Distance learning during the pandemic: which effectiveness?

التعلم عن بعد خلال الجائحة: أي نجاعة؟

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Abstract:

The present paper attempts to evaluate the practices of distance learning as experienced by members of the pedagogical couple (teachers and students) within universities during the Covid-19 pandemic. What we believe is at stake is less the different formats this teaching has taken, but whether at the end of the experiences, teachers and students can say they are satisfied with the digital work done by gauging the level of effectiveness of the new practices. It is through semi-structured interviews, that teachers and students were able to give their opinion on the effectiveness of the new methodology. Effectiveness here is considered as the success of the complementarity and balance between mediatization and mediation, i.e., the two facets of distance learning, each of the partners was able to experience during this exceptional Covid-19 pandemic period.

Keywords: Covid-19, Distance learning, effectiveness.

الملخص:

تحاول هذه الورقة تقييم الممارسات المتعلقة بالتعلم عن بعد، التي شهدها الثنائي البيداغوجي (معلمين، طلبة) على مستوى الجامعات خلال فترة جائحة كوفيد 19. نعتقد أن الأمر الخطير يكمن في مختلف الصيغ التي تشكل فيها التعليم ولكن بعد الانتهاء من تقييم مستوى الفعالية في الممارسات الجديدة تمكن المعلمون والطلبة من خلال المقابلات الشبه هيكلية من إبداء رأيهم حول نجاعة هذه المنهجية. تعد هذه النجاعة نجاحا في التكامل والتوازن بين الوساطة والتوسط، بمعنى آخر من خلال التعلم عن بعد بوجهيه تمكن الثنائي من التعايش خلال هذه الفترة الاستثنائية من جائحة كوفيد 19.

الكلمات المفتاحية: كوفيد 19، التعلم عن بعد، النجاعة.

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Introduction:

The Covid-19 pandemic has taken people totally unaware, worse pedagogically unprepared because of the kind of technical and didactic response that was imposed by the very nature of the sudden health crisis. All educational institutions have therefore been forced to offer different patterns of distance learning (through TV programmes [for schools], Internet, Facebook, or by emails) to their learners. Consequently, the context of our analysis is the Algerian university as a whole and how they have responded in order to meet students' needs and in the aftermath of the health crisis, and ultimately how they have fulfilled the institutions' pedagogical mission. The issue that is discussed here is the level of effectiveness reached through distance learning as practised by teachers under the pressure of local authorities (deans of faculties and rectors), despite the pedagogical and managerial reality of the university institutions. What has transformed the teaching/learning pattern was on the one hand, the delocalisation of conventional training spaces (from universities to homes), the amount and quality of interactions/communication (trainers/learners), the use of and recourse to mediated resources, henceforth in a digitalised form, and on the other hand, the management of the pedagogical time that has become a constraint.

The methodology applied is threefold: use of semi-structured interviews, a literature review to define concepts and finally analysis of the narratives[*] developed by a number of practitioners who have gone through different levels of difficulties depending on the availability of human and technological means. What is contested in the present paper is that the mere mediatisation is systematically taken for granted and supposed to yield better results. It appears to be self-sufficient and can address large cohorts of students, but also the interactions between mediatisation and mediation in order to increase the effectiveness of the digitalisation of the pedagogical act. Against

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[*] The number of conferences, at national education and higher education levels, has never reached that high. The number of Zoom, Google Meet, Google Classroom national and international conferences is incredible.

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this trend, the present paper will oppose the concept of mediation structurally embedded in all types of human interaction (Couldry, N., 2008). Nevertheless, mediatisation induces a set of activities and tasks that are planned, imposes a methodology, suggests the use of a type of pedagogical tool to be used, pre-empts the form, intensity and type of interaction and evaluation envisaged by teachers, and foresees the quality of change/learning of the recipient of teaching.

In order to proceed to the evaluation of the effectiveness of a number of distance learning experiences, it is important to define what is meant by the notion. First, from the literature, one has opted for the term of effectiveness, very often opposed to two concepts: efficacy and efficiency. None of the latter notions has been used because, our idea is not to study the level of performance when the lowest amount of input or resources is used (efficiency) nor analyse the ability to produce a desired or intended result about the pedagogy developed during the pandemic (efficacy). Effectiveness is therefore our hypothesis against the issue of distance learning. It is a key concept in the study because, it was felt that what was at stake was the degree (the highest) to which distance learning is successful in producing a desired result (convey knowledge to students in the best way possible) and at the end of the day, provide adequate support to the learners to reach success despite the change of the teaching/learning format.

