

USE OF THE PORTFOLIO IN A TEACHING/TRAINING CONTEXT FOR THE DEVELOPMENT OF REFLECTIVE PRACTICE IN STUDENTS: ARE THERE ANY OBSTACLES RELATED TO THE TEACHERS THEMSELVES?

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ABSTRACT

At the crossroads of the field of care and training, is the commitment to a quality, efficient approach, concerned with providing answers adapted to the needs and expectations of customers. Nursing education is now part of a new challenge: to constantly adapt to initiate and contribute to the development of tomorrow's skills, while positioning itself in a more competitive and still very unstable environment (Gurraud, 2006). In this perspective, a new concept has emerged in the field of education: that of "reflective practice". Indeed, the development of reflective practice can be produced through writing and this through mediation where the portfolio takes a privileged place (Tardif, 2006). Thus, the teacher must ensure that high-level skills or competencies can be developed in his students, by using this tool in a framework that emphasizes autonomy, reflection and critical thinking. Nevertheless, if the teacher does not succeed in fulfilling his or her role, obstacles can appear and negatively affect the reflexive development of students.

This article aims to study the existence of obstacles to the use of the portfolio, which may be related to the teachers themselves, among students of the Higher Institute of Nursing and Health Techniques of Al Hoeima. After data collection carried out through a self-administered questionnaire to 50 students, and completed through a semi-directive interview conducted after seven teachers and educational managers. The main results reveal the existence of a number of teacher-related barriers to the effectiveness of this tool. In this context, suggestions are made to improve the use of this learning and assessment tool at the level of the ISPITS in Al Hoceima.

KEYWORDS: *Portfolio, Use, Students, Teachers*

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1. INTRODUCTION

In nursing education, a new pedagogical strategy based on the competency-based approach has recently emerged. According to this approach, it is important to encourage students to develop their ability to act in action in situations of a unique and complex nature, so that they can make connections between their acquired knowledge and the new situation (EPP, 2008).

Patience, professional competence, and more criteria to be specified are qualities that a registered nurse must have. To respond to the evolution of these nursing qualities, needs and knowledge in the health field, the new LMD

(Licence-Master-Doctorate) system encourages the repositioning of the development of reflective practice at the heart of teaching and learning activities. In this perspective, the teacher must encourage the autonomy and development of students' reflective skills through meaningful activities and the mobilization of various resources, which makes it possible to build their knowledge, their interpersonal skills and their know-how (Lasnier, 2000).

In other words, Tardif (1998) argues that it is important for the student to reflect on the knowledge mobilized in action. According to him, teachers must, therefore, encourage the habit of this reflection in their students so that skills are not inflected automatisms and in order to promote the transferability of different knowledge in action. The use of portfolios in initial training is multiplying with a dual aim. This involves both reconsidering training in terms of the development of skills that the portfolio is witnessing (Tardif, 2006; Scallon, 2009; Roegiers, 2010) and emphasizing the importance of identity development and reflexivity in professional activity (Deum and Vanhulle, 2008 ; Merhan, 2009 ; Vanhulle, 2009 ; Michaud, 2010). This can be developed through clinical or practical work, studies of professional situations, conducted individually or in groups, and guided by trainers or field tutors. In addition, the student develops his reflexivity by writing situation analyses that he must transcribe after each internship and group them into: the portfolio (Garnier and Marchand, 2012).

This new tool allows each nursing student to become more responsible, more autonomous, more research-oriented, more engaged, more conscious, and endowed with more sustainable critical thinking skills. In addition, the portfolio allows you to analyze your training needs and priorities, define your work objectives, establish your program, select your resources and how to use them, then as you progress, explain what you have done (self-assessment, impressions), and define the next steps in your work. Nevertheless, the ambitious goals pursued make the maintenance of a portfolio demanding for students and teachers (Naccache, Samson and Jouquan, 2006). In this sense, these three authors explain that the development of the portfolio encountered several obstacles, including: the poor quality of pedagogical supervision; the lack of clarity of working instructions; and the non-explicit nature of the criteria taken into account in the portfolio evaluation.

