

# Soft competencies developed in students as the result of the implementation of the 4td curricular strategy at the Universidad Autónoma del Noreste\*

## Topic line: Employability practices

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### Abstract

The present investigation shows students' perception of the soft-skills they have developed throughout their school journey by applying the four teaching techniques (4td) included in their curriculum as the core to promote in students and future graduates learning for life and employability. It is a strategy embedded as a part of the academic quality project, established in the Institutional Development Plan UANE (2013) and implemented since 2004.

4td is a curricular strategy whose purpose is to promote students' generic skills to support them in their daily life as human beings. 4td refers to the application of active teaching methods such as Collaborative Learning (CL), Problem-Based Learning (PBL), Project-Oriented Learning (POL), and Case Method (CM) that relate objectives in the curriculum to problematic situations of professional practice or life itself. The teachers' essential work is to plan the subject with cases, scenarios, projects, or collaborative activities to transform information into useful personal and professional knowledge.

Research with a qualitative approach. A population of 988 students who completed their subjects with 4td in two different semesters was studied. The technique used for collecting the information was focus groups through an

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\* This chapter is the result of the EMLEAP research project, co-financed by the ERASMUS program +. The support of the European Commission for the preparation of this publication does not imply acceptance of its contents, which is the sole responsibility of the authors. Therefore, the Commission is not responsible for the use that may be made of the information disclosed here.

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open-ended question instrument. The information was analyzed through content analysis using the MAXQDA tool.

Results highlight 1642 comments, of which 200 (12%) report having developed higher-order cognitive skills; 971 (59%) leadership skills and 471 (29%) refer to attitudes and values. Mainly they strengthened interpersonal skills related to communication, teamwork, emotional intelligence, and leadership, values such as respect and responsibility.

Derived as a conclusion, the 4td curricular strategy is sustainable over time. It represents one of the academic quality elements in the institution for promoting learning for life and the employability of our students.

**Keywords:** Soft competencies, employability, curricular strategies, active learning.

*First submission:* 19/11/2020, *accepted:* 27/11/2020

*Available online:* 02/07/2021

The purpose of the investigation is to analyze the soft competencies developed by undergraduate students as the result of the implementation of the 4td curricular strategy at the Universidad Autónoma del Noreste. Also, to describe students' perceptions of the attitudes, values, and soft competencies: interpersonal, intrapersonal, and cognitive, they developed during their school journey applying the four teaching techniques (4td).

The context involves the eight campuses of the university in Saltillo, Nuevo León, and Tamaulipas. The study population comprises undergraduate students who applied the 4td (PBL, CM, CL, POL) in their subjects throughout the August-December 2019 semester during their school period.

#### **4td as a curricular strategy**

4td is a curricular strategy because it originated in the academic and pedagogical model of the University and impacts 45% of the subjects (16 of 66) of the undergraduate study plan; hence, students take two subjects per semester with a teaching technique.

Pedagogically, the process begins with teachers. They allow themselves to learn a different way of teaching, where planning and implementation play a transcendental role that leads to curricular learning and the development of competencies.

The 4td implementation model considers several stages: (a) instructional

planning or design, (b) implementation, (c) teacher certification, and (d) evaluation and feedback. It is essential to recognize the development of software to document the evaluation of the teaching performance carried out by students and the feedback that the Assistant Principal gives to the 4td teacher. Figure 1. 4td System shows the system that incorporates the most outstanding elements of the program.

