts" which prohibits corporal punishment, and proposes free discussions on concrete cases through psychodramas and sociodramas, "group therapy", positive discipline, simple, natural, optimistic and progressive sexuality education.

The new methods will then try to embrace the child in his individuality and to educate him by taking into account his needs, his environment, his age and his own nature, all aspects of his personality, his physiological maturity, his artistic and manual tastes, his aspirations, his aptitudes, his desires, his socialization, his tendencies. They favor the work of assimilation, personal discovery, respect for freedoms and fundamental human rights. They are then characterized by the individualization of teaching, the development of the scientific and democratic spirit, disciplinary flexibility and the search for an atmosphere of gaiety, open-mindedness, free work and dynamism. They are based on reason, universal truths and obey the methodological rules of evidence, analysis, synthesis and control. They strive to bring together rationalism and empiricism by giving priority to truths that can be concretized and not to truths in intellectualist potential. They are concerned with knowing with what intellectual equipment the child will approach each stage of his schooling, and towards which realities his personal interests lead him. They try to adapt the teaching to him, by allowing him to "launch" and take initiatives, to give his opinion, to put forward hypotheses to verify them, to listen and admit the contradiction, to discover, to understand, to explain, to observe, to manipulate, to note analogies and differences, to series, to classify, to compare, to deduce, to induce, to experiment, to interpret before concluding and generalizing. Finally, they apply themselves in a joyful atmosphere and environment, put the child in contact with his environment and integrate him perfectly, focus much more on children with learning difficulties, victims of a social, physical or slight mental handicap. From the above, it appears that it is much more the study of childhood and the child that has been the basis of educational reforms. In fact, this study has allowed the child to cease to appear as a blank slate, as a passive receptacle of knowledge, to become a being full of virtualities, an active being. The conception of a slowed down and partial life has gradually been replaced by the idea that at each moment of its evolution, "the little one of Man" lives a complete and original life, adapted to its own requirements. And, today,

childhood is considered as a period where the child's dynamism asserts itself with intensity, where a physiological, motor and psychic effervescence constantly and profoundly modifies its personality. Also, an austere and rigorous pedagogy has gradually been replaced by a pedagogy that takes into account the results of psychological studies. Today, we seek to systematically adapt teaching to the child's own mental structures. To achieve this, behaviorist and cognitivist points of view emerge.

Behaviorism in teaching/learning process: Behaviorism was born from the questioning of the soul as an object of study of psychology and introspection as its method. Indeed, in 1913, Watson will sign the manifesto of the behaviorist or behaviorist revolution for which psychology only studies what is observable. Behavior will then be explained solely from the observables that are the stimulus (S) of the environment and the response (R) that they provoke in the individual. Between S and R, it is the black box that cannot be the object of scientific study. Behaviorists were particularly interested in learning problems and proposed programmed teaching and a teaching model based on positive (reward) and negative (punishment) reinforcement of the essential elements of behavior control. Their educational principles are as follows: i) there is learning only if the response associated with the stimulus is actually produced. Consequently, the teacher must produce an observable response to the stimulus; ii) to learn or teach, one must be able to discriminate the relevant stimulus in order to give it the appropriate response; iii) any positively reinforced behavior tends to reproduce itself. The teacher must therefore propose exercises graduated according to the learners' abilities so that they can be regularly encouraged in the efforts they make to succeed; iv) the response must be shaped, modeled by successive approximations and training so that it is definitively acquired. Consequently, the teacher will therefore propose exercises of graduated difficulty and will positively reinforce all responses that approach the ideal response; v) a response already associated with a stimulus can be transformed to another stimulus by the principle of operant conditioning. Teaching will therefore use already conditioned stimuli to provoke new conditioning; vi) learning or teaching that is too closed, without generalization, lacks interest, so transfer must be promoted; vii) most learning is learning of response chains, so chaining (association) of responses must be practiced to obtain complex learning (Bandura, 1986).

