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TOWARDS QUALITY TRAINING ENGINEERING OF SOFT SKILLS IN EDUCATIONAL SUPERVISION: VARIETY OF ANDRAGOGICAL METHODS AND STRATEGIES

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Abstract- In education as in business, professional and personal skills are in high demand to stimulate employability and professionalization. New Moroccan university reforms place greater emphasis on professional integration and employability. Promising careers are no longer aimed only at graduates who have mastered technical skills (hard skills), but above all at those who possess personal skills such as interpersonal and intrapersonal "Soft Skills". The field of professionalization of teaching professions, particularly in educational supervision, leads us to question the training engineering implemented, and the teaching methods and andragogical strategies proposed to acquire and develop Soft Skills required for the different functions of the profession of educational inspector? To try to answer these questions of the problem, we conducted exploratory and descriptive research with student inspectors from different cycles and sectors in initial professional training at the Training Center for Education Inspectors (CFIE) in Morocco. The survey tool used is a questionnaire (developed according to the TGN: Nominal Group Technique and validated by a group of educational experts) which we administered to a random sample of a population of student inspectors. The results of this research allowed us to highlight, within the framework of rational training engineering, the methods of teaching, acquisition and development of "Soft Skills" necessary for success in educational supervision (modalities programming, implementation methods, animation activities, learning situations), as well as the andragogical strategies used in the programming of these behavioral skills in the initial professional training of education inspectors in Morocco.

Keywords: Soft Skills. Engineering Training. Education Inspectors. Andragogical Methods and Strategies. Educational Supervision.

1. INTRODUCTION

The reports of the High Commission for Planning (HCP), the High Council for Education, Training and Scientific Research (CSEFRS) and the National Evaluation Authority (INE), revealed the shortcomings of the winners of higher education and professional training. To achieve this, increased importance has been given to professional integration and employability. This requires graduates to possess soft skills such as interpersonal and intrapersonal "soft skills" more than technical skills [1].

It is with this in mind that the integration of Soft Skills into training for teaching professions is essential. This questions us, within the framework of rational training engineering, about the programming methods and andragogical strategies implemented. It is with this in mind that the programming methods and andragogical strategies implemented, that the "Soft Skills" in professional educational training prove to be essential in the professions of teaching in general and educational supervision in particular. To do this, we asked the following research questions: "What andragogical methods and strategies have been implemented to integrate the Soft Skills that student education inspectors must possess to satisfy and respond to the requirements of their future profession?

To answer this question, we will choose to conduct exploratory and descriptive research with student inspectors who are continuing their initial professional training at the Education Inspectors Training Center (CFIE) in Morocco [2]. Our research objective is to detect, within the framework of training engineering, the methods and strategies used during the identification, acquisition and development of behavioral skills in initial professional training and their impact on their subsequent functions. in educational supervision [3].

In order to better understand this problem and achieve the desired objective, we will rely on the results of the research that we will carry out with the student inspectors, hoping that these results will allow us to see how this variety of andragogical methods and strategies implemented, within the framework of rational training engineering, could have an impact on the professionalization of educational supervision.

2. LITERATURE REVIEW

2.1. Definitions of Key Concepts

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2.1.1. Soft Skills

In the education literature, the concept Soft Skills shows that several authors do not agree on the definition of skills that are neither knowledge nor technical know-how (hard skills). While some authors speak of "know-how" [4],[5], others refer to" human skills" [6], "social and relational skills" [7] and even "emotional skills" [8]. While the Anglo-Saxons use different terms such as competency, behaviors or soft skills [9] Soft skills are then contrasted with hard skills, which are technical skills [10].

By consulting the French Oxford dictionary, soft skills are defined as: "the personal characteristics that enable one to interact effectively and harmoniously with other people". This highlights their cross-disciplinary nature, as they enable an individual's performance on different and varied tasks to be improved, whereas technical skills are linked to specific tasks. We conclude that soft skills are aptitudes developed through professional experience (practical training courses, work placements, professional activities, etc.) or semi-professional experience (workshops, modules, problem situations, group work, etc.) and which call on relational and emotional intelligence: sense of efficiency, sense of communication, adaptability, flexibility, collective sense, resistance to stress, creativity, etc... They are learnt in professional situations and in the field, within a structured organization and are mainly linked to the position held (coordination).