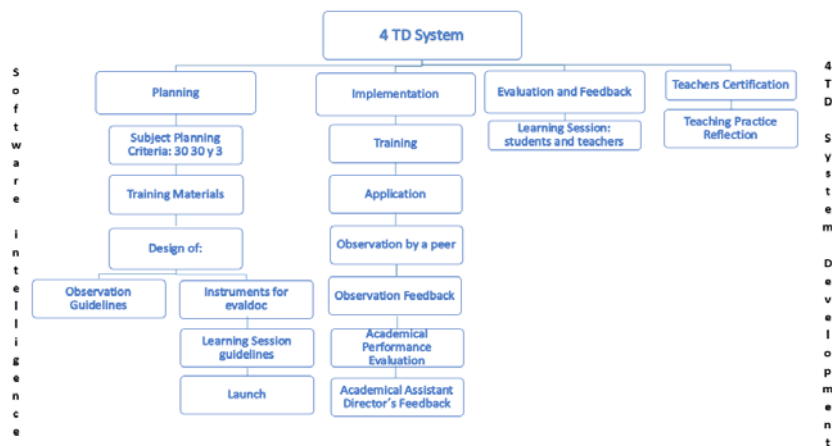


Fig. 1 - 4td Model. Source: Own elaboration

Considering that 4td requires extra time for teachers to plan cases, scenarios, real projects (agreement with the company that is the client) and collaborative activities, and for reviewing and giving feedback of tasks and activities carried out by students, the University rewards with an economic stimulus of an additional 20% of their fees as long as they accomplish a minimum average established for the evaluation of the teaching performance, in addition to three conditions for CL, CM, and PBL: (a) the application of the technique in 30% of the program of the subject, (b) in 30% of the time of the subject and (c) in at least three activities. For POL, it is applied with a real project for a company or institution throughout the entire subject.

4td is an excellent curricular strategy at the institutional level. It is integrated into academic and financial planning with budgetary allocation for teacher training and recognition of their work for instructional design, application, and evaluation.

## What is 4td?

4td are teaching techniques that promote the development of life skills

and employability. The teacher's role is essential to plan, implement, and evaluate the progress of students in their learning and development of competencies through cases, problems, projects, or collaborative activities. We define each of these techniques below:

Problem-based Learning (PBL): a technique that confronts the student with a problem related to professional practice. The problem is written using a scenario with little information (as it happens in real life) in order for the student to present a work plan, investigate and present alternative solutions.

Case Method (MC): a technique that presents real facts about a case. The student requires obtaining information through critical questions, analyzing the information, reflecting, and socializing when proposing alternative solutions in a small team to make decisions. The student must know if there is something to fix, some action to be taken, some trends that must be corrected, or should be encouraged (Wassermann, 1994; Llano Cifuentes, 1998).

Project-oriented Learning (POL): a strategy that brings the real world closer to the academic context through the execution of a project to provide solutions to common everyday problems (client) related to the subject. The research process through which students build their knowledge, and generate products or services to clients' real needs, is especially relevant.

Collaborative learning (CL): a technique that develops social skills, individual responsibility, and positive interdependence, and negotiation skills for better performance of the student in the professional field.

## **Importance of the 4td**

The techniques allow students to connect with their environment to become aware that they live in a society, and thereby learn more carefully about the problems involved and the changes or transformations it requires.

They are important because students associate uncertain scenarios, cases, or situations of professional practice, and work on interesting and motivating topics of their professional field to link theory with the practice of their profession. Students are alert to experiment and develop cognitive and social skills by working as a team, collaborating in various tasks, learning the virtues, and lasting dispositions such as responsibility, commitment, tolerance.

The 4td strategies promote meaningful learning centered on the experiential and situated approach, allowing the student to build knowledge in real contexts and develop reflective, critical, and high-level thinking skills as cognitive, interpersonal, and intrapersonal competencies.

Besides, students develop resources when they relate to workplaces. Tomlinson (2017) calls it cultural capital, that is, the knowledge of the habits, customs, language, and practices that the field professionals use in their labor interactions. This cultural capital is conceived as “the formation of culturally valued knowledge, dispositions and behaviors aligned to the job market that the graduate seeks to enter” (p.343). The resources that students develop through the pedagogical strategies of 4td allow them to add greater cultural awareness and confidence to integrate into organizations for future work.

Within the psychological capital, Tomlinson (2017) highlights resources such as resilience and adaptability, referring that students can handle diverse situations, with proactive strategies to face challenges, where openness is necessary to have professional adaptability. As adverse situations, he refers to the capacity of risk tolerance, that is, of resilience, by pointing out that students are “open to novel experiences... resist pressures in an uncertain and volatile climate and know how to handle stress” (p.347), which undoubtedly refers to the ability to adapt to face challenges and have self-control.

