



Proposals of Quaterly Themes in the Framework of the Implementation of the Interdisciplinary Evaluation System in Secondary Education in Cameroon

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Authors' contributions

This project was designed by author FTJC. The work was carried out by authors BBB, MMH, OSA, NTF, DTDR, TTOM, PPR, and MNAR, under the supervision of author FTJC. They all contributed to the exploitation of results and to the production of the final manuscript.

Article Information

DOI: 10.9734/AJESS/2023/v45i1973

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/100263>

Original Research Article

Received: 17/03/2023
Accepted: 20/05/2023
Published: 02/06/2023

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ABSTRACT

The aim of this study was to propose themes capable of guiding quarterly evaluations in secondary education in Cameroon. For this, the work was carried out in the field and indoors. In the field, it was a question of supporting Heads of Departments in the development of themes proposals. Indoors, the work dealt with the producing of unique respective quarterly themes. So, it can be easily seen that the desire for some Educational Departments to work in synergy as well as their difficulty in agreeing on the themes responsible for guiding the quarterly evaluations is real. The themes then designed for the first group of Pedagogical Departments are successively: Well-being and the challenges of daily life; Environmental protection and health promotion in daily life; Technological advances, interculturality and inculturation for a better integration of young people in the "modern" world. Regarding the second group, the themes are respectively: The disintegration of African cultures from the slave trade to the present day; The removal of barriers in view of the promotion of Pan-Africanism; Technological advances, interculturality and inculturation for a better integration of young people in the "modern" world. The possibility of rebuilding the contents of the programs of the various Pedagogical Departments around previously constructed themes remains possible in Cameroon; it is the guarantee of a training strongly rooted in Cameroonian culture, seen here as the springboard for economic growth.

Keywords: Cameroon; culture; education; competence based approach; pedagogical department; quarter; evaluation; themes; interdisciplinary.

1. INTRODUCTION

Since the advent of the so-called European school in Cameroon, the education system has been changing [1]. This is how we have regularly moved from the NPA (new pedagogical approach) to the objective-based approach, then recently to the competency-based approach (CBA) [2]. In response to this, the emphasis is increasingly placed on the need to develop a type of assessment capable of inducing over the trials, the learner's ability to adapt to the permanent upheavals imposed by the advent of the concept of global village [3]. However, it is very often noted that the competency-based approach does not really seem to play the role assigned to it at the time of its implementation in the educational environment in Cameroon. Indeed, we can see in the field the difficulty with which learners try to make the link between the knowledge received and their daily lives. Moreover, when the time comes to bring together knowledge from various backgrounds to try to solve a problem in unwavering intellectual gymnastics, the blockage is totally complete [4]. This break can easily be justified by the non-assimilation of the concept of interdisciplinary. Indeed, they are always reminded in a class situation of the need to make the link between all the knowledge received; and as underlined by [4], the superficiality of their different knowledge cannot allow them to pass to a higher degree. Unfortunately, as highlighted by [2], interdisciplinary occupies a prominent place in

CBA approach. In view of the facts marking the first seven years of application of the CBA in Cameroon, [5] made an inventory which made it possible to assess the seriousness of the evil. He then tried to propose local amendments [4], or even local or complete restructuring of the Cameroonian education system, with the aim of allowing young Cameroonians to truly benefit from the benefits of the skills-based approach. The need to carry out such an action remains topical, all the more so since today, young people of all stripes are called upon to meet [6]. Agreeing with [4], the employer or the evaluator will not be interested in the origins or the learning conditions of the candidates who will pass before him; but, instead, it will strive to emphasize the strongest applicants, applying either for funding or for a position [7]. On a completely different level, the realization of a project requires the ability to set in motion a battery of knowledge, or else to bring together people from different specialties whose energies should be pooled to achieve the prefixed goal in the difference [8]. In these different cases, it appears that it is mandatory for the learner to be able to make an undeniable link between his different knowledge [9,10]. Therefore, if the approach led by the teacher has not allowed the learner to take the measure of the importance of interdisciplinary in his learning process [5], it becomes rightly necessary to open before them a canvas that they will have to follow in order to discover and then install in their minds the notion and the importance of carrying out interdisciplinary

