

The Mooc is a Mighty Lever of Development to Professional Competence of the Teachers of Higher Institutes Regional Than Applied Technologies in NTIC to the OFPPT

Yalid Amal¹, Talbi Mohamed², Gonegai Abdelkader¹, Hanoune Mostafa¹

¹(laboratory of information technology and modeling, Faculty of sciences Ben M'sik Hassan II University – Casablanca, Morocco)

²(Laboratory of Physical Chemistry Analytic, Ben M'Sik Faculty of Sciences Hassan II University of Casablanca, Morocco)

Abstract: In this article, it is about raising a state of the places of some platforms operational e-learning concerning the professional formation, and to propose some solutions as for their improvements. Indeed, the relevance of the teaching practices and trainings, by MOOCs (Massive Open Online Course) requires the collaboration of content experts, of pedagogues, of analysts and inventors programmers and the ergonomic. Because a course e-learning, to be efficient must take as a basis on a precise and exact diagnosis permitting to define the needs in term of formation / training, to identify the problems through a detailed and critical analysis in order to be able to propose adequate solutions. For that to make, it is necessary to be inspired by known development methods in software genius specifying a cycle of life for these platforms and assuring their corrective and adaptive maintenance. As for the contents, we propose that they must be conceived in an approach curricular putting the accent on the formation by alternation professionalizing (convenient / theory / convenient), that rests on " a project of formation putting the accent on the backing of the process of professionalization of teacher's profession in professional expertise of reflexivity while exploiting elaborate NTIC and pursued in a collective and transverse manner by the teaching staff in a mind of guidance, constant collaboration, communication, connectivity and interactivity. What is going to contribute to integrate a diversity of educational devices more interactive and satisfying through the courses of a program of analysis of practices of the educational activities personalized a lot of contextualizes if need be and personalized (professionalization of the formation course), in order to meet the expectation on the one hand and to the needs of the adult learners and on the other hand to enroll to the new educational norms of formations academic Moroccans (Referential of the skills of the teachers).

Keywords: Formalization, conceptualization, E-learning, engineering of formation and competence, Mooc, methods of analysis, interactive pedagogy and theories of the connectivity, Interactivity, Numeric environment of training (NET), educational Innovation.

I. Introduction

Entered it in force of the national charter of the education and the formation 1999 in Morocco that attaches a fundamental importance to the improvement of the quality of the system Education - Formation" lever 7" and the academic educational innovation^[1]. She/it doesn't stop protesting the revision and the conception of the modular programs and the varied educational methods and varied allowing every adult learner thus to capitalize and mutualize expertise acquired in a social other domains of activity. In the same way the optimization of the educational resources and the modern technologies (NTIC new technologies of information and the communication and mainly concerning continuing education).The new norms educational academic Moroccan who recommends the integration of the NTIC in the degree course of formation of the establishment's superior. One is therefore in a specific formation context very different from this him of the secondary qualifying because one doesn't have any more bustles exclusively to a teaching traditional presentiel and standardized, But adds us confronted to situations of collaboration and interactivity of big diversity and complexity. The manner to approach this new mixed formation device is tributary of the consideration the specific techno-educational measurements that are opened effectively to the different adult learners where there is emergence a big margin of autonomy, liberty and responsibility in the co-construction of expertise. We will be brought in this setting to drive well and to manage these platform to create the favorable conditions of trainings. We will also go up that the conception of programs them of formation professionalizing more varied centered on the principle of alternation (convenient. theory. convenient) while privileging the gait of resolution of complex and unpublished problems and the gait by inductive investigating. We also propose an adapted educational design prototype and supple permitting the development of a practice conscientisant and actualizing.

Strong of this report, The problematic of this research survey answers ex to the question of how to contribute to the development of the professional expertise of the teachers in the setting of a community virtual collaborative. We kept it, because he/it seemed interesting to us of mutualize and capitalize this return of experience. This new approach of formation of community of teachers as a course open processioning, or MOOC appears in a national strategy of accompaniment of the learners adulate in the conception of their professional action course. Our work of research brought us to fear the activities of conception in the device of formation destinies to the teachers. We emitted the hypothesis that a gait based on an analysis crossed of the real needs of the teachers and the instrumental requirements of the multimedia support, could contribute to the quality of the formation. We achieved a modelling of the objects of studies and the educational activities recommended. The object of survey is based on a functional analysis of this process according to the paradigm process – product^[2]. This paradigm prescribes a rigorous methodological gait to reach the waited objective. In a first time he/it describes a level abstracts and epistemological the manner to organize the production of the deliverable immaterial: the stages of conception and the educational activities personalized that they compose, their organization. He/it also puts the accent on the terms of references, the criteria and indicatory of assessments. In a second time the process to search for is put explicitly in relation with the analyzed (The referential of expertise wished) model products.