These qualities are strengthened by the intensive modular system of the University, which consists of taking 3 subjects every 6 weeks, which improves the student ability to solve problems and face complex, uncertain and volatile environments, experience what is like to live real pressure of daily work and learn to manage stress.

These techniques are based on the situated learning approach (Díaz-Barriga Arceo & Hernández Rojas, 2002; Ahumada, 2005), with an instructional scheme of teaching that emphasizes the design of the activity and the context for learning. Therefore, it establishes the need for teaching focused on significant educational practices, in which students learn through engaging in the same type of activities that they will face in the exercise of the profession, allowing the student to gradually integrate into the ways of professional work and a community or culture of social practices.

Classical literature comes into force by supporting 4td's pedagogical strategies with active learning methods to base the pedagogical act on an action, as Dewey (1998 translated by Luzuriaga) points out, whose philosophical position is based on pragmatism and assumes that the true knowledge is that which produces results and experience when man interacts with his environment. Creator of learning by doing and learning by experience, he refers to the need to promote social awareness and tools that present the solution of problems that society poses. In this regard, he points out that “learning through experience is establishing a backward and forward connection between what we do and its consequence” (p. 125), that is, that learning through experience involves training human beings with analytical

competencies about the connections among things, deep and thoughtful observers.

Reflection is fundamental, in this regard, Schön (1987), a follower of Dewey, describes various stages on how professionals pour their knowledge into action, reflect on the action, and reflect on the reflection of action. These stages are part of the competencies that 4td promotes in students through cases, problematic scenarios, real projects, and collaborative activities. These are (a) observation and reflection on the object of study, interpreting the silences of tacit knowledge; (b) stopping in order for the student to think, decode the messages and dialogue internally about what they have done, confirm or refute previous statements and discover if they are on the right path towards reaching the goal or an unexpected result; and (c) finally, verbalizing the description of the experience through communication.

According to the follow-up study of graduates at UANE (2018), the most valued and appreciated competencies for the professional practice indicated by 64.3% of 428 graduates, were leadership 64%, oral communication 63%, solution of complex problems 58.6%, and creativity 44.2%, mainly. These match the competencies that graduates pointed out that “they developed adequately during their school period” (p.10).

UNESCO (1998) in its Declaration It indicates competencies of what is expected from students in their school journey and from future graduates, which is undoubtedly formally established by some educational institutions in their graduation profiles and curriculum, but, he points out, the most significant experience is living it in the teaching-learning process and when teachers apply it in their educational planning. In this regard he declares

Train citizens capable of using the scientific method, analyzing problems and seeking solutions, developing critical sense, creativity, reflection, understanding, communication-socialization, teamwork with one or different cultures, who adapt to new environments, dominate a second or third language, who are well informed, and are capable of socializing and working with people from different cultures (p.9).

For its part, CISCO Systems (2009), describes that the future graduate is expected to be able to develop skills such as

To solve problems and make decisions, have creative and critical thinking, collaboration, communication, and negotiation skills, intellectual curiosity and the ability to search, select, structure and evaluate information; in addition to having the motivation to be an independent, responsible, self-regulating, reflective and self-critical entrepreneur, without ceasing to be a permanent, flexible learner and capable of adapting to change (p.10).

## **What are competencies?**

According to the OECD (2005), a competence is “more than knowledge and skills. It implies the capacity to know complex demands, leveraging, and putting into action psychosocial resources (including abilities and attitudes) in a particular context” (p. 5). They are complex demands because change is the only sure thing in business and social-economic activities, where technology has come to evolve our environment as well as the professional profiles to respond and adapt to the labor market.

Alonso-Martín (2010, quoted in Castro, 2019) conceptualizes competencies as the behaviors that demonstrate human knowledge, skills, attitudes, and values in interaction with others, and in solving personal, professional, or social problems.

On the other hand, the work carried out by the workgroups of EMPLA-AP (2018) financed by ERASMUS on competencies, describes that in order to be considered as such, there must be a capacity or added value acknowledged by society. They conceptualize competencies from the employers’ perspective as “the capacity of a person to perform based on the quality requirements of their corresponding production processes of goods and services” (p. 3).

