Research article

Teaching practices based on the competency-based approach

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Abstract

The competency-based approach is crucial in the teaching process. It requires not only a change in the curricula but also in the pedagogy and practices of the pedagogical actors. The objective of this work is to analyze teachers' practices to understand better the complexity of the role of the trainer and its impact on the problem of skill acquisition. This is a descriptive study with an analytical aim. The study population comprised permanent teachers from the Higher Institute of Nursing Professions and Health Techniques of Rabat. Data collection was done using a questionnaire. Numbers, relative frequencies, and averages were analyzed using the SPSS version 20 program. The study aims to analyze teaching practices to understand better their role in acquiring competencies according to the competency-based approach. The study's results showed that the average age of the study participants was 34 ± 3.8 years, and almost half of them (48.29%) had a long teaching history. In their practice, half of teachers do not plan their lessons according to the CBA. A percentage of 43.10% of teachers say they link theory and practice to attain and integrate skills and specify that they diversify teaching and learning activities and methods. Complex situations are sometimes created by 34.48% and often by 22.41% of the participants. The negotiation and creation of projects are sometimes practiced by 37.93%. Also, 24.14% of respondents always consider the learners' previous knowledge when developing new learning. Only 34.48% of teachers ensure that information and communication technologies are always integrated into teaching and learning activities. The main difficulties reported by teachers in the practice of the competency-based approach were the absence of a competency-based curriculum, the lack of training on the competency-based approach, and the non-adoption of active pedagogy due to a lack of materials and logistical means (37.5% and 29.17%, respectively). The competency-based approach allows for developing and training health professionals. However, its implementation and success depend on establishing the conditions inherent in its application, and the Department of Health should act in this direction.

Keywords: Competency-based approach; teachers' practices; principles of the competency-based approach; Higher Institute of Nursing Professions and Health Techniques; Teaching process.

Abbreviations

CBA: Competency-Based Approach.

OBA: Objectives-Based Approach.

HINPHT: Higher Institute of Nursing Professions and Health Techniques.

HINPHTR: Higher Institute of Nursing Professions and Health Techniques of Rabat.

ICT: Information and Communication Technologies.

1. Introduction

Education is essential in developing the nursing profession through nurses' scientific advancement and personal development (McMurray, 2022). Indeed, the competency-based approach CBA is a pedagogical approach focused on acquiring concrete professional skills and developing in the learner the knowledge, interpersonal skills, and know-how necessary to meet the requirements of the world of work (Harouchi, 2010). Also, the CBA is revolutionizing training by focusing learning on action and providing increased visibility of the skills acquired for learners and external evaluators (Romainville, 2006).

For decades, The Moroccan education system has been adapting to new challenges by implementing curricular reforms that place the learner at the heart of the act of

learning, thus offering him the keys to building his learning path. In this context, since 1996, in collaboration with Canada, Morocco has adopted CBA to develop its training programs (EL ATTAR, 2012).

In the same vein, institutionalizing bridges between the various cycles of education and training is one of the seven levers for quality for all in education; indeed, in the context of a training course in a sector or bridges, each stage aims to learn and master a set of skills (AHAJI, 2022).

Although the objective-based approach has improved academic outcomes, it has limitations. Indeed, it fragments the content, does not sufficiently value the learner's contribution, and favors the transmission of knowledge rather than its construction. This model does not adequately prepare students to use their expertise in a professional situation (Parent et al., 2012).

Health training must be considered a continuous process of adaptation to developments. The education system must be flexible enough to quickly integrate the new knowledge and skills professionals require (Hussherr and Hussherr, 2017).

Applied in nursing and health technology, the CBA has the advantages of developing a broad vision of the problems, knowing the elements of risk, allowing informed reflection on situations, and promoting decision-making (Tremblay, 2014).

Based on these observations, this study analyses teaching practices to understand better their role in acquiring competencies according to the competency-based approach.

2. Methods

2.1. Study Type

It is a descriptive study that analyses teachers' practices about a competency-based approach at the Higher Institute of Nursing Professions and Health Techniques (HINPHT) level in Rabat.

2.2. Sampling and data collection

The study involved 58 permanent teachers present at the study's time who support students in theoretical and practical training. They were chosen using the convenience sampling method because we did not have a sampling frame of participants

A well-structured questionnaire was distributed to each study participant.