2.1.2. Training Engineering

Training engineering involves implementing an organization-wide skills development policy through training projects. This involves a series of stages: definition of the training strategy, definition of needs, design of the training project, coordination of teams and trainers, monitoring and evaluation of the training. Pedagogical engineering, on the other hand, refers to a very specific field within training engineering. This is the creation of learning paths and training content.

According to Thierry Ardouin, there are three levels of intervention in the pedagogical engineering process:
- Strategic level: transposition of strategic objectives.
- Operational level: training methods and training organization.
- Pedagogical engineering level: development of content and pedagogical scenarios.

There are four stages in a training engineering process:
- Needs analysis,
- Design of the training architecture,
- Implementation of the project,
- Evaluation of the training plan [11]

2.1.3. Teaching Models, Strategies, Methods and Techniques

Glickman (1991) quoted: "Effective teaching is not a set of generic practices, but a series of decisions about teaching made in each context. An effective teacher does not use the same set of practices for every lesson... Instead, he or she constantly reflects on his or her work, observes his or her students to see whether they are learning, and adjusts his or her teaching practice accordingly" [12]. This encourages each teacher trainer to detect the relationship between teaching models, strategies, methods and techniques in order to carry out his or her teaching act more effectively. We refer to Legendre's (1993) definition of professional training as: "all activities, teaching situations and teaching methods whose aim is to promote the acquisition or development of knowledge (skills, abilities, attitudes) with a view to accomplishing a task or a job [13].

According to Alter, pedagogical practice is the singular way of doing things, his real and specific way of carry out a professional activity. Practice is not only the set of observable acts, actions, reactions but this also includes the processes of implementation of the activity in each situation by a person, choices, decision-making: "this is the double dimension of the notion of practice which makes it precious" [14].

2.1.4. Conceptual Bases (Saskatchewan Ministry of Education 1988)

First, the definitions of the conceptual bases of teaching must be determined, namely:
- Teaching models: This includes information processing, behavior modification, social interaction and personal development.
- Teaching strategies: includes direct teaching, indirect teaching, interactive teaching, experiential learning, and independent study.
- Teaching methods: includes debate, guided visualization, contracts, cooperative learning, case studies, lecture, simulations, and enquiry.
- Teaching techniques: includes planning, presentation, evaluation, instruction, questioning and demonstration [15]

2.1.5. Andragogical Principles (Knowles, 1990)

Since our population of student inspectors are already civil servants at the Ministry of National Education (MEN) with at least six years' seniority before joining the CFIE. So, we're going to talk about Andragogy (adult learning). In this case, the adult must participate in the planning and evaluation of his or her learning. The trainer must involve the learner, ask him what his objectives are, why he is taking the course, what he expects from it, etc. This has prompted us to learn about the principles of andragogy, in order to achieve greater success in integrating Soft Skills into the vocational training of student inspectors:
- The learner must know why he or she should learn (why? what? how?),
- The learner is participative (autonomous and self-taught),
- Learning is based on previous experience (resources, models),
- The learner must be ready to learn (based on life experiences and development),
- Learning should have a focus (contextualized and problem-centered)
- The learner should be motivated to learn (intrinsic value, personal gain) [16]

3. METHODOLOGY

3.1. Questionnaire

We chose as an investigation tool for this research an electronic questionnaire from Google Forms, developed using a nominal group technique: TGN (with representatives of experienced inspectors, CFIE Teacher Trainers and Student Inspectors: *A*=12) and validated by a group of education experts (*B*= 8), based on closed and open questions to detect the representations of student inspectors from the different cycles and sectors of initial professional training of educational inspectors.