In addition, an observation based on non-formal interviews with some ISPITS students and teachers reveals that portfolio use is made by students but in an unsatisfactory way. In addition, among the teachers questioned, there are those who confirm the existence of a certain number of obstacles that limit or even block the effectiveness of the portfolio. Among its obstacles, the lack of training of students and teachers in portfolio development and evaluation, as well as overload of training programs and insufficient time allocated to the internship were the most frequently reported by teachers. In order to shed more light on the importance of the portfolio and the need to reposition it at the heart of ISPITS training, this article aims to describe the obstacles to the use of the portfolio by ISPITS students in Al Hoceima, who come from the teachers themselves.

2. THE CONTEXT

This is the first study of its kind carried out at the ISPITS in Al Hoceima, Morocco, which addresses the obstacles to the use of the portfolio by ISPITS students. In addition, this study is topical and has the advantage of directly addressing one of the aspects of nursing discipline, particularly education, and those through one of the main tools of reflective practice, namely the portfolio.

The choice of this institute is due to certain reasons, among others: the proximity since the author of this article exercises

3. CONCEPTUAL FRAMEWORK

3.1. Definition of the Portfolio

A portfolio is a collection of evidence of work, but also a showcase (public), achievements, or even reflections of an individual (Depover, Karsenti and Komis, 2007), and an activity that must be properly planned and structured so that high-level skills or competencies can develop in a framework that emphasizes autonomy, reflection and critical thinking (Scallon, 2004). In the same vein, Depover, Karsenti and Komis (2007) explain that the portfolio also refers to the level of a person's knowledge and know-how. These authors stipulate that a portfolio shows an individual's motivation, learning and production. Similarly, this tool is considered an excellent metacognition exercise, a characteristic according to which we know that we know, to which is added the ability to take all necessary measures to ensure that our own learning is regular (Scallon, 2004).

3.2. Portfolio Types by Content

Each portfolio differs from the other, so depending on the content, four types can be distinguished. First, the learning record: it is a significant and integrated collection of the student's work illustrating his or her efforts, progress and achievements in one or more areas (Paulson and Paulson, 1991, in Goupil and Lusignan, 1994). This collection is based on performance standards and reflects the student's reflection and participation in the development of the collection, the choice of content and judgments made. The portfolio indicates what is being learned and why it is important.

Second, the evaluation file: it is a significant collection of the student's work that illustrates his or her progress in the development of a particular skill and takes shape over time (Dore, L., Michaud, N., Mukarugagi, L., 2002). The selection made by the student and the teacher includes works that constitute the relevant indicators of the development of the competence. This choice reflects the student's reflection on his or her efforts, strategies, progress, strengths, successes, difficulties, in relation to the evaluation criteria established at the outset (Dore, L., Michaud, N., Mukarugagi, L., 2002).

Third, the presentation file: it is a form of communication, since it is also done through achievements (Jalbert, 1997); these achievements are chosen according to the audience to be reached (Jalbert, 1997). With this in mind, the portfolio is scrutinized as a collection of selected works to showcase knowledge and expertise in one or more disciplines (Jalbert, 1997).

Fourth, the professional development record: according to Wolf (1991), cited by Goupil, (1998), a teaching portfolio is a structured collection of a teacher's best work; this collection, which is selective, reflective and cooperative, demonstrates a teacher's achievement over time and in a variety of contexts. In this sense, the portfolio is more than a list of a teacher's achievements, it contains samples of teaching performance (such as lesson plans, student assignments) and, along with these examples, the teacher's reflections on the meaning of this work.

3.3. Different Forms of the Portfolio

Depending on the form, the Ministère de l'Éducation au Québec (M. E. Q., 2002) specifies that the portfolio may take the form of a binder, a binder, a folder, a folder, a box, a CD-ROM, a diskette, a set of files available on the network, etc. On the one hand, a more traditional version can be used by all teachers and students; they will therefore develop the tool from

directly manipulable and palpable media such as sheets, posters, collages, etc. and may attach photoFigures, audio CDs or DVDs to it. On the other hand, an electronic version may be preferred; and has been developed since the early 1990s (Barrett, 2001). This electronic portfolio has some advantages over the paper portfolio (Baron and Bruillard 2003). It is easier to review and modify than its paper counterpart, and it can be put online, in whole or in part, and thus made public, which gives it greater portability and better dissemination (Barrett, 2000b). According to the author, it can also provide the institution with information on the progress and results of a training course. Finally, it can allow the learner to very easily create links between several subjects on the same project or with documents outside the portfolio. It should be pointed out here that this work will focus, from a content point of view, on the learning portfolio used by the student and which represents a tool for developing his thinking and formative point of view on the paper format since it is the most used in nursing training in Morocco.