This behaviorist educational model is illustrated by the PBO which poses as a prerequisite to any teaching, the clear definition of the operational pedagogical objectives (OPO) to be achieved. That is to say that the teacher must state his intentions by describing the behavior expected of the student at the end of a learning sequence (Hameline, 1979). The OPO reveal Bloom's 6 levels of cognitive skills that a skill requires: knowledge, understanding, application, synthesis, evaluation, creation and metacognition. According to Gagne (1974, 1985, 1987) and Mager (1962), the elements of the formulation of OPOs are the material, the supports necessary for the realization of the expected behavior, the conditions for realizing the expected behavior, the performance to be achieved, the performance or acceptability criteria or performance evaluation. Thus clearly defined, the educational objectives guide the choice of learning activities, teaching materials and teaching methods. They also specify to the learner what is expected of him at the end of the lesson. Finally, they allow a better evaluation of learning.

Cognitivism in teaching/learning process: Cognitivism is a psychological movement that emerged from the development of linguistics, computer science, artificial intelligence, and the formalization of Shannon and Weaver's (1949) theory of information processing, which focuses on unobservable mental phenomena and processes that occur in the "black box", i.e. between S and R. From then on, the concepts of representation, knowledge, interaction-feedback, decision, individual context, motivation, etc., take on fundamental importance, and we then seek to explain more complex psychological activities or functions, including the functions of perception, learning, memorization, intelligence, language, motivation, and vigilance. Cognitivists then believe that the individual acts according to needs and the goals he is trying to achieve. However, they distinguish four variants of cognitivism:: i) that which aims to describe and explain the mechanisms of development that intervene between SR; ii) that which gives itself as object of study the internal, mental phenomena; c) that which insists on the individual as the sole initiator of his own behaviors; iii) that which maintains and consecrates the unbundling between the cognitive and the affective.

Cognitivism has greatly influenced teaching/learning through studies on the main psychological functions (Blaye, 1989). It has allowed the learning of reading by the syllabic and global methods, the development and efficient application of intelligence tests, school knowledge, learning assessment tools, etc., the screening of mental deficiency, intellectual insufficiency, mental retardation, etc. we distinguish in this current, constructivism and socioconstructivism (Brousseau, 1989). These theories provide information on the effects of maturation and the development of social interactions on education. The acquisition of knowledge, know-how and interpersonal skills is conceived as a process of collaboration between the child and the adult through mechanisms of support, formatting, supervision, remediation, compensation, etc. Cognitive development is then linked to the ability to present intentional behaviors or conducts that are socially developed. In doing so, it is the ability to process information that will allow behaviors to be regulated. Thus, individuals only differ in their ability to process information received from the environment to regulate their behavior. Finally, educators must understand that the child refers to "models" and benefits from the experiences of adults to acquire knowledge (Bachelard, 1949).

This cognitive educational model is illustrated by the CBA which hopes to develop dispositions to generate behaviors adapted to various and changing everyday life situations. In fact, the CBA wants to solve this problem of the inoperability of «established knowledge" and the professionalization of teaching in today's world where competition and experience are essential. It aims to make learners more effective and more competitive by developing their skills. It is no longer enough to know for the sake of knowing, but to know in order to be competent. The CBA ultimately wants to equip learners' of resources available at any request and allowing them to integrate into the society in which they are called to live by solving their daily problems. In this perspective, the APC is based on the principles of globality, deconstruction, perceptive alternation, rationalism and empiricism, distinction, significance, coherence, integration, transfer or compensation and iteration. From then on, it reinforces the inferential approach, allows through integration situations, to operationalize knowledge. It gives priority to group work, to

sociocognitive conflict. It is active and advocates inference by realizing the reinvestment of knowledge in the resolution of significant problems of daily life. It then combines PB0 and inferential pedagogy. The new methods too, are still not unanimous, far from it. Indeed, it is argued that: i) the pragmatism, excess of freedom and excessive disciplinary flexibility that they advocate, lead to disorder and libertinism and stifle idealism; ii) group or group work can be an opportunity for certain childish personalities to sink into following; iii) the child's natural egocentrism and lack of experience limit scientific discussion and contradictory debate; that excessive numbers hamper the individualization of teaching. But what is most criticized about current methods is an insufficiency of the "culture of will" and taste for effort; that, in the name of freedom, they abandon learners to the instincts that push them towards the line of least resistance to make them irresponsible beings and citizens, incapable of forcing themselves and acting out of duty or patriotism.