actions in their academic environment from the outset, then in their daily life in a second phase. This new maneuver to be investigated is all the more relevant since in the contemporary world, the young person, to get out of it, will have to find himself, even unconsciously, at the crossroads of many knowledge, both divergent and convergent, that he will have to be able to put together to make their way through the inextricable tangle of difficulties that punctuate the daily life of the human community. In this sense, [11] proposed an evaluation approach, which he called interdisciplinary evaluation. The subsequent evaluation of the impact of this approach made later by [12] was generally considered positive. However, in detail, agreement on the themes that should guide the evaluation of skills remained difficult in the various secondary schools that agreed to lend themselves to this attempt to personalize the evaluation system in force in Cameroon. This is the reason that justifies the establishment of this study. It will then be a question here of proposing to the educational community quarterly themes capable of respectively meeting the expectations of the Pedagogical Departments able to apply the interdisciplinary evaluation system. This is the guarantee of the eradication of the autarky that has always existed between the different Pedagogical Departments within secondary schools in Cameroon, and this for a training that truly guarantees the harmonious integration of the young person into the world of employment according to [5].

2. MATERIALS AND METHODS

2.1 Materials

In Cameroon, the number of evaluations per quarter is set at two. But in denominational secondary schools, this figure is revised upwards because of the love of religious for permanent, intensive, and well-done work [13]. Also, beneficial orientations for learners have been initiated in some of the denominational establishments. In this sense, from the three quarterly evaluations, one values the practical aspects related to the teaching unit; [14], magnifying such an approach, qualify it as an entrepreneurial vision in the school environment.

To do even better, some of these establishments, to ultimately contextualize their teaching procedures, have drawn the activities furnishing their practical aspects from the Cameroonian informal sector [5]. These include,

among other things, the drying of fish, the production of avocado, coconut and palm oil, the production of gari, the production of kossam, the manufacture of tables and chairs from local or recycled materials, gadgets machines, brooms, making fruit juice, making cassava sticks, water-fufu, mitoumba, to name a few. The juice production activity is judiciously punctuated by the seasons of the different fruits as shown by [15,16].

Regarding the two theoretical evaluations from the three mentioned above, one is a weekly harmonized evaluation and the other takes place during the intensive session at the end of the term. In practice here, the different Pedagogical Departments operated completely independently until 2020. During this period, the subjects of evaluations were at least 85% focused on the specific reality of the orientation of each Pedagogical Department. If it sometimes happened that in a burst of pride we found suspicions of markers of interdisciplinary in the question papers set for evaluations, these were quite simply artefacts; these cases accounted for approximately 15% of cases. It can therefore be noted that given the independent nature of the evaluations practiced until 2020 in Cameroon, interdisciplinary has done poorly in favor of multidisciplinary [5]. We can then say with [16] that the difficulty of learners in Cameroon to make relevant links between their different knowledge when they are confronted with difficulties as analyzed by [5] is a marker which today translates the need for decision-makers in this area to think differently about the practice of school in Cameroon.

In response to this concern around the Cameroonian learner, [11] wisely proposed the implementation of the interdisciplinary evaluation system. In the practice of this approach, the author suggests that in the section of the question papers dealing with the evaluation of competence, the competence as targeted be considered as a level of partial competence. In fact, [2] then [4] see in competence the capacity for an individual faced with a given situation to consider a problem with many hats while remaining particularly coherent. For these authors, this state of mind allows the actor to bring together the knowledge from different sides in order to organize them, prioritize them, then fit them harmoniously with a view to achieving an end that is intended to be favorable as expected by [4] when mirroring the types of learners that can be detected by scrutinizing the message

inscribed as a watermark behind their class note through the channel of the Matrix that bears his name. The same author, in his matrix for scrutinizing the message hidden in the watermark behind marks obtained after each evaluation, presents the candidate with the code 2.2.b as the one who will be the ablest to adapt to the context of globalization as described by [17]. This is all the more relevant since the financial backer or the recruiter will only be interested in promoting the candidates most likely to contribute to the improvement of their structure. Later, at the end of an evaluation, the impact of the implementation of this approach in some secondary education establishments in Cameroon was generally considered positive by [12] despite some points that need to be improved for the implementation coming.