In México, labor competencies are attributed to the regular performance that characterizes the activities of technical work or trades. On the other hand, professional competencies are oriented towards innovation and complex problem solving, where the management of technological digital resources, problem-solving, among others, have their part, as mentioned by Abreu and De la Cruz (2011)

confusing professional competencies with labor competencies derived from routine manufacturing environments is a case of error. Above all, because computer science, robotics, and process automation have generated a shift in the frontier of human work, today’s society continually reduces manual work and increases intellectual work, aimed at innovation and new knowledge (p. 4).

The University plays the central role in the training of human resources in knowledge, skills, attitudes, and values, that is, in professional competencies to respond to the demands of the work environment; therefore it is important to know their classification.

## **Classification of competencies**

There are many classifications of professional competencies. For this

purpose, the one from the National Research Council (NRC) is presented, who refer to the importance of the curricular and extracurricular challenge in educational institutions because it is demanded in the training of students and future graduates to facilitate performing various roles as citizens, employees, directors, partners, volunteers, and entrepreneurs.

In response to the need for students to participate in helping solve community issues, UANE create several community programs such as UANE WITH CAUSE; NUTRITION PRACTICE; YOU ARE NOT ALONE and involve students to participate in them, to strengthen their civic values and soft competencies, through this programs. This strategy can be considered as an extra-curricular strategy to involve students with society and its problems.

The NRC (2012) classifies competencies in three dimensions: cognitive, intrapersonal, and interpersonal as follows.

Cognitive competencies are associated with the cluster of (a) processes and strategies of thought, (b) knowledge, and (c) creativity, and their characteristics are as follows:

Cognitive processes and strategies: critical thinking, problem-solving, analysis, reasoning-arguing, interpretation, decision making, adaptive learning, and executive functions. Knowledge-related competencies such as supported research using evidence and admission from other sources; information and technological communication; oral and written communication, and active listening. And creativity and innovation skills (p. 32).

Accordingly, the Dictionary of Key Transversal Competencies for Youth Employability produced within the framework of the methodological proposal for job placement; and Alles (2002), classifies competencies as follows:

Cognitive competencies refer to the way of processing information. Some of the indicators in this cluster are research, information management, and use of technological tools, creativity, innovation, planning, organization, information analysis, evaluation, problem-solving, attainment of results, decision making, writing reports.

The attributes that describe them are:

- Creativity: generates ideas and useful novel solutions to problems.
- Innovation: promotes changes based on situations that had not been thought of previously.
- Planning: elaborates plans to achieve the goals considering objectives, actions, resources, time, and follow-up mechanisms.
- Organizing: structures actions and resources to achieve goals in the established time.
- Research: searches and selects information to state and corroborate hypotheses.



- Data analysis: knows the objective of the analysis, the facts or information of the case, establishes comparisons, makes cause-effect relationships, and organizes data.
- Evaluating: assesses areas of opportunity and strengths.
- Solving problems: comes up with ideas of alternative solutions that satisfy the problem.
- Achieving results: takes actions, acts with speed, and a sense of urgency to achieve results.
- Decision making: analyzes various alternative solutions and chooses the one with the highest expected value.
- Report writing: writes clearly, and in an organized way, the structure can be appreciated: introduction, development, and closure.
- Managing information and using computer tools: knows where to look for reliable information using computer tools.

Intrapersonal skills are related to intellectual openness, awareness and ethics at work, and self-evaluation. The competences that comprise it are:

Intellectual openness: flexibility, artistic and cultural appreciation; social and personal responsibility that includes cultural awareness; appreciation of diversity; adaptability, continuous learning, intellectual interest, and curiosity.

Awareness and ethics at work, which highlights initiative, self-direction, responsibility, perseverance, productivity, self-regulation, that is, metacognitive skills including planning, performance, and self-reflection, professional ethics, integrity, citizenship, and orientation.

Positive self-evaluation that is linked to emotional stability, that is, ability to self-monitor, self-evaluate, self-strengthen, physical and psychological health (NRC, 2012, p. 33).

On the other hand, and going into further detail of the attributes in the conceptualization of the competencies, the Dictionary of Key Transversal Competencies for Youth Employability produced within the framework of the methodological proposal for job placement; and Alles (2002), classifies competencies as follows:

Intrapersonal competencies are the abilities that promote self-reflection, permanent updating, and adaptability, in this regard it is noted:

- Self-reflection: reflects on their actions and learns.
- Permanent update: seeks to improve permanently in their areas of personal and professional interest.
- Adaptability: integrates change into their actions positively and constructively.