The objective of this research work is to bring elements of concrete answers to the integration and to the conception of a MOOC in the process of formation of the teachers that permits operationalize the principle of formation by alternation. The topic being vast, this work doesn't have the pretension to approach the topic in all his/her/its measurements. He/it has for essential object and more limited, to define the axes of research and the perspectives of professional development of the teachers. The adopted experimental gait permits to renew therefore and to widen our educational offer while making a mediatized device opened like vector of numeric transformation of the higher education professionalizing while proposing devices adapted from afar to the formation, while personalizing the educational courses. This shape of teaching aims in Virtualize the objects of training and to formalize tools of tutoring of the activities.

II. The Review of Literature

The technologies of information and numeric communications don't stop occupying a growing place in the formation of the teachers: numeric manuals, software, Learning games, e-learning, Learning blended, MOOC, reversed classes, etc. The setting of reference that served to the analysis of this survey consists mainly of the analysis of the different aspects of the process of formation of the teachers in the devices of on line open formations. The object fundamental of research is the continuous improvement of the conception of the activities educational in this computerized environment. The specificity and the complexity of this teaching support requires for the survey a theoretical conceptualization that is going to permit to specify the objects of study and the variables of research. The theoretical setting recommended for the present research is a modelling to orientation object of the act of professional formation conceptualized from research process. Product. The retained variables: omen, program, context and product organize themselves around the variable central process (cf. shemas 1). The main retained methodological principle was to analyze the four elements of the survey model and to deduct the variable process of the system" objects of study. Educational Activities" corresponding. Methodology preconized

III. Methodology preconized

Between contingency and choice, between description and conceptualization of the professional sessions of formation of the teachers, this analysis exploratory and prescriptive appears truly in the reflection of [Jean Paul Sartre]^[3] when it says "the man is characterized above all by the overtaking of a situation, by what it succeeds in making what one made it." The questions of the technological innovation pedagogies in the higher education ask a methodological order question: done the introduction of the device mediatize virtual like powerful lever of development of the professional expertise it must again to be to conceptualize from the specificities of the teachers? Or he must to take counts the instrumental requirements of this virtual environment of it? What recommendation is necessary - it to put in terms of educational options and appropriation of the device by the students. The complexity of this process of conception and modelling of this programming to orientation immaterial deliverable object": MOOC is the subject of a methodological gait of cohabitation of two distinct approaches but complementary. The first fact references to the "Cartesian" steps: linear, sequential [BISSERET, (1987)]^[4] whose goal is the decomposition the object curricular of the conception of the teaching platform relocated open on line. These different objects of study and simple educational activities are formalized separately according to the result of the analysis of the gait process - product, then united again in a prototype of design educational synthesis. The second milked to the systemic steps [OF ROSNAY (1974)]^[5] propose modeler these activities of instrumentalisation in order to bring the knowledge on the organizational reality of the MOOC.

Of this conceptualization stage is consisted in the sense of the dynamic interactions organized enter the objects of study according to the terminal objective of integration OTI development of the professional expertise of the teachers. The participants: The sample targets has been constructed after the uncertain sampling phase. She/it constitutes formative OFPPT descended of the formation of the professions of the framing and the formation mainly. The objectives of the participants were varied and were varied. For some to acquire and to develop their complementary professional expertise, for others, to be able to exchange the professional experiences inside a community collaborative of training, of the restitution of their activities of the professional context or production of independent transverse thematic news of the course (to optimize and to personalize in depth the professional trainings).

N°1 Grid: Model of Intervention of the Open Device Integrating the Variables Of The Paradigms Process Produces.