The questionnaire includes a total of thirteen questions divided into six parts:

- The first part, entitled: "General information", which aims to identify the characteristics of the respondents (variety of specialties taught at the CFIE, age group, professional seniority, gender, etc.).
- The second part entitled: "Notion of Soft Skills", targets the definition, etymology, nature and type of Soft Skills.
- The third part entitled: "Soft Skills planning methods",
- The fourth part entitled: "Modes of implementing Soft Skills",
- The fifth part entitled: "Soft Skills management activities".
- And the sixth part entitled: "Soft Skills learning situations"

3.2. Population and Sample

We administered 130 questionnaires to a random sample of 250 trainee inspectors (with a percentage of 52%), we received 100 completed questionnaires (C=100) (with a representative percentage of the sample of approximately: 77% and of the effective total of 40%), distributed over the three cycles: A) Inspectors responsible for Financial Services (10); B) Primary School Inspectors (40): Bilingual: Arabic-French and Amazigh language; and C) School Inspectors Secondary (50), distributed across the three training departments as follows: a- Scientific (22): Mathematics, Physics-Chemistry, Life and Earth Sciences, Computer Science, and Physical and Sports Education ; b- Languages and communication (12): Arabic, French, English ; and c- Humanities(16): Philosophy, History-Geography, and Education-Islamic (Decree No.: 2.08.521 of 2008).

4. RESULTS

The statistical and arithmetic analysis of the questionnaire results enabled us to detect the representations of the student inspectors towards the programming of Soft Skills in initial vocational training, the methods and the teaching strategies implemented. The results obtained were as follows:

4.1. Soft Skills Planning Methods in the Training Curriculum

Responses to the question on "methods for planning Soft Skills in the training program" showed that "Practical courses" (hands-on training) was by far the most dominant with a percentage of 52%, followed by programming in "modules" with a percentage of 24%. compared to other Soft Skills. In third position is the "seminars" programming with 12%. In fourth and fifth successive places are "continuing education" courses (8%) and "study days" (4%).

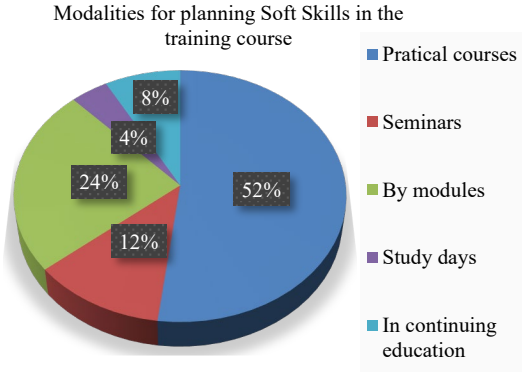

Figure 1. Percentages of Soft Skills Planning in the training of education inspectors

4.2. Ways of Implementing Soft Skills

Concerning the item relating to "Ways of implementation", the responses requested from the student inspectors opt for the "Facial" way which predominates with a percentage of 48%, followed by the "Hybrid" way which brings together face-to-face and distance learning, by a percentage of 24%. Followed by "professional situations" in third place with 16%. And finish in fourth and fifth place successively with "professionalizing situations" and "remotely" with 8% and 4%.

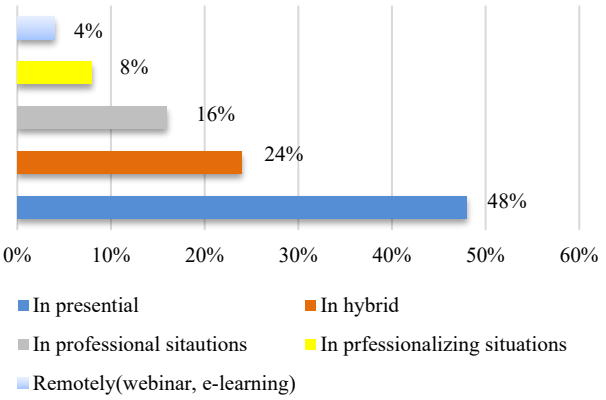

Figure 2. Histogram of Percentages of Ways of Implementing Soft Skills

4.3. Soft Skills Management Activities

The responses collected from student inspectors concerning "Soft Skills management activities" were marked by a predominance of "Work by workshop" with a percentage of 48%, followed by "Work in pairs" and "By seminars" in a tie with a percentage of 16%, and finally "Lecture" with 12% and "Content analysis" with 8%. This choice is supported by D.A. Sousa, who, based on an analysis by the National Training Laboratory of Besthel (1960), clearly demonstrates the level of effectiveness of a teaching method 24 hours after training.