Interpersonal competencies refer to the cluster of (a) teamwork and collaboration, the core of which lies in (b) social skills whose elements address:

Communication, collaboration, teamwork, cooperation, coordination, empathy, trust, service orientation, conflict resolution and negotiation” and, on the other hand, (b) leadership skills, whose focus is the social skills of persuasion, refers to leadership, responsibility, assertive communication, self-presentation, social influence with others (NRC, 2012, p. 34).

The Dictionary of Key Transversal Competencies for Youth Employability produced within the framework of the methodological proposal for job placement; and Alles (2002), classifies social competencies as follows – interpersonal competencies referring to the interaction with others, they are comprised by teamwork, leadership, adaptability, interpersonal relationship, negotiation, and oral communication.

Oral communication: expresses ideas confidently, opinions, projects, using the appropriate vocabulary, rhythm, and intonation.

Teamwork focuses on collaboration and cooperation with others to achieve common goals, encourages participation.

Emotional intelligence is part of leadership because it deals with interaction, where empathy is essential to connect with the feelings of others, to listen and understand, and to establish an interpersonal relationship based on respect, trust, and openness to generate cooperation and achievement of results.

Tolerance, openness, and self-control: Alles (2004) refers to tolerance as the ability to act “with high performance in highly demanding situations” (p. 61), where time pressure, disagreements, opposition, and diversity predominate in the environment. Tolerance is a much-appreciated virtue, it is a competency of emotional intelligence, as it is also an attitude, since it is a disposition or internal will of the human being.

Leadership: guides the group’s action towards the achievement of goals, inspires by behavior, and anticipates scenarios. Sets goals, follow up, and feedback considering the group’s ideas and their interpersonal relationship. Highlights:

- Adaptability: Integrates change into their actions positively and constructively.
- Empathy: Connects with others’ feelings, listens, and understands.
- Interpersonal relationship: Open-minded, their interactions are based on respect, trust, and cooperation.
- Negotiation: Seeks agreements and alliances versus disagreement (Alles, 2002).

## **Attitudes and Values**

Attitudes and values are the reflections of behaviors that are lived minute by minute, and in this sense, universal values impregnate the actions of

human beings. These are respect, responsibility, honesty, commitment, fairness, and justice.

These values are very much alike to the ones established in the UANE: honesty, responsibility, human development and service.

Attitude is a way of looking at and acting in life that involves emotions and feelings about a stimulus, as well as the idea held about it. Attitude is an action that implies an affective feeling, cognitive, and is projected into the behavior or conduct of human beings.

Attitudes are learned from what is observed in the environment; they are acquired by what is experienced day by day in interaction with others, and they are established as their own through repetition. Sometimes we modify our attitudes and acquire new ones. Prieto (2011) points out that if the behavior is similar to that of others, attitudes are said to be adequate; social acceptance is essential to favor or not such behavior.

Attitudes are part of a broader concept: values, since through attitudes, we envision our values. Values are guidelines or directions. According to Brian Hall (1995 cited in Prieto, 2011, p.6), he points out that values are “internal ideals that give meaning to our lives through the priorities that each one establishes, and that carries out consistently. and repeatedly.”

Values are guidelines that remain in time, such as tolerance, freedom, equality, solidarity, truth. All cultures share them, that is to say, they are universal. They guide value judgments because they can be a reference. Finally, Prieto (2011) mentions that “we have to resolve conflicts through the actions and behaviors of each one of us, behaviors based on values, such as equality, cooperation, truth, dignity...” (p. 7).

## Method

The study was qualitative with a descriptive cut. The population that participated in the learning session was comprised of 988 students who took subjects with 4td during the August-December 2019 semester. The population is shown in table 1 by teaching technique.

*Tab. 1 - Population*

TT	No. of Students
POL	42
CM	227
CL	357
PBL	362
	988

Surveys and focus groups were the techniques used to collect the information. The instrument was open-ended questions to understand students' perceptions. The results of question No. 6 are presented. 6 What skills, attitudes, and values did you develop when you applied the POL, CM, PBL, and CL teaching techniques in your subjects?