The evolution of teaching methods: All education necessarily relies on a certain conception of the child, society and their desirable relationships. Indeed, since antiquity, it is much more the study of childhood and the child that has been the basis of educational reforms: the child has ceased to appear as a blank slate, as a passive receptacle of knowledge to become a being full of virtualities, an active being. The conception of a slowed down and partial life has gradually been replaced by that which at each moment of its evolution, "the little one of Man" lives a complete and original life, adapted to the requirements that are specific to it. And, today, childhood is considered as a period of life where the dynamism of the child asserts itself with intensity, where a physiological, motor and psychic effervescence constantly and profoundly modifies its personality. Also, an austere and rigorous education was gradually replaced by an education that took into account the results of psychological and sociological studies. We then sought to systematically adapt teaching to the mental structures specific to the child. All the pioneers of education had, for a long time, foreseen this necessity. But the true precursors of the reforms were Pestalozzi (1746-1827) and Fröbel (1782-1852) who introduced spontaneous activity and the experimental spirit into teaching. However, they did not take into account the development of intelligence and phenomena such as repression, frustration, the "ideal Self" and the "ideal of the Self". To fill this inadequacy, Herbart (1776-1841) tried to adjust educational techniques to the requirements of psychic life. However, his pedagogy remained a doctrine of receptivity and the elements of conservation that the mind has. In addition, it gave little importance to the influence of the environment and society. It was then that the research of Dewey (1859-1952) and Baldwin (1861-1934) in the United States, Bergson (1959-1941), Binet (1857-1911) and Janet (1859-1947) in France, the Würzburg School in Germany, Claparède (1873-1940) and especially Piaget (1896-1980) in Switzerland would not only invigorate pedagogy, but also lead to the distinction between so-called "traditional" and "new" pedagogical methods. The practices of the former were organized around social representations of the child and society. The infantile mentality was schematized there from a background of ideas that were both animist and mechanistic.

The child was considered a miniature adult, and therefore an imperfect, weak, unsuitable being; a resistant material that was more about training than educating. The new methods, for their part, will not only embrace the child in his individuality and educate him by taking into account his needs, his environment, his age and his own nature, all aspects of his personality, his physiological maturity, his artistic and manual tastes, his aspirations, his aptitudes, his desires, his socialization, his tendencies, but also to eliminate dogmatism, to favor group work, personal discovery, respect for freedoms and fundamental human rights. Indeed, at the beginning of the 19th century, Dewey (idem) advocated pragmatism which wanted to judge the mason only at the foot of the wall. He asked that the learner always be placed in an authentic and significant situation of daily life which would stimulate his reflection. This is the same credo for Hubert (idem), for whom the accumulation of knowledge does not count but rather the way of acquiring it and the goals for which it is acquired. These two authors believe that teaching is above all education and culture of the mind; that it must first develop judgment, observation and reasoning by exercising them. The teaching method must therefore be at the same time intuitive, inductive, practical and active. All this must be supported by a "pedagogy of will and effort". In France, Claparède is more concerned with reconciling teaching with the needs of the child. Thus, we come to think that an act that is not directly or indirectly linked to a need is an act against nature. It is therefore necessary to arouse the need in the child. The method advocated by Claparède is play. In Germany, Kerschensteiner (1854-1932) based education on group work and manual work, and gave the school the tasks of professional education, the moralization of the profession and the society in which this profession is practiced.

Towards the end of the 19th century, all this excitement and abundance of ideas and experiences will lead to the certainty that educational action must take into account the personality and development of the child. Studies on child psychology will then follow one another at a frantic pace according to two different perspectives. The first is a functional perspective which will focus on discovering how the child's personality is born, develops and functions, and a behaviorist perspective which will essentially seek to understand and describe the child's behavior in a situation. Teaching methods will therefore be characterized by the individualization of teaching, the development of the scientific and democratic spirit, disciplinary flexibility and the search for an atmosphere of cheerfulness, open-mindedness, free work and dynamism. They will be based on reason, universal truths and will obey the methodological rules of evidence, analysis, synthesis and control. They will strive to bring together rationalism and empiricism by giving priority to truths that can be concretized and not to truths in intellectualist potential. They will be concerned with knowing with what intellectual equipment the child will approach each stage of his schooling, and towards what realities his personal interests lead him. They will try to adapt the teaching to him, by allowing him to "launch" and take initiatives, to give his opinion, to put forward hypotheses to verify them, to listen and admit contradiction, to discover, understand, explain, observe, manipulate, note analogies and differences, to classify, compare, deduce, induce, experiment, interpret before concluding and generalizing. Finally, they will apply themselves in a joyful atmosphere and environment, will put the child in contact with his environment and integrate him perfectly, will focus much more on children with the greatest learning difficulties, on children who are victims of a slight social, physical or mental handicap, the laborious activity of the latter replacing that of the teacher. We will then distinguish: a) optimistic methods which, by having complete confidence in the nature of the child and leaving him totally free, claim to lead to a full development of his personality. But, optimistic methods