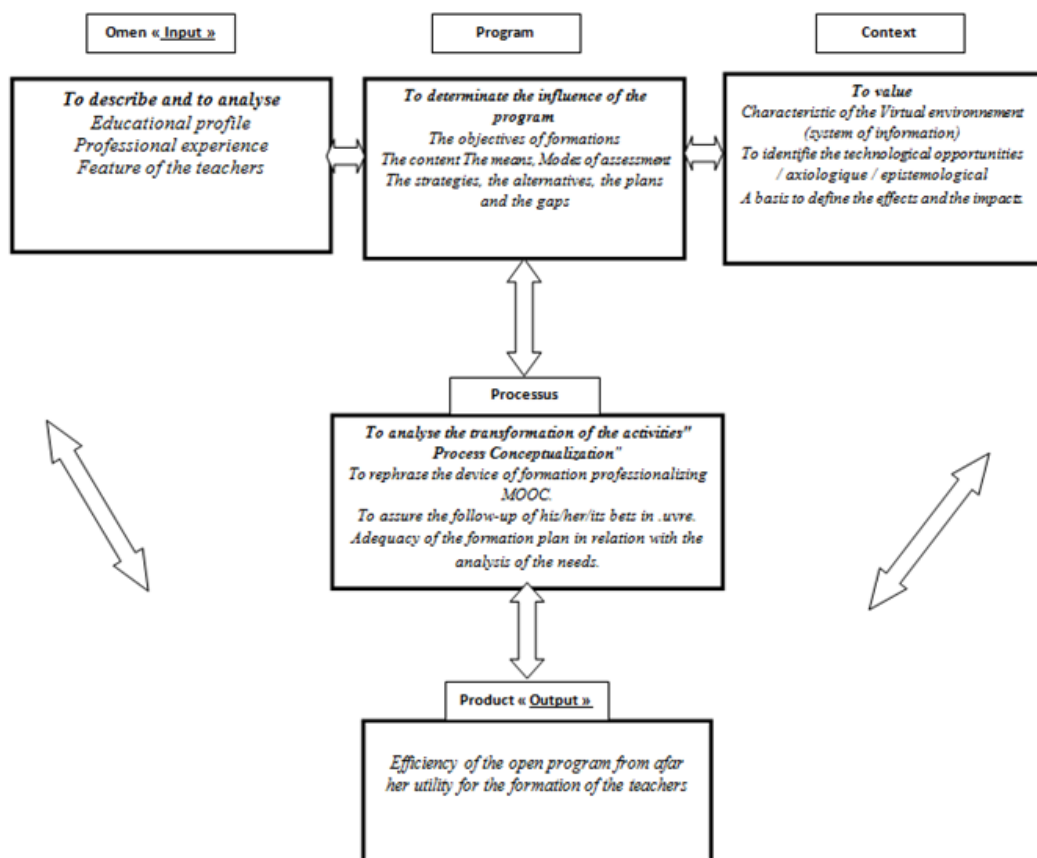


Table N°1: Educational profiles of the teachers and Their Professional objectives

pedagogies Profile	Age	Sex percentage of the women in relation to the men	Objective's personal of formation (personal (A) or professional (B))
BAC+2	Between 28 et 46 old years	W = 42%	23% A & 87% B
BAC+3	Between 22 et 29 old years	W= 38%	40% A & 60% B
BAC+4	Between 25 et 38 old years	W= 46%	48% A & 52% B
BAC+5	Between 28 et 51 old years	W=56%	68% A & 32% B
BAC+8	Between 32 et 55 old years	W=60%	68% A & 70% B

Questionnaire N° 1:

Questionnement to the teachers number of 109	Answers
Q1. The courses of the flat form open from afar, of her principles, her organization and her objectives of formation prenent - them in account your needs, your waiting and your professional preoccupations splicing that teacher.	90% : the needs are not translated and converts in objective of formation via the platform
Q2. the nature of the course and her séquencement recommended in the MOOC platform she to write you down in the process of development of the professional expertises permits	95% : some answers are negative (model informationel without report with an engineering of the needs
Q3. the conception and structure of the course guides t-him the use of the platform in a simple and accessible manner.	98% : simplicity and easiness of the utilisations
Q4. The choices of resources and the educational activities and training	90% : shift enters the content prescribes and the

are sufficient - them to create a real deepening and reflexive return on experience in this computerized training environment.	reality of the professional practice.
Q5. The contributions and the productions of the teachers they exploit in the Co-construction of the professional expertises in the MOOC platform.	23% : insufficient contribution limits itself to the level of the forums of discussions (Absence of the guidance educational community - formed).
Q6. The principle of the formation by alternation (convenient. theory. convenient) is - it respected in the programming of the activities pédagogiques within the MOOC platform.	26% : limit himself to the discussions forum.
Q7. . Is the didactic and educational activity rhythm adapted according to expertises of formed them?	85% : the educational activities are below the real expertises of the teachers
Q8 : are the done propose courses - them optional and adapted to the level of the participating" personalisation of the courses?"	87% : estimate that the courses of formation proposed are general and transverse
Q9. the forums and social networks of collaboration and connectivity in relation with the problematic professionnelles and the incidental diadactiques are structured .	93% : the problems treated formalized little and systematized in strategies rational of formation and research action.
Q10. The participants have them a margin of maneuver to make propose the thematic in the setting of this formation in line.	97% : the content of formation to caractère too prespectif.
Q11. The objects of study proposed are them transversal / and or specific; In report / and or with the referential expertise profession	90% : the proposed course is transverse and present a weak relation with the referential of expertises exigible.
Q12. The educational community is. it sufficient for quality and the relevance of the efficient accompaniment (intelligent guidance - auto-management))	96% : Absence of the efficient and applicable (intelligent guidance) accompaniment.