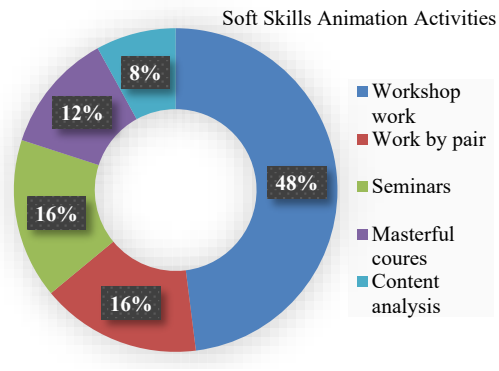

Figure 3. Graph of percentages of Soft Skills management activities

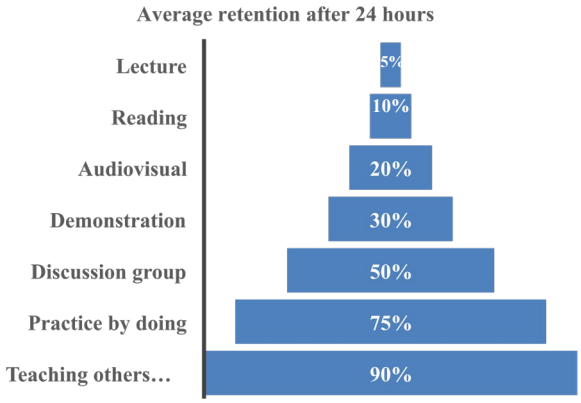

Figure 4. Level of effectiveness of a teaching method, 24 hours after training (adapted from Sousa, 2011)

Group discussion (50%), practical exercises (75%) and using what you have learned to explain to others (90%) have a rate of return that is much more desirable to exploit than lectures (5%), readings (10%), audiovisuals (20%) and demonstrations (30%).

4.4. Soft Skills Learning Methods

Responses to the question on 'Soft skills learning situations' showed a predominance of 'Problem situations' with a percentage of 36%, followed by 'Professional situations' in practical placements with a percentage of 28%. In third place were 'Problem-solving situations' with 16%, followed in fourth and fifth place by 'Complex situations' with 12% and 'Professionalizing situations' with 8%.

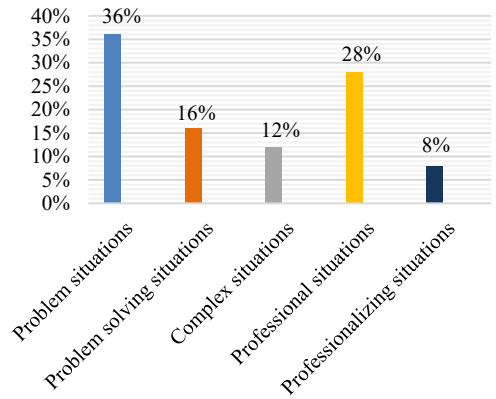

Figure 5. Histogram of the number of Soft Skills learning situations

5. DISCUSSIONS

Our methodological reflection is based on a study concerning the variation of andragogical methods and strategies, within the framework of rational training engineering, to integrate Soft Skills into the initial training of education inspectors. We carried out research by questionnaire on the representations of student inspectors' various disciplines in training at the Education Inspectors Training Center (CFIE).

This research complements certain exploratory and qualitative research, according to the same theme or a similar theme such as the case of the research entitled "How does the variety of educational strategies promote student involvement and the development of their Soft Skills?". And the other transversal, descriptive and qualitative research which has the triple objective: 1) identify and describe the different effective professional tasks and duties of the "expert" educational inspector; 2) contribute to the development of an inspector competency framework; 3) deduce the real training needs of inspectors [17, 18].

The results of our exploratory and descriptive research concerning the four main questions (described in the Results section) revealed varied percentages depending on the importance of the different criteria, for this we are advancing the following discussions:

The first choice of practical course with 52% in the question "Planning of Soft Skills in training of education inspectors" (Figure 1) reflects the practical aspect of the acquisition and development of "behavioral skills" in predominantly professional training (practical internships) and in Practical Situation (MSP) in the first place, followed by the programming of soft skills in "modules" with 24%, just as this also applies to other subjects to be taught and skills to develop. It is often through practice, experience and personal investment that an individual becomes aware of the extent of their skills and learns to value them. Skills can be acquired or developed in all areas of social and professional life; it's a matter of education and training [19].