3.4. Teacher-Related Barriers

Although the majority of teachers emphasize the importance of portfolio development in developing students' thinking, students face several challenges in this regard. In this respect, it is necessary to highlight the obstacles related to teachers in the use of portfolios. In this context, the absence, pedagogical inadequacy or poor relational quality of supervision, whether it is the mentoring process around the portfolio or feedback by resource persons in the students' various practice settings, also the lack of clarity of work instructions regarding the content and formats expected for the portfolio (Naccache, Samson and Jouquan, 2006). In addition, the lack of support and clear guidelines is a real barrier, several authors (McCready, 2007), (Corcoran and Nicholson, 2004, McMullan, 2006, Nairn et al, 2006, Taylor et al, 2009, Timmins and Dunne, 2009) state that support is essential in portfolio development and emphasize the importance of having clear guidelines for students.

In other words, the support and guidance received during portfolio development statistically significantly reduces anxiety and increases students' esteem for the tool as an assessment strategy (McMullan, 2006), and the better the support, the more students feel the process helps them in their personal and professional development while positively influencing the perception of the tool's utility (McMullan, 2006). They demonstrate the need for clear instructions, explanations and feedback (Taylor et al, 2009). The teacher can facilitate the portfolio development process by encouraging the student to choose the tools to insert since this task requires reflection and judgment (Taylor & AL, 2009).

Cor'coran and Nicholson (2004) state that students feel some anxiety about the expectations required to develop the tool that was not summatively evaluated for the cohort taking part in their study. In this sense, the situations written after the 1st stage of nursing studies, in particular, do not correspond to practice analyses, since students do not benefit from external support, whether it is field professionals who do not themselves have sufficient knowledge of this new tool or trainers who are not very available at this period (Garnier and Marchand, 2012). Similarly, there is a broad debate about the portfolio and its use by the teacher for summative evaluation purposes. In addition, some authors defend this decision and argue that in the absence of a rating, students do not seriously engage in this activity, especially since they have other exams to take over the same period. Other authors condemn the summative aspect, explaining that the reflective quality may be lower because the student, seeking to satisfy the evaluation criteria as a priority, selects certain forms of situations (Buckley, Coleman, Davison et al, 2009) Hays, Gay, 2011).

4. METHODOLOGY AND METHODOLOGY

4.1. General Objective of the Study

Describe the obstacles to the use of the portfolio by ISPITS students in AL Hoceima that are related to teachers.

4.2. Type of Study

It is a mixed descriptive study with an exploratory purpose.

4.3 Method of Investigation

In this research, the mixed approach remains the most appropriate. Because this study will describe the obstacles to the use of the portfolio by students of the ISPITS of Al Hoceima who are specifically linked to teachers through self-administered questionnaires that will be completed by semi-structured interviews with resource persons in this field.

4.4. Target Population

The target population of the study corresponds to four levels:

Level 1: The number of ISPITS students.

The target population of the study corresponds to a sample of 50 students divided into 2 sections: midwife and polyvalent nurse :

Table 1

Level of Study	Polyvalent Nurse			Midwife	
	F	M	Total	F	Total
S6	26	4	30	20	20

Source: ISPITS management

- **Level 2:** ISPITS permanent teachers who use the portfolio
- **Level 3:** ISPITS AL Hoceima resource persons: The Director of ISPITS and the Coordinators of the two options: SF, IP
- **Level 4:** Clinical Support Health Professionals

4.5. Sampling Method

This study is unique in that it will only address the case of barriers to portfolio use at the level of a single ISPITS, Al Hoceima. But the selection of the actors involved will be made by reasoned choice according to the sector and the use of the portfolio, the subject of the study. As well as the resource persons, whose answers allow us to reach other angles of the study from close up and constitute a real addition to it.

4.5.1. Inclusion Criteria

- All teachers who require students to develop the portfolio.
- All nurses who participate in the follow-up of the portfolio realization.
- The Director of the ISPITS of AL Hoceima.

4.5.2. Exclusion Criteria

- Students who do not use the portfolio.
- Teachers who do not ask their students for the portfolio.
- Teachers who are on exceptional or sick leave during the data collection period.
- Teachers who ask their students for the portfolio but refuse to participate in the study.
- Anyone who refuses to participate in the study.