The point of departure of our analysis is Vygosky's vision of success as the outcome of collaboration with one or several pedagogical partners. In this analysis the human environments as well as the social relationships are considered as invariants of the learning process. Furthermore, one insists on the necessity to bring to the fore a social dimension because of the absence, at times, of in-person classes to help all partners to learn/teach through and adapt to technology in a balanced manner (in-person vs. virtual learning sessions). In order to proceed to the evaluation of effectiveness of all procedures, it is necessary to define first what is meant by effectiveness in the present reflection.

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Literature review: effectiveness

Languages offer a wealth of possibilities when one goes deep into deciphering every nook and cranny of terms like effectiveness. Perusing through dictionaries and thesauruses, one has come across a number of nuances that give pieces of meaning that show the depth and scope of the term. One has used non specialised dictionaries because of their over-nuanced meaning. Instead, the Cambridge dictionary gives as equivalent two possibilities: either "*the ability to be successful and produce the intended results*" (U.S), or "*the quality of being successful in achieving what is wanted*" (U.K)(Cambridge Dictionary, 1995) Already apparent is the use of two opposing notions, that of ability in American English and quality in British English. The Merriam-Webster gives two definitions we believe to be complementary: "*the capacity to persuade*" and "*the power to produce a desired result.*"(Merriam Webster, 1828) As for the MacMillan dictionary, it posits that effectiveness is "*the degree to which something works well and produces the result that was intended.*"(Macmillan Dictionary, 2002)

Interestingly enough, one should admit that all definitions gathered together offer a panorama of all possibilities one considers as facets of the concept used in this paper. Terms like Ability, capacity, quality on the one hand are enriched by active verbs such as: produce, persuade, achieve, and ending up with qualifiers like: successful, intended, desired, well. The intended operational concept of effectiveness carries therefore all the scope and strength one wishes to use to evaluate the practices of distance learning at university level.

One considers universities to be effective only if they achieve measurable progress toward their broad aims (education) and their specific teaching objectives (during the pandemic and at all times). They become effective only when all stakeholders have access to all displayed resources – get enough of them and then use them to the full. Besides, the aforementioned actors (teachers and students alike) are motivated and cooperative. Consequently, such institutions are

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then able to successfully execute and achieve their core strategies (operational and strategic) and aims (in very broad terms).

One could go further in deepening the meaning of the term effectiveness by identifying a joint-reality of distance learning, namely mediatisation and mediation. The first one seems to address the glaring physical presence of technology, when it exists, and depends more on the institutions' realm of competence. Contrarily, that of mediation allows an external eye to judge what in the pandemic was lacking or not even addressed through mediatisation and mediation are two facets of the same reality that of distance learning.

Distance learning

Distance learning in the present paper describes all virtual teaching sessions and not-in-person learning classes. It is true that distance learning has evolved a lot in the world of technologies combining sound, with text and animated pictures. That has gone from the use of multimedia (TV and video) in full swing in the 1960s to the oft-mentioned ICTs, but rarely seen, to the ever-changing world of micro-computing in perpetual evolution: Internet, hypermedia, digital format, etc. Basically, training from a distance is a mediatised training format where both pedagogical partners are not physically in the same space. The teaching/learning format provides the pedagogical and technological means and devices and an organisational pattern (who initiates? Who provides knowledge/content?). Generally, distance learning is more often than not a complementary way of transmitting knowledge and competences. In 2021, this type of teaching is hoped to be widespread in universities.

Mediatisation

This process involved is within the domain of competence of the authorities' (political and educational) perception, will technological strength and financial capacity. It is the transformation of the old learning conditions to new ones that make room for mass-media in education. This concept describes the creation of a

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technological/technical environment consisting of the means for a mediatised training and teacher-student communication. It also concerns the organisation of the human-computer interactions and the elaboration of content-driven media (e.g., podcasts) that is central to this process in media conversion (from book form to digital pedagogical content starting from books, hand-outs, etc.). This is more in the domain of the training and instruction design. Mediatisation[*] (Schulz. 2004. P: 87-101) of traditional learning spaces, incorporates resources and processes that entail change thanks to the use of media of all sorts (from multimedia to technology) to create an electronic virtual learning environment, but very often without the technopedagogical skill. The aim of the afore-mentioned processes is to create environments for interactive training. A historical perspective reveals the slow movement of innovations in Algeria considering the speed of change and what is taking place worldwide. From the printed textbooks to the relatively new processes of mediatisation, Algerian universities seem to be missing an important phase, that of the book revolution because a majority of learners have not gone through the printed word during their studies. Not many students read entire books that are not in the programme. Even the swift passage to the virtual environment has not impacted enough would-be university learners. On the one hand, universities have developed strategies in favour of the installation and use of ICTs when in fact none, or very few, have experienced the virtual challenge. The creation of a virtual working environment has seen a strong share of the Web and the Internet technologies been developed. This movement has been key towards the creation of bi-directional communication patterns, allowing synchronous and asynchronous exchanges.