2.2 Methods

The theme as presented here is in fact a project designed in relation to a term, so that the contents of the program by subject for the period are necessary tools for its resolution. To succeed in producing the themes, the work was carried out in the field and in the laboratory. In the field, it was first a question of clearly explaining what is meant by theme to the various actors who had to intervene in the production of these ideas. This step completed, with the heads of Departments eligible for the approach, ways and means capable of facilitating the production of the respective themes by quarter and by Educational Department have been brought together. In this sense, a meticulous study of the contents of the programs of the different Pedagogical Departments deemed eligible for this approach has been proposed; six proposed themes were made available for the Heads of these Pedagogical Departments. In the detail of these themes proposals, it was in fact a question of the Heads of Department drawing inspiration from them to produce a theme per quarter that responds to the sensitivities of their respective Pedagogical Department. Along the way, they were regularly reminded that the expected projects had to take into account the modules to be taught during each of the three terms punctuating the school year. Also, in due time, a meeting bringing together the Heads of the Departments concerned by the approach was convened. It has gradually made it possible to reframe the energies of each other. At the end of this first part of the work, the various proposals made per quarter by the various Pedagogical Departments eligible to

participate in the program have been brought together.

In the laboratory, a specially designed team carried out the second phase of the work. It was in fact a question for the team of starting from the proposals of themes made by quarter to design an average quarterly theme. This is how, at the end of the work of this team, the three annual themes were generated. Given the particularities of the Departments selected for this project, they have been grouped into two sets. This reality then logically imposed that per quarter, two themes be designed, one for the first group and the other for the second group. However, the themes proposals made for the third quarter converged on the same idea; this is how a single theme was then made available for the third quarter.

In practice, these quarterly themes will respectively be the framework around which the situations will be designed per quarter and per group to guide the evaluation of skills in intensive evaluation situations.

In Group 2, the proposals for themes by quarters of the Department of History were respectively considered as the average quarterly themes according to the prescriptions of [11].

3. RESULTS AND DISCUSSION

The academic year is organized into three didactic terms, and in particular the first, the second, and the third; this reality is permanent in the Cameroonian education system as pointed out by [18]. For each of these trimesters, the various Pedagogical Departments have regularly proposed themes according to their particularities. Up to this level, one can easily visualize the autarky that has always existed between the different Pedagogical Departments within secondary schools in Cameroon as highlighted by [11]. During the phase of presentation of the theme proposals, some of these Departments made joint offers; among the small groups concerned here, we can highlight that made of the Departments of English, from the French-speaking Subsystem, and of the Department of English Language, from the English-speaking Subsystem on the one hand; on the other hand, we have the small group made up of the Computer Science Departments respectively from the two Subsystem; Finally, we have the cluster formed by the Departments of

Table 1. The proposals for quarterly themes made by the different Pedagogical Departments eligible for the interdisciplinary approach

	Group 1		
	First quaterly themes proposals	Second quaterly themes proposals	Third quaterly themes proposals
Mathematics	Food self-sufficiency and management of available resources	Development of projects (management of space in agriculture, development of roads)	Conservation of materials / design of packaging for some products (soap, sugar, etc.)
Geography for french speaking subsystem	Preserving the environment from the climatic hazards of the century for a promising African economy	The consequences of galloping industrialization on large cities	The fight against natural disasters: everyone's business
Life and Earth Science, environmental Education, Hygiene and Biotechnology	The place of matter in human life	The sustainable development of the human body	The complementarity between man and his environment
French for the french speaking subsystem	Traditional values	Management of the environment and projects in a young environment	Health and ICT in a young environment
Religious studies (both for the English and French speaking subsystem)	Jesus Christ at the heart of Christian initiation for the salvation of man	Healing from wounds for harmonious relationships with others	Knowledge of oneself and of the other, a necessity for responsible sexuality
German	Human well-being on a daily basis: health and living together	Respect for laws and promotion of small businesses	Good use of NICTs
Spanish			
Chinese			
Physics, Chemistry, and Technology for french speaking subsystem	The conservation and transformation of matter	Long-term use of a mechanical, electrical or electronic device without destroying the environment	The protection of the environment at the center of the production and management of chemical compounds
Biology	Appropriating knowledge of life and life forms	improvement of reproductive health, nutrition, sensitivity, and movement	Management of natural resources
Physics	Investigating Science and Scientific discoveries	Energy needs to human and the society	Human activities and their effect to environmental changes
Chemistry	Matter properties and transformations	F1 : Water and the methods of purification F2: Air and its composition	F1 : Acids and bases, elements and compounds F2 : States of matter, action of heat and electricity on substances
Anglais (French speaking subsystem)	Daily life and its challenges	Our environment, a vital source of well-being	Our rights and duties as good citizens towards one another