4.6. Data collection Tools

4.6.1. Questionnaire

It is a practical way of collecting quantitative data. It was chosen from among the tools in this thesis because of its multiple advantages: it is inexpensive, economical, easy and quick to apply. In addition, it is a reliable collection and the results obtained are accurate because the answers are more objective and are not affected by the presence of the interviewer. It should be noted that before starting the data collection by questionnaire, pre-tests were carried out with experts in the field.

4.6.2. Semi-Directive Maintenance

It is the most widely used qualitative survey technique in research fields.

This interview, which guarantees the study of all the questions that concern this work, also ensures the comparability of the results and greater freedom of expression for the participants in this study on their feelings and recommendations regarding the problem addressed.

5. RESULTS

5.1. Results Obtained from the Questionnaires

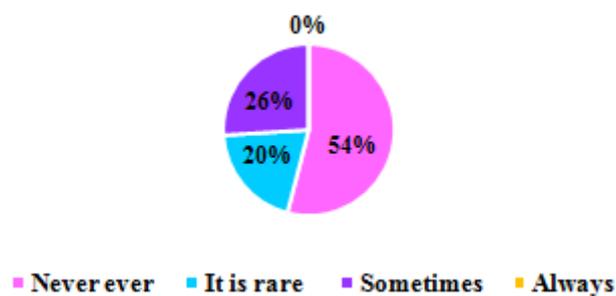


Figure 1: $n^{\circ} = 1$: Distribution of Students According to the Frequency of their Pedagogical Guidance by their Teachers.

This Figure shows that the majority of students have never received pedagogical guidance from teachers (54%) while the rest say that such guidance is rare.

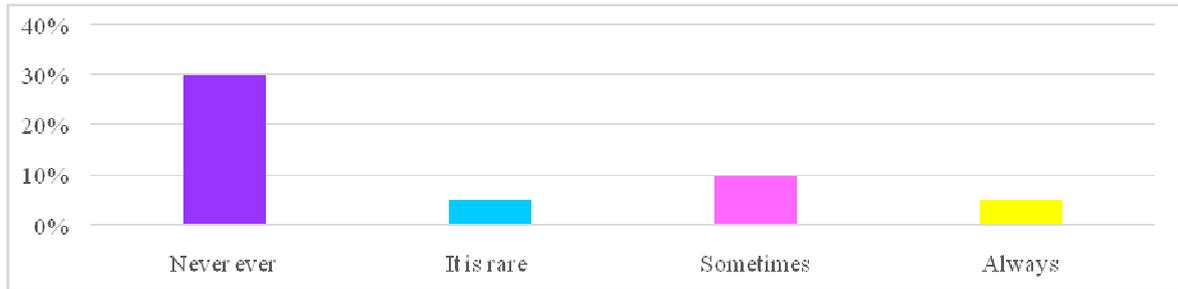


Figure 2: n° = 2: Accompaniment and Support During Portfolio Development.

In the light of this Figure it is noted that the majority of students (30%) who participate in the study never benefit from support and guidance when developing the portfolio, (10%) of students report that they have sometimes received support when developing the portfolio and fair (5%) of students report that they always have support when developing the portfolio.