are criticized for: their lack of conformism; ignorance of the needs, requirements and instinctive inclinations of the child; the infantilization of teachers; the absence of a social model of reference; the absence of discipline; b) child-centered methods. Here, what matters is the way in which the child acquires knowledge. Teaching must develop judgment, the spirit of observation and reasoning by exercising them. The method is practical, inductive and above all active; c) Methods centered on the class group; d) Methods centered on society which consider that the main objective of education is the adaptation of the child to his environment.

Pedagogical reforms in Cameroonian primary education: Education occupies a large place in Cameroonian society as an undeniable factor in development. Aware of this, political leaders, with a view to seeking quality education, created the Yaoundé Institute of Applied Pedagogy for Rural Development (IPAR) in 1967. The aim was to provide elementary education adapted to our country, which is 80% agricultural. This reform concerned the content of the programs, teaching methods, initial and continuing training of teachers, as well as the production of appropriate teaching materials. This was referred to as "ruralization". From 1975 to 1990, PPO was adopted. It sought to resolve the problem of "navigating by sight", and therefore of pedagogical "laissez-faire". In addition, teachers could neither measure the results of their teaching nor know whether the goal they had set for themselves had been achieved at the end of the lesson. Therefore, the precursors of PPO advocated, before any teaching, the clear and prior definition of the educational objectives (and not the goals) to be achieved in the long term. The idea underlying the research efforts on educational objectives was that teaching is only effective and efficient to the extent that it achieves a targeted objective. Therefore, the teacher, before giving a lesson, had to not only determine the techniques to use, the needs expressed by his students and their prerequisites, but also set the objectives he wanted to achieve.

Thus clearly defined, the educational objectives would guide the choice of learning activities, teaching materials and teaching methods. They would also specify to the learner what was expected of him at the end of the lesson. Finally, they allowed for better assessment of learning. Despite its relevance, it had some limitations, namely the lack of creativity, the lack of motivation of students, learning is done by heart with a lack of concretization, the failure to take into account the opinion of the learner. In addition, it was not possible to provide solutions to factual problems. For these shortcomings, the PPO was replaced in 1995 by the New Pedagogical Approach (NAP) which advocates the development of inferential thinking, and sets as its main objective, the training of creative, productive men and women. The so-called "inferential" pedagogy uses old information or knowledge (previous concepts) to acquire new information or knowledge. It was a question of combating textual thinking, that is to say memorization, repetition and restitution in which the pedagogy by objective had plunged the learners. It was necessary to find a way to awaken and arouse in them the capacity to infer, that is to say the inductive, hypothetical and deductive thought which synthesizes deduction (reasoning by Aristotle's syllogisms) and induction (reasoning by Bacon's analogy), a sort of permanent back and forth between empirical facts and ideas. But the question remains how to make learners put forward hypotheses when faced with a difficulty to be resolved. The solution is found with the "problem situation".

Finally, the great innovation brought by the inferential method is the sociocognitive conflict or the confrontation of knowledge by learners. This is also a response to the inadequacies of dogmatism and verbalism which characterize the PPO. The inferential method restores and stimulates curiosity, strengthens self-confidence, develops communication and encourages the choice of objectives according to interests. Here, learners are led not only to make judgments about their observations, but also to justify them. This is simply the development of the scientific mind according to Claude Bernard. The learner thus learns to argue, to listen, to discuss, to recognize his errors, in short, to reason instead of memorizing. From this confrontation, a truth that is valid and relevant for all will emerge. However, critics accuse it of being an incomplete, intellectualist model that distances children from the reality of daily life, and therefore of a lack of contextualization of the knowledge acquired.