Group 1			
	First quarterly themes proposals	Second quarterly themes proposals	Third quarterly themes proposals
English Language (English speaking subsystem)			
Geography (English speaking subsystem)	The impact of our daily on the environment	protect the environment in other to benefit from it	Difficulties in protecting our natural environment
French (English speaking subsystem)	Observer des règles communautaires de vie pour plus d'hygiène et de salubrité	Développer le patriotisme dans le monde des affaires et le métier choisi	Décrire et utiliser judicieusement des gadgets des TIC et participer à des programmes radio/TV
Mathematics (English speaking subsystem)	An estimation of school expenses for year 1 in secondary school	F1: Description, recognition, representation, production, and transformation of plane figures and our environment F2: recognition, transformation, production, and determination of measures of plane shapes in our physical environment.	F1 usage of technical objects in everyday life, production of models and determination of measures of objects. F2: organization of information estimation, data collection, and decision making.
Computer Science (English speaking subsystem) Informatique (French speaking subsystem)	Managing computer resources with restrictions and safety	F1: making use of appropriate peripheral devices to do diagnose and treat patients in hospital F2: Management of patient's consultation file and record	ICT as a major tool for sensitization against smoking and drugging among young people in Cameroon
Average quarterly themes for the Group 1 Pedagogical Departments			
	First quarterly theme proposal: wellbeing and challenges on the daily basis	Second quarterly theme proposal: Environmental protection and Health promotion on the daily basis	Third quarterly theme proposal: Technological improvements, interculturality and inculturation for a better integration of young people in the modern world
Average quarterly themes for the Group 2 Pedagogical Departments			
	First quarterly theme proposal	Second quarterly theme proposal	Third quarterly theme proposal
History Language and National Culture Music Drawing	Disintegration of African cultures from the slave trade up to today	The Cancelling of barriers in view of the promotion of the Pan-Africanism	The impact of scientific and technical progress on human life

Chinese, German, and Spanish (Table 1), all from the Francophone Subsystem. Also, quarterly, there was a strong similarity between the suggestions made by several of the different Pedagogical Departments (Table 1). This observation highlights the need for the Pedagogical Departments within secondary education establishments in Cameroon to work hand in hand, and therefore to move away from the autarky that has always existed between them as specified by [19]. We are therefore entitled to note the skill of [12] who, in carrying out the evaluation of the impact of the implementation of the interdisciplinary evaluation system in certain secondary education establishments in Cameroon, raised many points positive at the level of the various targets. This shows that the different subjects are designed to support each other in the formation of the student. If we then refer to [16], this observation fits perfectly with the concept of interdisciplinary.

For Group 1, the themes designed per quarter (Table 1) are:

- Well-being and challenges on the daily basis (for the first trimester);
- Environmental protection and health promotion in daily life (For the second trimester);
- Technological improvements, interculturality and inculturation for a better integration of young people in the modern world (For the third trimester).

Three major moments stand out here. From the outset, we shed light on the daily needs of man, as well as on all the efforts he must make to obtain the things he needs. It is undoubtedly in this order of idea that [20] declares that life is a fight. Then, we fix the attention of the young community on the importance of environmental protection while noting the impact of this responsible act on the health of humanity in the current planetary context, marked by a continuous degradation of environmental components in response to different human activities. This is all the more important since [21], presenting the environment as the branch on which man is permanently seated, declares that polluting it means to be permanently sawing off this branch which often carries him. [22] end this representation by simply developing the planetary concept of sustainable development. By emphasizing the undeniable link that exists

between the state of the environment and human pathologies, we can, for example, note the cases of cancer of the digestive tract which are, among others, linked to the presence of nitrates leached in water as shown by [23,24], generated on the one hand by the abuse of synthetic fertilizers of the nitrogenous type. Following this example, we can emphasize on the epidemics in full advance of malaria; [25] correlates this situation with the increasingly deplorable management of household waste, as shown by the increasingly frequent piles of garbage in many towns in countries south of the Sahara. Moreover, in view of the galloping depravity of morals as now noted in Cameroon by [5], the need to reconcile young Cameroonians with their cultural roots arises acutely. Indeed, it is a question here of bringing the young person to realize that by his own means, the gadgets resulting from new technologies can serve them better if they are more interested in their origins and what makes their identity. In this sense, [26] sheds light on the subtle marks of damages caused by colonization in countries south of the Sahara. From these logically, rose the third target: Technological improvements, interculturality and inculturation for a better integration of young people in the "modern" world.