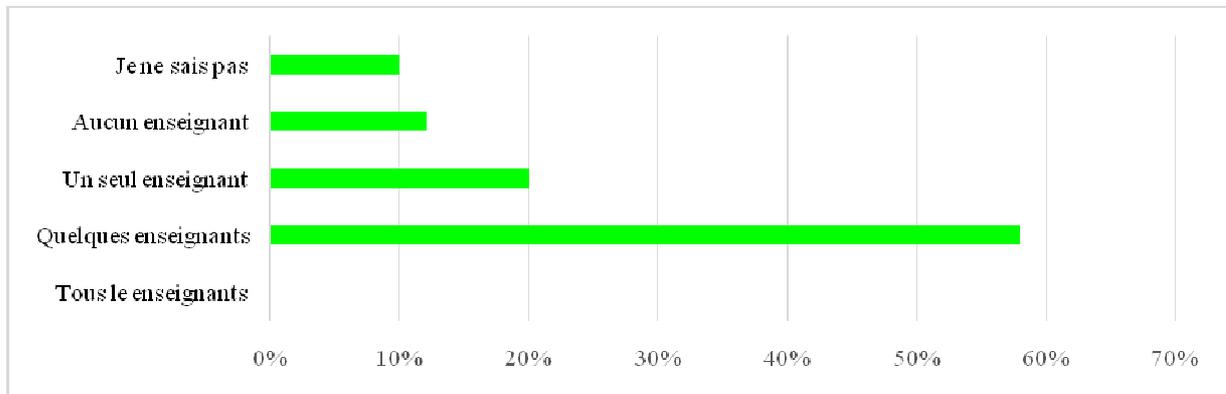


Figure 3: ique n° =3: La Prédéfinition Des Lignes Directrices D’élaboration Et D’utilisation Du Portfolio Par Les Enseignants.

Ce Figureique dévoile que plus que la moitié des étudiants (58%) affirment que juste quelques enseignants qui prédefinisent d’avance les lignes directrices d’élaboration et d’utilisation du portfolio. Nonobstant 12% signalent qu’aucun enseignant ne détermine ces lignes directrices d’avance.

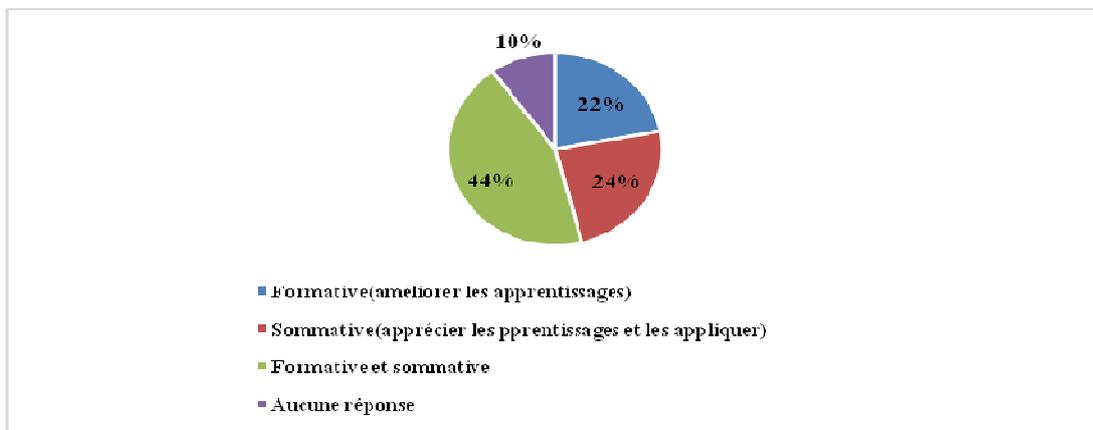


Figure 4: n° = 4: Portfolio Evaluation.

Based on the results of this Figure, the majority of students (34%) indicated that portfolio evaluation is both formative and summative.

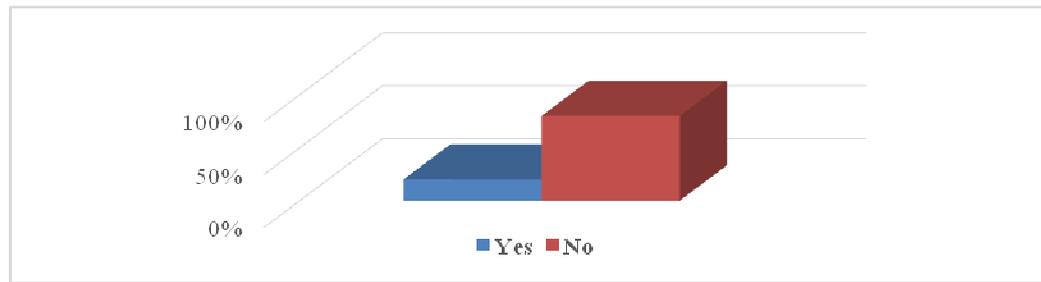


Figure 5: n° = 5: The Summative Evaluation of the Portfolio and Its Negative Impact on the Student's Reflective Quality.

From this Figure, the majority of students state that the summative evaluation of the portfolio does not limit the reflective quality of the student, while only 20% of them confirm the opposite.

5.2. The Results Obtained Through the Conduct of Semi-Directive Interviews with Resource Persons on the Use of the Portfolio

The principle of fidelity was respected in the presentation of the results of the semi-directive interviews conducted with seven resource persons. It should be noted that the results will be presented in tabular form that will address each question asked during the interview, and a verbatim transcript of each interviewee's comments.