An approach to Soft Skills based on transversal research in cognitive, psych cognitive and socio-cognitive sciences and the business world, in which several authors have proposed complementary approaches, but a common vision according to which Soft Skills are acquired through experience, social interaction and individual reflexivity [20]. To achieve this objective, it is necessary to follow the steps of a more rational training engineering taking into account the varied andragogical situations programmed with the integration of Soft Skills for the benefit of student inspectors.

The answer to the second question concerning the item relating to "Implementation methods" (figure 2.), the results show that there is good acquisition and increased development of Soft Skills. Although the Corona Covid 19 pandemic has influenced all initial and continuing training and requires distance learning alongside face-to-face training (48%), this is justified by the decree relating to distance education in Morocco n°2.20.474/2021 and sets out the rights and obligations linked to this type of

learning, hence the need to develop distance learning in addition to face-to-face teaching (Hybrid training 24%) [21]. Without forgetting that in search of lifelong training, e-learning (distance training) is a means which allows trainees to perfect their level of technical and managerial skills, and to improve their employability [22].

But in all cases, there always remains the presence and assistance of a face-to-face accompanying trainer, much in demand when learning life skills. The analysis of certain educational experiences in language learning allows us to conclude that tasks using active teaching methods are the most interesting for students. With the introduction of distance learning, students have new opportunities to study subjects at an appropriate pace, acquire skills and abilities not only in traditional ways, but also using simulators and have 24-hour access to educational materials. The difficulties that arise when performing certain tasks are imposed, in some cases, both by the poor language training of the student himself and by the lack of help from the teacher after completing the tasks individually. Hence the importance of hybrid teaching. the language (communication) training of the student himself and the lack of assistance from the teacher when completing the tasks individually [23].

The analysis of the results collected from student inspectors concerning "Soft Skills management activities" (figure 3.), shows that the choice of "Workshop work" with 48% reflects the importance of this activity in andragogy (teaching of adults) in the acquisition of life skills, which requires working in small groups while emphasizing the reflective aspect and role play between group members. Without forgetting to pass on and share your knowledge with other members of the group. This choice is supported by D.A. Sousa, who, based on an analysis of the Besthel National Training Laboratory (1960), clearly demonstrates the level of effectiveness of a teaching method 24 hours after training [24].

These problem situations serve as a basis for the development of didactic situations promoting the development of the skills of student inspectors. In this context, prior knowledge and professional behavior become essential tools for problem solving. These new approaches approach learning through the process of problem solving and critical judgment, rather than through answers to questions that the student does not ask [25]. Furthermore, Soft Skills courses must take place in the form of practical workshops intended to assign participants to activities/tasks allowing them to get to know each other (in pairs 16% or with other members), or by organizing seminars (16%) on the theme of the integration of Soft Skills, in order to develop their skills, practice and simulate:

- Improve organization for better time management
- Develop emotional intelligence
- Improve communication skills
- Strengthen self-affirmation
- Cultivate a positive and open mind
- To manage stress
- Strengthen self-esteem and self-confidence
- And develop a spirit of cooperation [26].

In andragogy, adults learn in the moment, participate voluntarily, pursue personal goals and are internally motivated. They constantly adapt and enrich their knowledge. They have comprehensive, diverse and highly integrated experience; They demonstrate an interest in listening and sharing their knowledge and experiences with different members of a group of learners. This is in high demand in the acquisition and development of Soft Skills [27].

Answers to the question on "Soft Skills learning situations" (figure 5.) The relevant objective in the contemporary educational process is the implementation of a case study through problem situations and professional situations by:

- The emphasis placed by modern education on the development of professional skills, soft skills, hard skills, abilities and personal qualities.
- Changing requirements in terms of employee qualities, who must be able to respond quickly to emerging problems, be coherent and efficient.

A case study method is a method of analyzing professional tasks and situations [28]. These results show that the choice of Situations proposed for skills learning depends on the nature of the skill to be developed. In this respect, the student inspectors interviewed did not fail to point out that the activities they prefer most are those geared towards problem situations (36%) to be solved in groups and professional situations in practical placements (28%).

It is these moments of sharing and exchange that they find most conducive to interactive activities in initial training. Furthermore, the tracing and organization of the learning path for skills in general and Soft Skills in particular must necessarily go through educational engineering and training engineering, while respecting its successive stages.