The procedure was to summon the students who applied 4td; put together groups according to each technique, apply the instrument for the individual response, and later for the group response.

The data was analyzed establishing analysis categories and codes according to the frequency of the student's answers in the cognitive, interpersonal, and intrapersonal competencies, according to the framework established in the literature.

## Results

The 988 students made 1,642 comments about their feelings regarding the competencies they developed when applying the 4td. Such comments were: 200 (12%) referred to higher-order skills; 971 (59%) to leadership and 471 (29%) to attitudes and values. The techniques that were promoted the most were CL and PBL, as shown in figure 2.

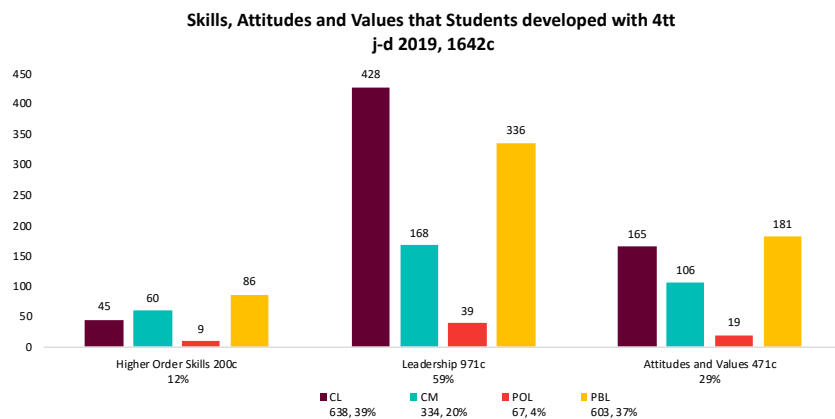


Fig. 2 - Skills, attitudes, and values developed by students. Source: Own elaboration

### Higher-order skills

As a teacher, when applying 4td, they are intentional, and the results

exceed expectations according to what students express. Higher-order or cognitive competencies refer to the ability to organize information, research, create new solutions.

Of the 200 comments, 80% report that students developed the ability to research, analyze data, and solve problems, mainly. The techniques that triggered that were CM and PBL. The students stated verbatim that they achieved:

#### Analyzing the information

*Organizing my project; distinguishing between different clinical cases; analyzing errors in the quality of products.*

#### Investigation

*To be more skillful in finding information.  
Presenting information from research developed based on queries that give vast knowledge that helps with career development and personal level.  
Research and understanding of information.*

#### Creativity and innovation

*Awaken my imagination; making sculptures, models.*

#### Writing

*Handwriting improvement and better writing.  
Writing in general and writing scripts.*

#### Problem-solving

*Learning to create new solutions, thinking outside the box.  
To be more aware of problems, check them, etc.  
Thinking beyond the problem, the consequences that the first solution we had in mind could bring over time.  
Detecting errors more easily.  
How it challenges us to look for the solution with what we have learned, and to correctly face the problems from a different perspective and, in turn, the ability to understand what is expected from us during the presentation of the "problem."  
Being able to solve problems by myself as if I were in a company.  
Detecting problems easier, further development in troubleshooting, and being more accurate.  
I developed the ability to solve problems that will arise in my daily life more practically.*

#### Decision-making

*How to act in certain situations; that in order to make a decision, you have to see the pros and cons.*

#### Use of technological tools

*I learned about various Word programs, and it is something I did not know before.*

*Prepare the designs.*

*Greater ability to prepare teaching materials.*

#### ***Intrapersonal Competencies***

Intrapersonal competencies refer to the ability to look inside oneself to question what we are doing (self-reflection), adapting actions, so that decision-making is favorable and positive in interaction with others.

We include this proactivity and self-reflection competence in leadership, and it represents an area of opportunity to work on because it was mentioned very few times in the students' comments, only 65 out of 971 (6%). The techniques that triggered it were CL and PBL. In this regard, the students stated verbatim that they achieved:

*To suggest.*

*Get out of my comfort zone.*

*Be self-taught.*

#### ***Interpersonal Competencies***

Interpersonal competencies are those that favor interaction to achieve goals such as communication, teamwork, leadership.