Table 2

Theme	Person 1	Person 2	Person 3	Person 4	Person 5	Person 6	Person 7
The Level of use of the Portfolio by ISPITS AL Hoceima Students	"Referring to the recommendations of the Ministry of Health, the portfolio should be used in all internship modules but unfortunately in reality this objective cannot be achieved".	"The portfolio is used in some internship modules, it is used by midwives more than polyvalent it depends on the teachers".	"Already used by midwives as a learning and assessment tool at the same time".	"It is used in just a few internship modules".	"Midwife students are already being asked to prepare the portfolio and have been doing so for years now".	"Although students sometimes ask us to provide them with information about the service, this is rarely done and by only a few".	"I can't answer this question because I'm not trained in the portfolio and I can't assess its level of use."
Obstacles to Using the Portfolio	"There are problems with writing: because the student at the ISPITS level is not used to writing and documenting in French" "the student does not have a prerequisite concerning the French level and the analytical writing of situations".	"Teacher-related barriers: this is a heavy and additional task to assess each student's portfolio, especially if their enrolment is very high. "Obstacles related to students: Overload of studies, lack of portfolio training, lack of follow-up and guidance. "Linked to the training system : Absence of portfolio standardization, absence of portfolio recommendations by the administration".	"Barriers related to teachers: The overload of work in either courses or assessment programs, the portfolio is very stressful for the teacher and requires a lot of time during correction. "obstacles related to students: Lack of clinical supervision".	"Lack of training concerns the portfolio, students have a very limited passage in the internship sites. They are supervised by the supervisor". "lack of progress in students' practices and learning: specific techniques that are rare in most cases, which does not offer students the same opportunities to reflect on their practices".	"The lack of time for students to develop the portfolio within a specific time period. For teachers the only obstacle is the lack of correction time, because at the maternity level there are 2 promotions and the problem is that there are only 2 teachers".	"The lack of time devoted to correcting the portfolio for the teacher, and the lack of organization for the student due to overwork. "The French level of students is low".	"The obstacles to using the portfolio are varied: the lack of supervision and assistance from field supervisors when students develop the portfolio, the lack of time devoted to portfolio development, the lack of importance of the document, and the lack of coaching and pedagogical support when developing the portfolio.

Does the Summative Use of the Portfolio Limit Reflective Quality in Students?	"Yes, the summative use limits the student's reflective quality, because the student must focus just on the grade".	"Of course, the student's concern is to get the best possible grade, at the expense of the quality of the portfolio. "The teacher's concern is always to give the mark without knowing whether the student masters the techniques and acquires the skills". "The formative evaluation frees the students from this concern for the mark, the objective is to acquire the objectives and to lead the reflection to criticize the different techniques and situations".	"No, the summative use of the portfolio does not limit the reflective quality of the student".	"Yes, the summative use of the portfolio limits reflective quality in students, because the student focuses just on the grade to get a better grade in the end".	"Yes, having a score on the portfolio limits the reflective quality of the student".	"I have no idea."	"I don't know."
The Respect of a Standard Format in the Development of the Portfolio	"No, the standard format is not respected, there are individual and personal efforts of each teacher".	"No, there is no standard format".	"For midwives, there is a standard format for portfolio development".	"The absence of standardization of portfolio elements. The format of this tool is judged differently from one teacher to another".	"Yes, there is a standard format for midwifery portfolio development and a guide to follow".	"I think there's a standard format."	"I have no idea."
Is the Cost of Printing the Portfolio a Barrier?	"Perhaps the cost of printing the portfolio is an obstacle."	"No".	"Sometimes."	"Perhaps the cost of printing the portfolio is an obstacle."	"I don't think cost is an obstacle to printing the portfolio."	"I have no idea."	"Yes, the cost of printing the portfolio is a barrier."
Reactions to Obstacles When Developing the Portfolio	"I have no idea, because the portfolio is not mandatory".	"I don't have a great distance, it's rare for the pedagogical commission of the teacher to discuss this type of subject. Only once did we discuss the number of students because it is difficult for a single teacher to follow 70 portfolios for example. As a reaction to this obstacle, only one teacher has to follow just 15 portfolios".	"I have no idea, because the portfolio is not mandatory and the clinical supervision is better equipped with other tools such as "... the internship report, the reports..."	"We must react to the obstacles to portfolio development because this tool is mandatory and convinced of its effectiveness. So that the student is up to date in his or her learning".	"Increase the number of teachers and reduce the number of students so that the teacher devotes more time to correcting the portfolio and accompanying students".	"It takes 20 to 30 minutes after each internship day for the student to focus on writing the portfolio".	"I don't know."
Suggestions for Overcoming these Obstacles and Improving the use of the Portfolio	"Standardize and formalize the portfolio and simplify it. Train students on the portfolio, and to know how to write the reports and identify the elements of the portfolio".	"This type of constraint deposit to overcome the obstacles related to the training system : it is necessary to hold meetings to standardize the portfolio, to provide training for students and teachers". "To overcome student barriers, it is necessary to prepare the student for each beginning of the internship on the portfolio, raise awareness of its usefulness, and involve all staff (internship tutors) in the development of this tool."	"Training students on the importance of the portfolio".	"Students and teachers must be trained in portfolio development and pedagogical support for teachers in the development of this tool".	"Extend the time allocated to portfolio writing".	"The portfolio should be used in all internship services and awareness of portfolio effectiveness should be raised".	"Train students and service staff in portfolio development and standardize the portfolio format".