2.3. Data analysis

Quantitative data were evaluated in terms of mean and standard deviations, while qualitative data were evaluated in numbers and proportions.

Data processing and analysis were done using SPSS version 20 and Excel 2016 software.

2.4. Inclusion and exclusion criteria

The study included permanent teachers working at the HINPHT in Rabat.

Permanent teachers working at the HINPHT of Rabat who were absent during the study period and temporary teachers working in the same establishment were excluded.

2.5. Ethical considerations

Respect for anonymity was respected in this study; each participant has an identifier, and the data collected was used confidentially and in the context of the research. Also, we had oral consent from all study participants.

3. Results and Discussion

The gender distribution showed that most of the participants, 65.52%, were female. Also, the distribution of teachers according to age, we can see that the participants in the study have an average age of 34 years old and that half of the respondents are between 30 and 40 years old. This shows that this is a more or less young population. 29.31% of the respondents are between 40 and 50 years old, as for the teachers who are 50 years old and over, it corresponds to 20.69% of the respondents.

Teachers with a teaching seniority between 10 and 15 years represent almost half of the study participants, 48.29%, while 8.62% have a seniority of less than five years (Table 1).

Table 1: Socio-demographic characteristics of respondents

Socio-demographic characteristics	n (%)
Gender (m±sd)	34±6.8
Male	20 (34.48)
Female	38 (65.52)
Age (years)	
30-40	29 (50.0)
40-50	17 (29.31)
>=50	12 (20.69)
Length of time in teaching (years)	
<5	5 (8.62)
5-10	6 (10.34)
10-15	28 (48.29)
15-20	13 (22.41)
>=20	6 (10.34)

sd: Standard Deviation; m: mean

The gender distribution showed that most participants were female. Also, according to the distribution of teachers by age, half of the respondents are between 30 and 40 years old, which shows that this is a relatively young population.

Teachers with between 10- and 15-years' seniority in teaching accounted for almost half of the participants.

Regarding CBA training, the percentage of teachers who have benefited from this training has reached 83% (Table 2).

More than half of teachers have benefited from CBA training, which explains the awareness of those in charge of the importance of this approach in training development. A study carried out in Canada on the organisation of training based on competencies (Goudreau and Boyer, 2017) well demonstrated this finding.
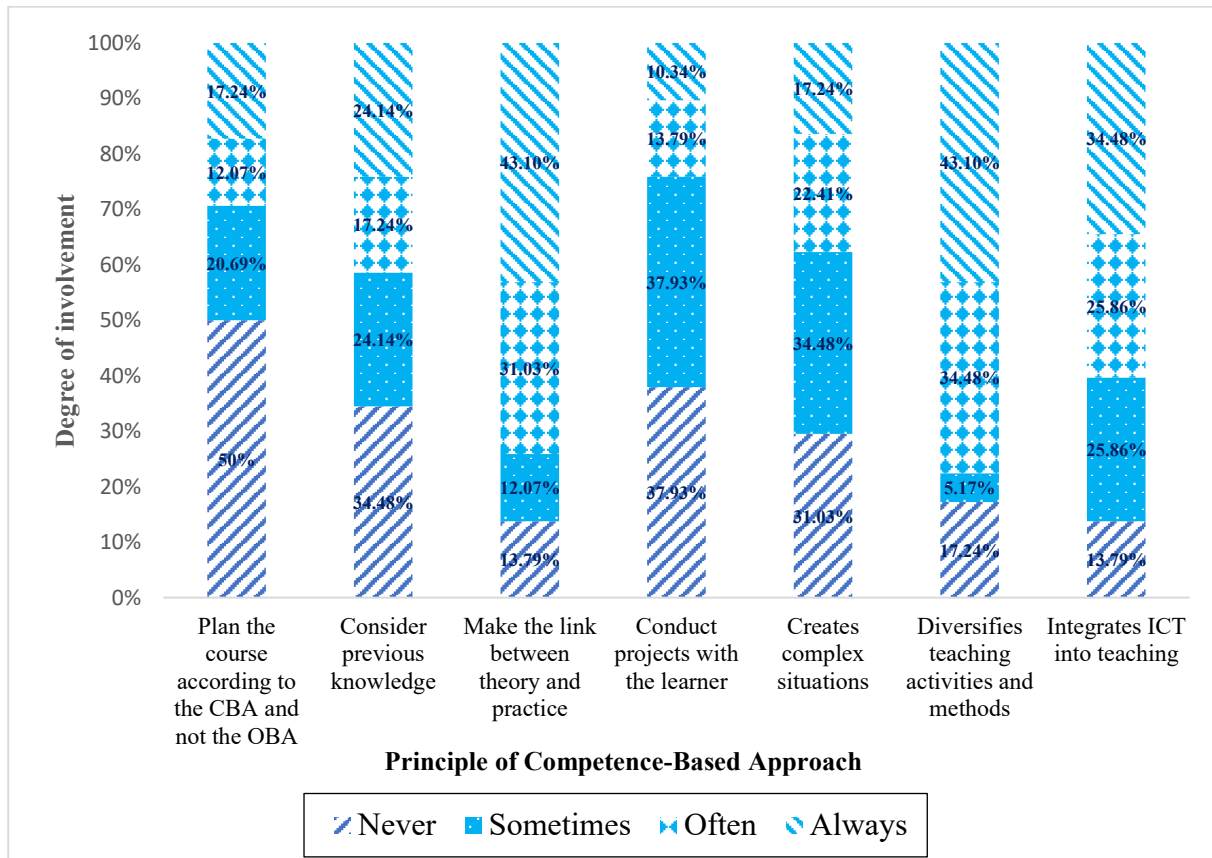
Half of teachers do not plan their lessons according to the CBA. 43.10% of teachers say they link theory and practice to attain and integrate skills and specify that they diversify teaching and learning activities and methods.