In 2003, the NAP was replaced by the Competency-Based Approach (APC), one of whose missions is to train a citizen capable of facing the challenges of daily life. This reform reflects the shift from a behaviorist reference to a cognitivist reference. From this perspective, it is no longer a question of producing reproducible behaviors, but of developing dispositions to generate behaviors adapted to various and changing everyday life situations. In fact, recent pressures for professionalization are part of a context of social and economic changes characterized by restructuring of production sectors, by a frequent renewal of professions, by an evolution of the forms and organization of work. The individual is supposed to take initiatives, adapt, be autonomous in carrying out tasks, evolve in his functions and, if necessary, change profession several times during his professional career. In such a framework, learning typical behaviors would appear to be ineffective. The model of competence, as an evolving cognitive organization allowing behavioral responses adapted to the characteristics of a situation, seems ideally to adjust to the educational expectations linked to this context. Thus, professional circles and employers value and reinforce the use of this model, which is also called upon in the management of internal skills in companies.

The APC therefore comes to solve the problem of the inoperability of "established knowledge" and the professionalization of teaching in today's world where competition and experience are essential. It aims to make learners more effective and more competitive by developing their skills. The idea is that you have to be the best, the most sought-after, the most sought-after in the world of work and employment, to be the best among the best. It is therefore no longer enough to know, but also to be competent. We understand that the objective of the APC is, ultimately, to provide learners with resources available at any time and allowing them to integrate into the society in which they are called upon to live by solving their daily problems. The APC is then the pedagogy of the development and integration of skills which requires teachers to radically change their paradigms, habits and behaviors; a profound change not only in the organization and teaching practices in schools and classrooms, but also in the programs and school architecture. In this perspective, the APC is based on the principles of globality, deconstruction; perceptive alternation of rationalism and empiricism; distinction; significance; coherence; integration; transfer or compensation; iteration. The APC ultimately wants to link the child's school experience to his or her daily life. From then on, it reinforces the inferential approach which favors the development of intelligence. It will therefore make it possible,

through integration situations, to operationalize this intelligence. Like the inferential approach, the APC gives priority to group work, to the confrontation of ideas (sociocognitive conflict). It is active and advocates inference by realizing the reinvestment of knowledge in the resolution of significant problems of daily life. The pedagogy of integrating skills ultimately combines pedagogy by objective and inferential pedagogy. However, the APC is not unanimous. It is argued that: a) the pragmatism, excess of freedom and excessive disciplinary flexibility that they advocate lead to disorder and libertinism and stifle idealism; b) group or group work can be an opportunity for certain childish personalities to sink into following; c) the natural egocentrism and lack of experience of the child limit scientific discussion and contradictory debate; d) the plethora of numbers weigh down the individualization of teaching. However, what is most criticized is an insufficient culture of will and a taste for effort; that is, in the name of freedom, the APC abandons learners to the instincts that push them towards the line of least resistance to make them irresponsible beings and citizens, incapable of forcing themselves and acting out of duty or patriotism.