6. DISCUSSIONS AND ANALYSIS OF THE RESULTS

To guide the student in his or her reflection and self-evaluation work, it is necessary that the teacher has access to each student's portfolio. However, the development of this learning and assessment tool faces obstacles related to teachers themselves.

While, one of the main goals of portfolio development is the development of a reflective process related to the acquisition of skills. To this end, Timmins and Dunne (2009), in a study evaluating the implementation of a portfolio as an educational tool for developing and evaluating critical care competencies for nursing students, propose a model guide for writing the portfolio. According to these authors, for future implementation, it would be interesting to use this model as a guide to reflection and the development of reflective skills. They stress that students should have in their possession a guide, included in the portfolio development guide, to help them reflect on the documents produced and the skills

developed during the portfolio development. In the results of their study, the authors state that despite its presence, this guide has been used very little by female students.

In addition, half of the students at ISPITS in Al Hoceima (58%) say that few teachers pre-define guidelines for portfolio development and use in advance. Nevertheless, 12% report that no teacher determines these guidelines in advance. In the same context, only 32% of the respondents in McMullan's (2006) study felt that they had received clear instructions about portfolio objectives. However, 33% clearly knew what types of documents to include in the tool, 21% knew how many documents to include in the tool and finally, only 6% mentioned receiving feedback on a regular basis.

According to the results obtained, it was also found that the majority of students stated that they had never had support and guidance from their supervisors during the development of the portfolio (30%), which is consistent with the study of Col'coran and Nicholson (2004), according to which, participants stated that they experienced uncertainty about how to develop this tool, but also about the expectations and advice of their supervisors. They claim that the anxiety experienced during portfolio development can have negative effects on their motivation.

In the light of this study, the students affirm the presence of other obstacles hindering the effectiveness of the portfolio. Among other things, the lack of guidance when developing the portfolio (42%). However, according to a study prepared by Chantal and Garnier (2012), all students replied that they had received assistance in writing their situation analyses, which they considered to be an essential condition for writing them. These students claim that they have been accompanied by their trainer, a pedagogical referent in various forms.

The said authors explain that the students' $\frac{3}{4}$, had given their portfolio after each internship for reading by the trainer who had given feedback on each story, with a critical eye. According to the same study, exchanges could take place on the points to be taken up again, the improvements to be considered. Some trainers sometimes proposed to rewrite the situations to readjust them. Nevertheless, less than half indicated that this delivery took place at a distance from the internship and three added that the explanations given were often superficial because the trainers did not have much time to meet each student. On the other hand, students cited other obstacles such as: the low level of the French language (34%), and the lack of initial portfolio training and standard guidelines to follow. These obstacles, also confirmed by interviews with teachers and resource persons, deserve particular attention in order to limit them to a minimum and raise teachers' awareness of the seriousness of their consequences.