Table 2: Teacher training in the competency-based approach

CBA Training	n (%)
Training recipient	
Yes	48 (83.0)
No	10(17.0)
Teachers' assessment of training	
Insufficient	16 (27.08)
Not enough	34(58.33)
Sufficient	8 (14.58)

CBA, Competency-Based Approach

The creation of complex situations is carried out (sometimes by 34.48%, often 22.41%). To develop the learner's autonomy, negotiating and creating projects is sometimes practised by 37.93%. The respondents consider the learners' previous knowledge when developing new learning. (24.14% still do so, 17.24% often). Teachers ensure that Information and communication technologies (ICT) are integrated into teaching-learning activities (again for 34.48% and often for 25.86%) (Figure 1). Also, half of the teachers do not plan their lessons according to the CBA, so we can conclude that half of the respondents do not practice this approach in their teaching and are loyal to the objectives-based approach OBA. On the contrary, it is essential to note that most recent research tends to favour CBA. This is because this approach is seen as more in line with the complex requirements of the health professions and the needs of today's learners (Bernard, 2006; Bouveret et al., 2012; Georges, 2015).

CBA, Competence-Based Approach; OBA, Objectif-Based Approach; ICT, Information and communication technologies

Figure 1: The principles and implications of competency-based education respected in course delivery

More than a third of teachers say they link theory and practice to attain and integrate skills and specify that they diversify teaching, learning, and teaching methods to enable students to learn better. A study conducted in Canada in 2018 (Charette, 2018) supported these elements.

Also, complex situations are created to develop the learner's mental capacities, which are helpful in different situations. Two studies have demonstrated that creating complex situations is essential to CBA in health (Loosli, 2016; Parent et al., 2020).

Most teachers (82.76%) specify that evaluations do not promote student creativity development. They state that they do not include an assessment scale or correction criteria to allow students to self-evaluate. At the same time, half