Commentry :

The variable foretells: Gait recommended (Questionnaires directive and semi-directive). The analysis of the features of the teachers is founded on the identification of the meaningful variables defines after uncertain sampling follows: experiences - profiles. Needs perception. Representation - attitude. Opinion 'efficiency of the teaching mediatized in the professional development - values. Objectives" Management of the career; Personal development; Emancipation "- preferences. Interests; investigations - personal experience - lived - styles - of preferential professional trainings in the context of on line open formation. Notably the one relative to the criteria The variable foretells concerns the features of the teachers (their initial formations, their professional experiences and their socio-professional or personal objectives of development) capable to influence manner from afar very meaningful the process of open professional formation. The variable produces refers to the effects and the impacts of the devices relocated virtual on the development of the professional expertise of teach them. The variable process relates to the different modes of connected, of communication, collaboration and communal interaction (guardian. teacher. teacher. multimedia environment). In an explicit manner this variable explains what happens in this device opened during the educational action. He it puts the accent on definition of the objects of study and the educational activities. The variable context corresponds to the instrumental requirements of the Mooc platform. He/it constitutes a variable independent of the teachers, but requires a big flexibility and adaptation of these last for a real training and transformation of their experience.

The variable programs makes reference to the analysis of the objectives of formations, the content, the strategies, the steps, the educational methods, the tools and the techniques of animation and the modes. He/it depends on the decisions of the inventor of the platform regardless of the formed actors. This gait of research Process. Product organizes itself author of the curls" Description. Interrelationship. Experimentation. «She/it permits to describe with precision the on line formation process, to identify the nature of the inter-variable interrelationships and to measure their impact on the development of the courses academic professionalizing.

IV. Conclusion

In the domain of the formation the ambition of this research survey is to show that some numeric technology can contribute efficiently to improve expertise, in dynamist the contents - program, while accentuating the incentive of the adult learners, while proposing devices adapted on line open and massive, while personalizing the educational courses professionalizing. The complexity of the development of the reliable and supple MOOC that permits to treat the problems of professionalism requires the use of methods of analysis, conception and realization of the deliverable adapted. The steps of descriptive analyses and explanatory recommended in this survey of research demonstrate the applicable stake to integrate the MOOC in the development of the expertise of the teachers. If we will focus our reflection again on the conceptualization of a real MOOC as basis of a central course of our initial teaching, we had the multiple constraints that demonstrate the feasibility of this other mode of formation. If the different approaches of formalization and operationalization should be refined. It is about proposing the model of engineering of devices of formation of the teachers based on the educational object concept - training. Our gait of conception aims a simultaneous engineering of proceduralisation of the objects and the educational activities professionalizing. This conception

brings us to work according to the convenient paradigm". Theory. Convenient ". This orientation will be the crossing of the instrumental data of the MOOC and the referential of expertise waited while passing by the analysis of the needs. The fact to conceptualize some courses on line and massive to the teaching body constitutes a new value added notably for the offer of the formation of the professionals in the change, the innovation of the formation program, but also the proposition of the new modes of work organization to compensate the insufficiencies and the constraints of the teaching presently.

The analysis of the different variable " omen. Context. Program. Process. Product" permits to put in light the importance of the appropriation of the MOOC that governs the educational and didactic design clearly visible and explicit. The contextual conditions of organization and accompaniment of the course president to the process of conception encourage a dynamic collaborative and interactive of the different actors implied in this process. It is well about seizing the opportunities offered by the MOOC, in terms of formation, visibility, interactive collaboration, educational renovation and professionalization. The goal of the present article is not to propose a diagnosis of these on line courses, nor even a diagnosis of the

Platform in general, but to focus me on a course of statistics proposed on one of the biggest world MOOC to show what the educational methods proposed in this one have innovating, to explain the interest and the possible limits of it. The activity of conception of a program of formation of the professional in the MOOC device is analyzed as complex process, putting in stake of the steps, of the methods and various tools. In this context, the risks of dysfunction of this process are important. The consequences of these dysfunctions result in the failure to respect of objectives of cost, delays, and quality. The management of these risks being part of the mission of a project chief, the setting up of the quality in conception must pass, to the picture of the quality in production, of the concept of control of the result (the definition of the product) to the mastery of the process (the management of the project). The process of Conception of New Products is modeled in order to understand and to act on his/her/its dysfunctions. This model of process is validated then on several projects of conception of New Products. These experimentations describe the complexity of the project management. They allow us to make take out again the motor aspects of the quality in the management of the triplet "produces / project / environment" as well as the lacks and the improvements possible of the gait concerning mastery of the risks. They demonstrate in particular, the necessity to master information all along the cycle of life of a product. This analysis allows us to propose a new concept of management of the risks project, containing a global method of management of information and tools that we called "TO.P.R.Project" and "To.M.D.E.C. Project", extrapolated of the techniques of Working Safety. We define this concept, his/her/its field of application, his/her/its methods and tools, his/her/its advantages and its limits. A validation on cases of industrial projects is proposed. We finally consider axes of research to develop this method.

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