Out of the 971 comments, 75% indicate that the students mainly developed emotional intelligence and teamwork. The techniques that triggered it were CL and POL. In this regard, the students stated verbatim that they achieved:

Oral communication

*I can explain a topic, improve the presentation, and be clearer in what I say.*

*Listening to my friends and better sharing my ideas and opinions and those of others.*

*To be able to express myself better before others and start using the technicalities of the field.*

*Learning to listen to others' opinions and contribute a little from everyone, realizing what we are good at and what we are bad at in order to use our strengths and weaknesses for our purpose.*

*Listening to the different points of view and respecting them because we can rescue something from any opinion.*

### Teamwork

*Get all the team members' skills together and reinforce what is complicated individually to support each other.*

*We organize, we all contribute our part*

*The effort of each one of my classmates, and how each one performs, and the different opinions of each one.*

*To be willing to work with other people.*

Leadership: the leader guides the action of the group towards the achievement of goals. Behaviors that add to leadership derive from interaction with classmates, adaptation, working under pressure and achieving results, such as those expressed verbatim by the students, who learned:

*Knowing what the people involved were thinking and the reasons to understand why they do it, to find solutions.*

*Sharing ideas and accepting those of others.*

*Knowing how to carry out projects with other people.*

*Adaptation.*

### Working under pressure and achieving results

*To be able to work under time and in a fast way*

*Working faster and in order as well as knowing how to manage time.*

*Doing work on time and handing it in on time*

*Working differently, fast and with much learning.*

*I concentrated more and tried to draw my conclusions*

*Working under pressure.*

Emotional intelligence is part of leadership because it deals with interaction, where empathy is essential to be able to connect with the feelings of others, to listen and understand in order to establish an interpersonal relationship based on respect, trust, and openness to generate cooperation and achievement of results as key elements of interaction in leadership.

Four hundred fifteen (415) comments refer to the fact that students developed emotional intelligence, highlighting skills such as tolerance with 47% and empathy with 29%. The techniques that triggered it were CL and PBL. The students developed empathy, openness, self-control, and self-confidence. In this regard, they pointed out:

### Empathy

*To be supportive and to have a good attitude and motivation.*

*Understanding my colleagues*  
*That we always have to help each other, no matter who it is.*  
*Understanding, knowing that not everyone sees the same problem in the same way, and getting to know other points of view.*  
*Looking out for others, helping them whenever possible.*  
*The value of fellowship.*

#### Trust

*Losing fear and nerves when speaking in front of the rest of the group.*  
*I was very shy, but the teacher made us read and present, and if we were wrong, he only respectfully corrected us.*  
*My attitudes changed to being more outgoing when giving my opinion in class.*  
*I improved my public speaking since I am very nervous.*  
*Helping me to become less nervous with my classmates and helping me learn my classes better.*  
*Losing the fear of public speaking.*

#### Tolerance, openness, and self-control

Tolerance can be known as an attitude and value, as a competency of emotional intelligence, and it consists of respect for the opinions of others, attentive listening, the addition or integration of ideas, patience, acceptance of divergent opinions, their assessment, and the humility to learn from ideas from others, stand out among the students' comments on tolerance. They textually refer to:

*Respect for each of my classmates' opinions, having to integrate everyone even when their abilities or mine were deficient; understanding and analyzing my classmates' opinions, a lot of patience; I had to develop patience because of activities that had to be done in a certain time and it was difficult to organize so many ideas; learning to listen to other classmates' ideas, knowing how to accept others' opinions and contributing a little from everyone; listening.*

*Respecting ideas and executing strategies that adapt to all ideas.*

*Rating comments trying to improve things that go wrong and redoing it better another time.*

*Being respectful when our colleagues contribute an idea.*

*Learning from them, as some have different ideas towards others.*

*Listening to different points of view and respecting them because something can be rescued from any opinion.*

*Listening and respecting the opinions of others so that they will respect yours.*

*Openness towards the ideas of my classmates.*

*Moreover, self-control, I developed better emotion management.*

#### **Attitudes and Values**

Out of the 471 comments, 80% report that students developed respect and



responsibility. The techniques that mainly triggered it were CL and PBL. Apart from the previous ones, the fundamental values that they indicated were commitment, equity, justice, gratitude, and service.