7. CONCLUSIONS

Developing or acquiring reflective practice is an active and deliberate process of critical examination of one's practice where an individual is challenged and empowered to engage in a self-assessment process. It allows the student to enter into a reflective spiral of personal transformation that allows him/her to acquire the autonomy to carry out a desired and effective practice (Duffy, 2007). It is at the heart of professionalization, especially since it can be conceived as a habit "integrated into daily life" (Perrenoud, 2001, p. 62). Nevertheless, the deliberate process of reflective practice still seems to remain "more the exception than the rule" (Perrenoud, 2001, p. 62). Nevertheless, the deliberate process of reflective practice still seems to remain "more the exception than the rule" (Dreyfus and Dreyfus, 1986).

It is a question here of shedding light on a reflective posture and practice based on a methodical, regular, instrumented, serene and effective analysis, which places an enormous responsibility on the teacher since they are generally acquired only through intensive and deliberate training. To put nursing education in Morocco on the right track,

reflective practice must be the reference for teachers and trainers, and no opportunity must be lost to stimulate it, by providing the necessary environment and resources.

REFERENCES

1. Barrett, H.C., (2001). *Electronic portfolio educational technology, an encyclopedia*, eds. ABC-CLIO.
2. Baron.G.L, et Bruillard.,E., (2003). *Les technologies de l'information et de la communication en éducation aux USA: éléments d'analyse sur la diffusion d'innovation technologiques* (p.37-49). *Revue Française de Pédagogie* n=°145
3. Barrett H.C., (2000). *Electronic portfolios multimedia development portfolio développement; the electronic portfolio development process. A chapter in a book on electronic portfolios to be published by the American Association for higher education.*
4. Crevier,S. (2015) . *Le portfolio d'apprentissage numérique : un outil intégrateur au service de développement de compétence dans le programme technique juridique : Université de Sherbrooke.*
5. Daigle, M., (2013). *Évaluation de l'implantation d'un portfolio comme outil pédagogique de développement et d'évaluation des compétences en soins critiques d'étudiantes en sciences infirmières. Université du Québec à Rimouski.*
6. Dursan, N., (2010). *L'approche orientante : le portfolio un outil d'orientation. Université*
7. EPP.S. (2008). *The value of reflective journaling in undergraduate nursing education: A literature review. International Journal of Nursing Studies.*
8. Garnier,C. et Marchand,C. (2012).*Portfolio en Institut de formation en soins infirmiers : Mythe ou réalité. Recherche en soins infirmiers.*
9. Mc Mullan, M., Endacott, R., Gray, M. A., Jasper, M., Miller, C. M. L., Scholes, et Webb, C. (2003). *Portfolios and assessment of competence: a review of the literature. Journal of Advanced Nursing.*
10. Mc Mullan, M., (2008). *Using portfolios for clinical practice learning and assessment: the pre-registration nursing student's perspective. Nurse Education Today,*
11. Mc Mullan, M., (2008), *Évaluation de l'implantation d'un portfolio comme outil pédagogique de développement et d'évaluation des compétences en soins critiques d'étudiantes en sciences infirmières. Université du Québec à Rimouski. Etudes à temps plein.*
12. Mc Cready, T., (2007).*Portfolios and the assessment of competence in nursing: a literature review. International Journal of Nursing Studies.*
13. Michaud. C., (2010). *Le portfolio: un enjeu de formation et de développement professionnel en Education. Université Claude Bernard - Lyon I.*
14. Michaud, C., (2010).*La démarche de formation au portfolio : ingénierie didactique et apprentissages. Université Claude Bernard Lyon1.*

15. Naccache, N., Samson, L., Et Jouquan, J., (2006). *Le Portfolio En Education Des Sciences De La Santé : Un Outil D'apprentissage, de développement professionnel et d'évaluation.*(2006).
16. Nairn, S. O'Brien, E. Traynor, V. Williams, G., Chapple, M. et Johnson, S., (2006). *Student nurses' knowledge, skills and attitudes towards the use of portfolios in a school of nursing. Journal of Clinical Nursing, 15(12), 1509-1520.*
17. Paulson, P-R., et Meyer, C.A., (1991). *What makes a portfolio. Educational Leadership*
18. Scallon, G, (2000), *Le portfolio ou dossier d'apprentissage : propos et réflexion. Scallon, G., (2004). L'évaluation des apprentissages dans une approche par compétence. St-Laurent. Édition du Renouveau Pédagogique.*
19. Tardif, J. (1998). *La construction des connaissances. Les pratiques pédagogiques. Pédagogie Collegiale.*