Traditional education of the Baka pygmies: Pygmies are aborigines who live deep in the evergreen virgin forest, exclusively from hunting, gathering and collecting. For them, the word "child" does not refer to the same reality and the same meaning as in the western conception. In their conception, there is: early childhood (0-7 years) which includes children still living under their mother's breast; Second childhood (8-16 years) which includes boys who already live in their own hut and are separated from the girls, adolescence (16-20 years) which is the period of preparation for engagement, adulthood which begins around the age of 20 and which includes all the heads of families, the wise men, that is to say the old men. It should be noted that belonging to one of these categories does not depend on chronological age, 15 but on achievements: one can be a child or an adult at 20 or 16 years. There is a division of labor based on gender. Boys begin their education by learning to hunt small rodents and birds. The older they become and the more experienced they are, the more they are allowed to hunt game with their elders. However, they remain in retirement and meticulously observe the strategies adopted by professional hunters. In the evening, they participate in hunting commentaries and the different strategies that could have been taken in imaginary situations. On occasion, apprentice hunters propose their options and explain them; and/or answer trick questions asked by their elders. It is also often on this occasion that they learn about animals and the dangers they pose to unwary hunters, and how to avoid them. When a young person takes part in a real hunting party for the first time, he is virtually supervised and constantly monitored by seasoned hunters. All his actions are dictated to him by the "master hunter". This is often an initiation to hunting rather than a hunt, because it is not the game that counts, but the triumphant and above all safe return of the apprentice hunter. The latter will only be considered a seasoned hunter when he proves through practice that he is familiar with all the techniques of hunting and avoiding dangers. The same is true for girls who are taken care of by their mother and older sisters who introduce them to gathering, building huts, preparing meals, sharing and fishing, etc. From the above, we can easily see that among the Pygmies, education, learning and teaching are based more on behaviorist principles which are: i) association. Indeed, the Pygmies link each action they undertake or each act they perform to a particular result. To educate their children, they create problem situations to be solved. The children then learn by their mistakes, because successful problems allow them to choose the right action; ii) conditioning. The Pygmies learn by trial and error, and undergo both operant and reactive conditioning. Parents rely more on reflex and training, or seek to trigger the desired behavior by mound by reinforcing it positively or negatively. They also develop in the child the ability to discriminate stimuli; iii) the law of effect and exercise. Among the pygmies, that which creates pain, torment, sadness, unhappiness, etc., is abandoned and that which creates pleasure is adopted, admitted, permitted, approved, accepted. Thus, a behavior is more likely to be reproduced if it leads to satisfaction and to be abandoned if it causes suffering. If, therefore, a stimulus leads to a situation in which a response is required and the resulting state of satisfaction is learned, the learned behavior will be more likely to be repeated. The connections are thus strengthened by practice and weakened by the interruption of this practice; iv) the primacy of the observable over the unobservable. Indeed, to judge an individual, the Pygmies are not interested in the ideas, words, feelings, states of consciousness of this individual, but in the actions and acts that are directly observable, measurable, quantifiable that he poses. In addition, imitation is the means par excellence of education among the Pygmies. Indeed, children copy, by observation, the behavior of their parents. Identification and social interaction are therefore the real sources of learning.

As a conclusion: Studies show that young Pygmy schoolchildren do not suffer from congenital mental retardation, and that they can reach the same academic levels as their Bantu peers (Itong à Goufan, 2023). There should therefore logically be no differences in the design, development and application of school programs in primary schools in ZEP, towns or villages, particularly schools in forest Pygmy camps. The difficulty that Pygmies experience in school learning seems to simply lie in the transition from empirical manipulation to mental operations and therefore, from the concrete to the abstract, and vice versa. However, Western education not only categorizes learners, but also currently has a more cognitivist than behaviorist orientation. This is precisely where the problem lies because the Pygmies themselves are more behaviorist than cognitivist. The solution would therefore come from the application of psychopedagogy and contextualized learning, as well as in the taking of political, economic and social measures to encourage effective and efficient management of educational resources, as was the case during the colonial period, with the "little Negroes" (Dikoume, 1997; Bigombé Logo, 1994; United Nations Development Program, 2003). In this regard, it must be taken into account that in today's world, it is imperative to teach instrumental schemes rather than ready-made knowledge, to create intellectual availability rather than to fill memories. It is therefore not a question of making a choice, however judicious it may be, between the behaviorist and cognitivist model of teaching/learning, but of a judicious combination of behaviorism and cognitivism. It is also necessary, while respecting the interest of the pygmies for concrete things, to place them in contact with the realities of the world, facts and the environment. They must be forced to discover through knowledge, the abstract truths that no one accesses without effort and without knowledge of which their personality would remain devoid of any spirituality. In this regard, the role of the teacher is that of a tutor, an accompanist, a support, a guide. Finally, the APC must be applied in its entirety. The model that

is therefore appropriate for the education of pygmies is the one that links behaviorism and cognitivism. It is a question of emphasizing the so-called "cognitive-behavioral" techniques that aim to modify inappropriate behavior in a specific situation; on observation, the emission of hypotheses, the application, the analysis and the interpretation of the results, the generalization, etc.

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