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[*] "the shaping and changing of education policy by the emergence of new forms of communication technologies". (Rawolle, S. and Lingard, B. (2014, p. 597)

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Mediation

Mediation (Silverstone. 2002, p: 745-764) on the other hand, is a process that includes both communications of meaning and cognitive and affective processes. Along this line, it is who Vygotsky has inspired a lot theoreticians as well as practitioners. Thus sprang the cognitive and the socio-cognitivist theories that have helped improve the learning and teaching processes. The focus on mediation is simply the consequence of the movement towards the emphasis on 'machinery' and the software to the detriment of what is ultimately humane in the teaching procedure. Educational mediation, the way it is understood here, is the vital lever that can act upon the way students learn and develop. Mediatisation is the process through which synergy is created by the teacher between learning and the digitalised subject content. Mediatisation needs a mediator and mediation. This triptych is the target any distance learning experience should aim at. This is necessary because mediated experiences help students construct knowledge in a less alien, hence less threatening, environment. While, this mediator is important as a carrier of knowledge, he is not the only knowledge-holder and knowledge-giver. Mediation seems then like the hidden part of an iceberg because it has to do with the cognitive attitudes the teacher adopts and on the other, the sentiment he triggers or raises in the partner because of his own expectations, not only between the student and the hard/software but also between him and his talk (circulation of speech between partners reducing teacher-talk to a minimum). The mediator often intervenes to explain the proposed learning situation in order to iron out all difficulties faced during the pedagogical activities. Besides, his role is to reinforce the affective component of the learning process, and thus increase the level of motivation. Further, he is the one who is in the position to manage intellectual or knowledge conflicts. However, mediation is not control by the teacher of the learner if only for the latter's self-esteem and self-actualisation needs.

In the context of universities, mediation has been felt as the weakest link in the chain of processes involved in distance learning

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during the 2020-2021 pandemic. One believes that mediation has a role to play that consists in:

- giving meaning to the unfamiliar learning situation and the activities proposed

- selecting the type of content that is needed to be adapted to the new media

- embodying a pedagogical and didactic intention, which is a two-way balanced exchange

- regulating the learners' behaviours, tasks and involvement.

- individualising learning (extra adaptability) to students' levels, competences, abilities, language proficiency, etc.

Mediation has been singled out because it allows negotiation between partners and provides opportunities for solving potential conflicts with the technological instruments or the dispensed knowledge.

The teacher as mediator

The hypothesis put forward in this paper is the low level of the teacher's involvement while helping students manage correctly the technology and the pedagogical content by introducing more humane actions, helping students overcome their despondency or sentiment of solitude in front of the machinery (admitted by a number of students during the interviews), giving a hand in the manipulation of the software. He is the only one who can intervene in order to improve the level, quality and intensity of interactivity. One believes that it is the teachers' responsibility to being the user closer to the machine. This is also a way to facilitate their rapport to knowledge often obtained in asynchronous exchanges, by organizing the learning situations that call for more collaboration, balanced interaction, increased abilities (cognitive, communicational and affective). The teacher mediates for

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better comprehension (by changing the systems of representations), stronger and more effective relation (controlled turn-taking and turn-giving sequences) and improved use of media (functional interactivity vis-à-vis the hard and software). That has not unfortunately taken place during the pandemic, a weakness acknowledged by both teachers and students. In fact, technology alone is a dead instrument, unless the users handle it expertly, aptly. In fact, what needed to be done was to improve the interactivity process with the technology impacting in this way the students' cognitive behaviours and their socio-affective attitudes. The mediator is known to be capable of using the students' zone of proximal development (Vygotsky 1978) between the actual state and the potential development predetermined by the training programme.

At this stage, one needs to scrutinise the mediator's profile, experience and level of training. Theoretically, mediated experiences help students construct knowledge in a less threatening environment. Thus, "*Learning improves when the mediator intervenes between whatever is being learned, the student and the response to the learning.*"(Ferguson, R. & Roux, C., 2003, p. 293). In the Algerian contexts, it is the latter dimension that has suffered the most: students' feedback. In the dire reality of the universities, most teachers were not only amateurs in the way they handled technology, they themselves lacked training and exploit technology as a user-friendly but difficult to handle means to reach higher level of success. The professional profile of teachers did not augur of better days and improved practices with technology.