## **Conclusions**

Soft competencies are the sum of demonstrations of knowledge, skills, attitudes, and values when interacting with others while solving a problem. It is real knowledge because it produces results and experience (Dewey, 1998), given the interaction with its environment. Competencies do not lose validity and they transcend time. They are declared by classical authors such as Dewey, Shön, UNESCO - Dellors, Fantini, and contemporary authors: CISCO, National Research Council, Tomilson, among others.

In this sense, academic work at UANE is shown through curricular actions to promote routes that strengthen learning for life, employability and job placement through training processes by teaching, and valued and appreciated learning for the professional practice, as indicated by students and it is demonstrated in the graduate monitoring (UANE, 2018).

The learning sessions with the students provide feedback on the academic quality strategy by monitoring the development of competencies and promoting reflection (Shön, 1987) on their performance and learning.

## **Challenges and Implications**

4td as a teaching strategy is viable and is sustained because there are intention, approval, and conviction that arises from the Chancellor to the Academic Directors and Assistant Directors who are in charge of operating the strategy.

For applicability, it is recommended to have semester planning of subjects and teachers. Selecting teachers who are committed and willing to learn is a key ingredient since it involves designing activities to be carried out by students, which entails investing more time than regular.

When the technique is implemented in the class, peer observation is necessary in order to improve the areas of opportunity observed.

At the end of the course, students evaluate the teacher's performance. It is paramount that the results obtained be shared with the teacher so that the next time they apply the technique, they can get a better evaluation of their performance and, above all, learning by the students.

At the end of the semester, it is necessary to systematize students and teachers' reflection as a means of feedback for teaching practice, since this leads to improvements in teacher training and implementation in class.

The teacher training program in 4td can be enriched in teaching performance, considering the areas of opportunity from the students' perspective. Providing support from the Academic Assistant Directors, from the selection of teachers who can apply 4td, to the feedback of their practice.

One of the challenges is to train all Academic Development coordinators in this 4td strategy to live it, to have the experience and lead the process; in addition to share the operational guidelines of the strategy in the digital platform and include the topic in the directors' working meeting agenda for follow-up before starting and concluding each module during the semester.

One of the limitations is the personnel turnover who coordinates the strategy on campus, which is why it is necessary to train whoever occupies the position as soon as possible. Due to the number of students and situations that arise in the students' academic trajectory, the reaction is often slower. Addressing this situation may include building and sharing the strategy's operating guidelines on a digital platform, including the topic for follow-up on the agenda of the directors' work meetings before starting and concluding each module during the semester.

4td as a teaching strategy can be replicated in any context. The important thing is that teachers have professional experience and creativity so that they can design scenarios, cases, collaborative activities, and projects related to the profession's practice, making those problematic and uncertain situations that the future graduate will face attractive.

At UANE, our teachers profile stands out for their professional experience, since more than 80% work in their professional field.

The relation with companies or institutions is of utmost importance so that students can develop projects given the problems experienced in the social or productive environment.

It is essential to have financial support mechanisms to recognize the work of teachers at the end of the course. For this purpose, it is required to establish it as an institutional strategy to be considered in the annual budget. Additionally, several internal criteria need to be considered, such as the teacher's evaluation and the contribution of the subject with technique in the development of the students' soft competencies. At UANE it is a successful strategy, also because of the additional 20% fees award established to 4td teachers.

## **Acknowledgments**

To the Chancellor of the Universidad Autónoma del Noreste, Jorge

Verástegui Saucedo, who supports the validity of the 4th curricular program as a critical tool to trigger the development of soft competencies in high school and undergraduate students. To Adán Cabrera, who since 2004 developed the technological information system so that students can evaluate the performance of teachers and integrated it into the University's academic system. To the Academic and Development Assistant Directors of each campus who operate the model; to the Campus Directors and Chancellor's Office for directing the strategy as a curricular, pedagogical element of recognized academic quality at the University.

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