confirm that the evaluations present various problematic situations of a realistic nature to enable the transfer of skills in multiple situations, and the majority, 77.59%, specify that the evaluation is in line with teaching-learning activities (Figure 2).
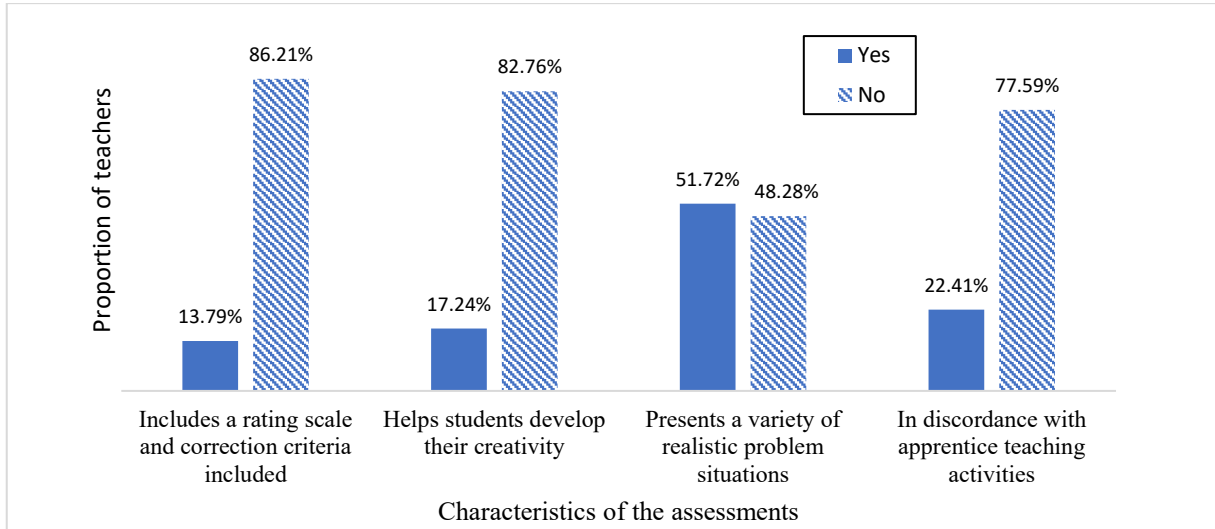

Figure 2: Characteristics of the evaluations respected by teachers

Table 3: Difficulties the teachers participating in the study identified according to the competency-based approach

	Number and percentage of participants n (%)				
Type of difficulty	Very important	Quite important	important	It doesn't matter	Doesn't matter
Lack of pedagogical training at the CBA	28 (48.27)	16 (27.59)	9 (15.52)	3 (5.17)	2 (3.45)
The non-collaboration of teachers	12 (20.69)	24 (41.38)	13 (22.41)	6 (10.34)	3 (5.17)
Lack of communication between teachers and learners	10 (17.24)	26 (44.83)	11(18.97)	9 (15.52)	2 (3.45)
The number of teachers is not sufficient	7 (12.07)	17 (29.31)	8 (13.79)	12 (20.69)	14 (24.14)
Active pedagogy, where the student is the center of learning, is not adopted	14 (24.14)	26 (44.83)	11(18.97)	5 (8.62)	3 (5.17)
The non-multidisciplinarity of teachers	10 (17.24)	24 (41.38)	9 (15.52)	8 (13.79)	7 (12.07)

The first difficulty teachers report is the lack of training in CBA, with a reporting percentage (very high of 48.27%), followed by the non-adoption of active pedagogy or the student and the center of learning with 24.14%. The non-collaboration of teachers with each other represents 20.69%. The lack of communication between teachers and learners and the non-multidisciplinary teachers represents the same degree of importance with a percentage of 17.24%. Finally, the inadequacy of the number of teachers represents 12.07% (Table 3).

Teachers sometimes practice negotiation and project creation to develop the learner's autonomy. The respondents consider the learners' previous knowledge when developing new learning. They also ensure that ICT is integrated into

teaching-learning activities. Similarly, a study showed that ICT is crucial in developing learners' skills (Bernard, 2006).

Most teachers specify that the evaluations carried out do not promote the development of the student's creativity. They state that they do not include an assessment scale or correction criteria to allow students to self-evaluate. At the same time, half confirm that the evaluations present various problematic situations of a realistic nature to enable the transfer of skills in multiple situations. The majority specifies that the evaluation is in line with teaching-learning activities. In a study adopting a mixed methodological approach, researchers have established that implementing diversified assessments faithful to professional realities significantly promotes the acquisition of skills and the

autonomy of health students (Ciavaldini-Cartaut et al., 2017).

The first difficulty teachers report is the lack of training in CBA, which was raised in a study conducted in Casablanca (Darraj et al., 2020). In the same vein, the non-adoption of active pedagogy or the student and the center of learning is a significant difficulty in the practice of CBA, which was well reported in the Aberdan series (Abredan, 2019). The lack of collaboration between teachers, communication between teachers and learners, and the non-multidisciplinarity of teachers also represent difficulties that need to be considered in the CBA. Indeed, a study has shown that implementing coordination and communication mechanisms optimizes learners' skills (Foucaud et al., 2015).