The next step is devoted to the analysis of the context and the reactions of ten teachers[*] and fifteen students[•] from the English department in Oran, during the pandemic. The two groups of actors were questioned on their own practice and vision of distance learning. What was needed to be evaluated was the degree of effectiveness of

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[*] Teachers were from the same department.
[•] Students belonged to different MA cohorts with different specialities.

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the double-sided structuration of distance learning. The method used consisted of two semi-structured interviews based on five questions each. The same questions were kept but adapted to the profile of the respondent. A further division consisted of the evaluation by teachers of mediatisation while students were invited to react to what they could measure: teachers' level, intensity and quality of mediation as organised by universities.

Measuring effectiveness of mediatisation and mediation

Effectiveness has been selected from an array of types of assessment of distance learning: degree of satisfaction, efficacy and efficiency. Measuring effectiveness of the distance learning practices amounts to having two different approaches: one towards mediatisation (teachers' viewpoints on the matter) and the other in the direction of mediation (students' answers to the unstructured interviews). The effectiveness of mediatisation was checked through the responses provided by ten (**10**) teachers. These teachers unveiled in their interviews a number of failures and discrepancies. Thus, concerning the clarity of objectives (**Question 1**), a majority (6 out of 10) admitted that they were not clearly stated; though others said there were none (4/10). A minority added that the objectives were hardly reached (2/10). To the second question (**Q2**) about the assessment of the availability and quality of the technical apparatus, few teachers (3/10) had a positive approach to both qualities. However, a majority thought the contrary (7/10). But all respondents criticised the lack of a decent broadband Internet access. Furthermore, to **Q3**, a majority of teachers (7/10) complained about the quality of the digitalised content either because of the copy-paste practices (5/10), unreliable sources (4/10) and very little aural/oral exchanges (1/10). Question 4 (**Q4**) invited the respondents to give their opinion on the whole virtual work as practised during the pandemic. All teachers agreed that it needed improving, but also acknowledged the fact that the whole exercise is too demanding on the part of teachers. On the other hand, **Q5** aimed at the evaluation of students' technical performance, whether as individuals or groups, revealed that it was not satisfactory for the

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majority. Only a handful of students did perform adequately when facing the technological tools, very often the software.

As for mediation, a semi-structured interview helped evaluate the level of effectiveness witnessed. Fifteen (**15**) students had to answer nearly the same questions from a different angle, but from their viewpoint. As far as **Q1** was concerned, the objectives of distance learning were said to be unclear (12/15 students) because of the variety of modules not always adjusted to virtual learning, except that some (6/15) declared the necessity to carry on with this type of teaching even as a replacement to the traditional in-person learning. However, a majority amongst them (11/15) recognised that their teachers provided the necessary support (**Q2**). Others (4/15) admitted that teachers were not helpful. To the third question (**Q3**), a majority (13/15) considered their teachers' overall attitudes positive despite the fact that a couple mentioned, surprisingly, the teachers' laziness (2/15). All fifteen students had finally to qualify their teachers' interactions with them (**Q4**). A majority (11/15) judged them positively; some even added that the whole experience was good. As for the students' capacity to handle the technical aspect of distance learning (**Q5**), students did find it hard to face the technical and the pedagogical load of technology.

On the whole one can but acknowledge the fact that the whole enterprise had been effective from the dual point of mediatisation and mediation. More, it has been judged effective: i.e., it had produced results, and efficient: i.e., it has avoided loss or waste in producing nearly 'normal' classes and functioning along the lines of the much heralded pedagogical continuity. Even if one disagrees with this term. Normalcy is still to be developed taking virtual classes more seriously by providing all necessary equipment and pedagogical support, that were not always available everywhere.

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Conclusion

Can one then say that universities have been effective enough to lead students through the digital labyrinth in order to help them get properly delivered lessons approximated with real usual learning sessions? Many deficits to the inclusion of distance learning cannot help what has been considered as the panacea to rid the learning situations of the obstacles imposed by the pandemic. The gist of the present paper aimed at evaluating the recourse to the digital pedagogical response as practiced at university level, is successful or not in producing the desired, planned, intended, or expected outcome, thus guaranteeing the supposed pedagogical continuity. In fact, managerial as well as organizational effectiveness have been lacking in many of the situations investigated.

A question still begs to be answered. Which digital transformation Algeria is experiencing to allow universities to adapt to innovative methodologies? Universities are still lost between exogenous innovative learning pedagogies, scarce technological means, the everlasting administrative routinisation and its dysfunctional consequences. This is why their future depends not only on: "*Learning by doing, learning by adapting, learning by designing* [but also] *learning by innovating*" (Krause, 1989). It is the last two messages universities in this country should turn to. Easily said than done, but no country in the world is intent on being a simple follower. Nevertheless, designing and innovating must be tomorrow's rallying calls in the realm of education.

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