For Group 2, the themes designed per quarter (Table 1) are:

- The disintegration of African cultures from the slave trade to the present day (for the first quarter);
- The Canceling of barriers in view of the promotion of the Pan-Africanism (for the second quarter);
- The impact of scientific and technical progress on human life (for the third quarter).

A finding emerges here. Indeed, we can see a clear break in the themes built for the first two quarters when we move from Group 1 to Group 2 (Table 1). This makes it possible to identify a kind of autarky between the two groups of Pedagogical Departments, as has always been feared by [5]. But, in the third quarter, we see a perfect possibility of overlapping between the themes of the two groups of Pedagogical Departments. We can then say here with [16] that the possibility of the integral interdisciplinary vision is impeccable if we consider the contents of the programs of the various Pedagogical Departments concerned by this project within the framework of the work to be done as

programmed for the third quarter. Such a situation then makes it possible to consider with [5] the possibility of rethinking the teaching programs in force in Cameroon. In this sense, in fact, the author proposes that promising themes be put in place beforehand. Then, he suggests that the different Pedagogical Departments get together around each of these themes and then produce respective content which, moreover, put together, can promote training in an integrated vision of the students.

This could then be the launching pad for Cameroonian culture as the engine of its development if we refer to the analyzes of [27]. From this observation, we can represent the quarterly themes of Group 2 as follows:

- The disintegration of African cultures from the slave trade to the present day (for the first term);
- The Canceling of barriers in view of the promotion of the Pan-Africanism (for the second term);
- Technological improvements, interculturality and inculturation for a better integration of young people in the "modern" world (for the third term).

As for the second group, from the beginning of the school year, there is an emphasis on the disintegration of African cultures from the slave trade to the present day. It is a question here of keeping permanent in the minds of young Cameroonians that they must embark on the discovery of what once constituted the way of life of their ancestors; in this sense, [27] emphasizes the place of culture in the economic development of a human community. It is probably because of this that [28] thinks that the story as presented by the settler may not be the reality. This theme is followed in the second quarter by another issue which is just as relevant; in fact, it calls for the removal of borders of any kind with a view to promoting Pan-Africanism. It is a question here of keeping alive in the minds of the youth that the whole African community must come together around a single ideal; this is consistent with the expectations of various African Pan-Africanists as shown by [29]. The third theme, common to both groups, then comes to unify the strengths of the different Pedagogical Departments eligible for the project with the aim of showing that the use of products resulting from technological advances following efforts of inculturation and

interculturalism is the only guarantee of the exit of the countries south of the Sahara from the tumult generated by the concept of globalization as presented by [30]. Indeed, African youth, already weakened culturally, was simply thrown into the tide of cultural novelties, not always well identified by Africans according to [31]. The various deviances experienced in young people today say a lot about the issue, as demonstrated by [32,33].

4. CONCLUSION

At the end of this study, we see that the desire for some Pedagogical Departments to work in synergy as well as their difficulty in agreeing on the themes responsible for guiding the quarterly evaluations is real. The themes designed for the first group of Pedagogical Departments are as follows: Well-being and the challenges of daily life for the first trimester; environmental protection and health promotion in daily life for the second trimester; Technological advances, interculturality and inculturation for a better integration of young people in the "modern" world for the third trimester. Regarding the second group, the themes are as follows: The disintegration of African cultures from the slave trade to the present day for the first quarter; The removal of borders in view of the promotion of Pan-Africanism for the second quarter; Technological advances, interculturality and inculturation for a better integration of young people in the "modern" world for the third trimester. The possibility of rebuilding the contents of the programs of the various Pedagogical Departments around previously constructed themes remains possible in Cameroon; it is the pledge of a training strongly rooted in Cameroonian culture, seen here as the springboard for economic growth.

5. RECOMMENDATION

The themes proposed here are topical; we can apply them as they are, or before, make small adjustments according to the context. In this sense, they are welcome wherever autarky reigns between educational departments, as well as in all countries with a multitude of tribes, among others.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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Peer-review history:
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