6. CONCLUSION

From the results of this research, we can deduce that the programming of life skills or Soft Skills, in the initial professional training course of education inspector students in Morocco, according to a pedagogical engineering which emanates from an engineering of quality training, through andragogical methods and strategies, namely: Planning methods, Ways of implementing Soft Skills, Animation activities, Learning situations. This training engineering, which aims to be the most rational, the most appropriate and the most adapted, is an urgent necessity for good professional training.

The evaluation of the Impact of training engineering on the initial training of student inspectors and on educational supervision in general, encourages us to evaluate the overall training plan of the establishment to check its quality, progress and the achievement (or not) of the set objectives. This evaluation can be done on a quantitative level (number of hours completed, cost of training, return on investment, impact on productivity and easy professional integration), as well as on a qualitative level (achievement of expected objectives; professional skills acquired; learning methods, methods and styles chosen.

This is also the time when the trainer (training engineer) will check the results against the set objectives. It must then, in an iterative approach, give suggestions for improvement for future initial professional training projects. Training engineering is therefore a profession in its own right, essential to the successful implementation of training. Both different from educational engineering, but just as complementary, training engineering allows us to have a long-term and global vision of training objectives, and the means implemented to achieve them [29].

In addition to the varieties of andragogic methods and strategies, the increase in time devoted to programming Soft Skills alongside Hard Skills and the availability of specialized and qualified Human Resources in behavioral skills training, allows education inspectors to succeed in their work and obtain good results, and good performance in their act of educational supervision.

7. RECOMMENDATIONS AND PERSPECTIVES

7.1. Recommendations

7.1.1. Variety of Andragogical Methods and Strategies for Quality Educational Supervision

From the results mentioned previously, it appeared that the variety of andragogical methods and strategies had enabled student inspectors to become more involved in the educational supervision activities offered as part of their initial training. This diverse educational experience was beneficial for the student inspectors. It would therefore seem more appropriate to use a variety of methods and strategies to benefit from the advantages of each of them [30].

Specify that teaching activities must be diversified to give students the opportunity to make choices and break the routine. It has been shown that this variety of andragogical methods and strategies stimulates the involvement, dynamism and curiosity of student inspectors and has a positive effect on their motivation to learn, identify and develop their Soft Skills. Tutoring sessions (TD), workshops, professional situations, internships, etc., constitute an opportunity to be seized to develop their behavioral skills, and to deal with the anxiety linked to communication with peers, role plays and other situations with teachers that they will supervise later. So, we invite trainers to use this method to integrate Soft Skills into inspector training.

7.1.2. Consolidate the Trainer/Student Inspector Relationship

It should be emphasized that it is not enough to adopt new and innovative andragogical methods and activities and hope to miraculously obtain positive results and feel immediate progress in the learning of soft skills and the motivation of trainee inspectors. This is work that is built over time and requires real commitment from the student inspectors, the teacher-trainer and the supervising inspector. The same goes for the teacher/student relationship, which plays a crucial role in determining the atmosphere in the class during activities. For this reason, it is important that the teacher-trainer be open-minded and listen to students, while instilling confidence in them. It emerges that the involvement and commitment are double and go in both directions.

Our research allowed us to identify a positive correlation between the variety of andragogical methods and strategies and the degree of involvement and interest of student inspectors. These innovative activities allow students to be involved (improvisation, personal development tests, role and perception games, interactive workshops, group work and discussions, etc.). We assume that any activity which encourages student inspectors to interact and develop skills of reflection and analysis of practices can be considered innovative, as underlined by J.P. Bechard [31]: "pedagogical innovations are often described as anything that does not relate to teaching from the classroom.

He agrees that it is high time to seriously think about these skills to harness the employability of future university graduates [32]. This will be implemented in future years as part of the student pathway at all open access establishments and has been dedicated to developing students' skills in soft skills, foreign languages and IT [33].

7.2. Perspectives

Finally, we are opting for a research perspective which could enable us to cross-reference the variety of profiles of trainee inspectors in initial training in the different cycles: Primary (Bilingual and Amazigh), Secondary (three departments: Sciences, Languages, Human Sciences) , and those responsible for Financial Services, in order to better identify training engineering and the determining factors which act on the choice of methods for programming Soft Skills, to subsequently detect their identification, their development during training and their evaluation once these students are practicing their profession as education inspectors.

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