From the above, we note that the principles of the advanced competency-based approach in studies (Miled, 2005; Perrenoud, 2000), which teachers respect, are integration of learning, helpful teaching, situational teaching, problem situations for the development of mental capacities, learning situation presenting difficulties for the learner, learner activity, motivating learning situations. Those that are not: formative assessment and teaching focused on the interest and needs of the learner.
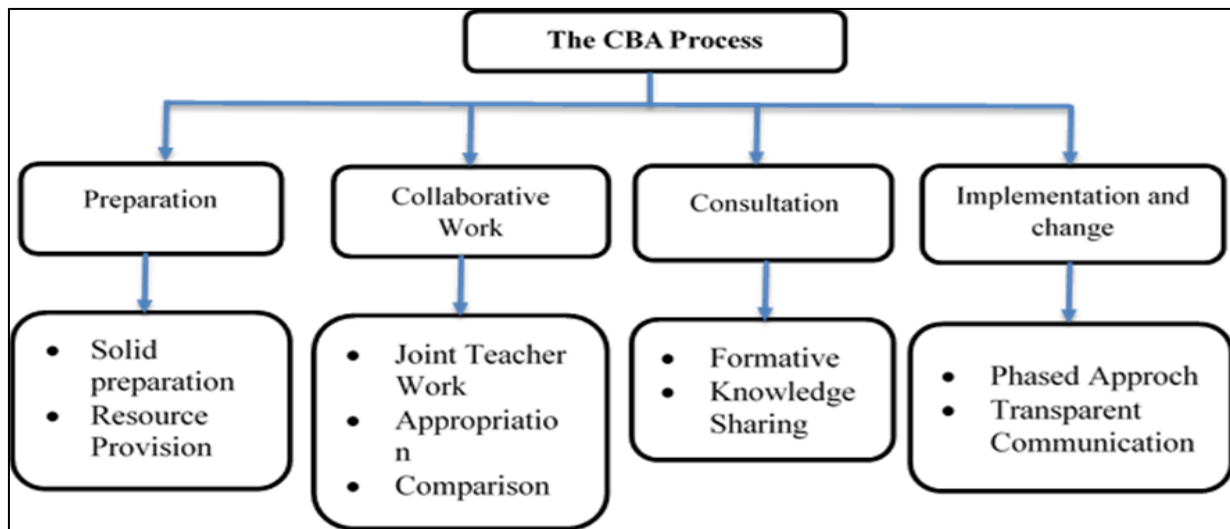

Figure 3: The process of competency-based adoption by teachers

4. Conclusion

The teaching profession is constantly evolving and requires regular adaptations. The present study started by verifying the teacher's practice and its compliance with the principles and implications of the competency-based approach. To this end, we carried out a field investigation based on theoretical elements in the form of a questionnaire administered to the teachers of HINPHT in Rabat to gather more data.

Our results confirm that teaching practices do not entirely align with the principles and implications of the competency-based approach.

The CBA recommends developing several learning strategies (cognitive, creative, intellectual, etc.) and using their knowledge, know-how, and interpersonal skills to share and acquire skills. It is mainly used to focus the pedagogical act on the transfer of learning to an authentic situation and to determine the expected results regarding the level of skill mastery at the end of the training. However, its implementation is difficult in the current training context until a program is revised according to the CBA and institutionalized.

In light of this study's results, recommendations were made to address the limitations that hinder the excellent practice of CBA by the teachers of HINPHT in Rabat by institutionalizing it and involving all stakeholders in the pedagogical act, either directly or indirectly (HINPHT, the training division, and clinical settings).

This study also provides a basis for future research to identify the perceptions of laureates and managers on CBA. It would be relevant to evaluative research to verify the practice of CBA.

Recommendations

The CBA promotes the collaborative work of teachers. This joint work allows for a better appropriation of skills determined by the curriculum, a comparison of practices and an improvement in evaluation. Consultation is formative and promotes the sharing of knowledge, thus enriching pedagogical practice. Figure 3

Therefore, solid preparation for the CBA is essential to optimize this pedagogical method's effectiveness and promote the teacher's active engagement.

One of the most important accompanying measures for the implementation of CBA is the provision of adequate and adequate resources, and there is a need to provide a conducive learning environment and teaching materials that meet the requirements of CBA.

Finally, change, including adopting CBA, requires a phased approach and transparent communication to overcome resistance.

Conflicts of Interest

The authors declare no conflicts of interest.

Data availability statement

Data will be available upon request from the corresponding

author.

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