

# Emotion versus Cognition in Teacher Workplace Learning: A Case Study

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## **Abstract**

The purpose of this paper is to examine the interaction between affective and cognitive responses to the work realities as demonstrated by an academic teacher in his professional setting. A case study was designed to explore this psycho-cognitive phenomenon in context and to collect data, the source of which was a record of observations and judgments formulated by the teacher over an extended period of time. The material was analyzed statistically and descriptively to address three research questions about the range of emotions triggered by the participant's daily duties, the nature of self-evaluative comments in relation to the teacher's expertise, and the influence of controlled reflective interventions on his behavioral patterns. The study results support the assumption that working in higher education presents an emotional challenge which can be effectively managed through systematic cognitive processing. The teacher's affective responses to work became more transparent while the duration of his negative moods decreased. Although limited in its sample size, this study contributes to the existing literature on expert teachers and their emotion management skills. Its novelty lies in the approach that assists the application of cognitive strategies, such as problem-solving, inductive logic, or evidence review, to formulate informed statements about external or internal reality and to utilize the new knowledge for adaptation purposes. It is proposed that the structured practice of examining one's affective behavior should be an ongoing process and a valuable learning tool for faculty, forming an essential part of quality assurance mechanisms in all higher education institutions.

**Keywords:** expertise, higher education, professional judgments, reflection, self-regulation

## **1. Introduction**

Higher education institutions around the world develop internal strategies to monitor and improve the quality of instruction they offer and the scholarly work their faculty engage in. In this way, they fulfill their social obligation to provide superior expertise and human capital. Regardless of its prestige, an academic career involves emotional labor, as educators are expected to interact and pursue their professional goals while maintaining strict control over their emotional states. Their role, after all, is to cultivate and promote leadership excellence,

which involves communicating optimism and confidence. Undoubtedly, in order to present a positive attitude, practitioners need to develop the ability to process potentially disturbing feelings and transform them into a valuable learning resource. This may pose a challenge even for experienced, high-status professionals. Academic teachers have been under-researched in this regard. There is limited evidence about their emotional, reflective, and self-regulatory characteristics. Consequently, our understanding of the impact of affective thoughts on the application and development of domain expertise remains incomplete.

This research provided insight into the emotional aspects of work in academia. Although the study was limited to one faculty member, his determination to recognize and understand a wider range of emotions triggered by daily teaching situations provided ample data to test three hypotheses about the relationship between emotions and cognition in higher education.

## **2. Literature review**

### **2.1 Emotions in learning**

The long-identified interplay between the affective and cognitive faculties of the brain supports the constructivist view of learning. This perspective posits that mental representations of the world are constructed by individuals through their interactions with the environment, based on their prior understandings, and influenced by their psychological make-up, including inclinations, sensitivities, moral principles, and attitudes (Inayat, 2022). If we agree that human cognition is, to some extent, informed by unfiltered thoughts that arise in response to daily events, it is reasonable to assume that a comprehensive examination of these thoughts will enable the identification and addressing of inconsistencies in one's existing schemata. A strong dependence on impulsive reactions within the situational context suggests their unstable and therefore insubstantial nature (Brown & McConnell, 2009). However, there is evidence that emotions play an active role in learning, especially in workplace learning (Koole, 2009; Seo & Barrett, 2007; Flavell et al., 2002). Defined as reactive events in themselves (Nairne, 2000), they precede and influence conscious processing. Their accurate identification is, therefore, vital for the effectiveness of subsequent reasoning operations and knowledge actualization (Keefer, 2013; Gross, 1999; Goleman, 1998).

Understanding emotions, as Kahneman (2011) suggests, is a goal-oriented activity that promotes rationalizing behavior and thoughtful insights into decision-making. On the other hand, it presents significant intellectual challenges. Highly distressing, unexpected, or puzzling circumstances can evoke intense emotions that capture attention but also lead to tension and cloud judgment. While some individuals find it compelling to reduce cognitive dissonance by carefully analyzing and reflecting on problematic situations, others prefer to disconnect, forget, ignore, or distort what disrupts their psychological equilibrium. Pollard (2005) argues that learning, which involves the deliberate analysis of one's experiences, begins with the analysis of the emotions produced by these experiences. This not only engages one's cognitive abilities, such as heightened focus, efficient retrieval of knowledge

from long-term memory, and logical thinking, but also requires a level of open-mindedness and maturity, all of which account for individual characteristics.

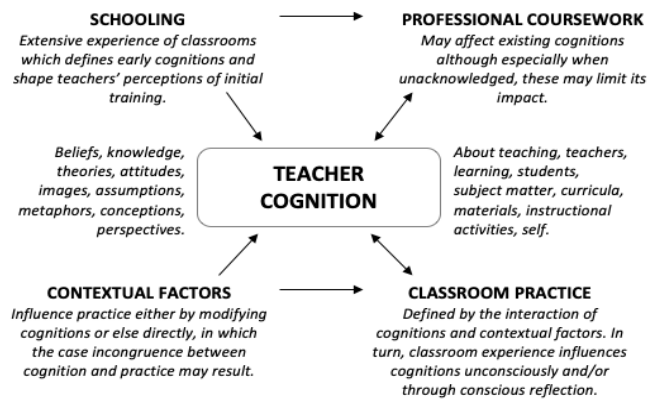
## 2.2 Affective dimension of expert performance

A cognitive perspective on expertise acknowledges that proficient practitioners, including teachers, exhibit extensive and hierarchically organized domain knowledge, a strong capacity for pattern recognition, and well-established action/reaction schemas (Gosh & Gilboa, 2014). Concurrently, it conceptualizes expertise as an ongoing learning process, in which the increasing automation of mental operations frees up cognitive energy that experts then re-invest in problematizing and evaluating daily professional matters for a more comprehensive understanding (Tsui, 2005). Mastering the affective dimension of work is crucial for successful performance because emotions, which are integral to our selves, can either facilitate or hinder information processing. As a result, they can significantly influence the nature, scope, and relevance of our specialized knowledge and behavior (Teng, 2017; Zawadzka, 2004).

Across domains, professional development is considered a fundamental component of expertise. In addition to continuous knowledge and skill acquisition, it encompasses aspects of mental growth such as emotion management and self-inquiry. Research has shown that intense emotions, when effectively managed, do not hinder decision-making processes. On the contrary, they lead to more effective professional decisions (Seo & Barrett, 2007). Mielke (2019) emphasizes that feeling dissatisfied with about one's performance or work circumstances can be beneficial, as long as it is channeled purposefully toward progressive improvement. From a cognitive perspective, redefined concepts, advanced heuristics, elaborate metaphors, or alternative/remedy action plans might all constitute developmental changes. These changes represent new meaningful relationships established as a result of higher-order operations on existing mental representations. Indeed, self-directed explorations maximize opportunities for expertise growth as they serve as a valuable self-regulation tool (Fridland & Stichter, 2021). Chi (2011) raises concerns about a lack of individuals among professional elites who question the basis of their actions and thoughts, particularly in situations where information processing can be easily contaminated, such as during upsetting or surprising events.

In teaching, as proposed by Borg (2006, see Figure 1), cognition is a complex combination of theoretical knowledge acquired through initial training programs and a variety of assumptions and beliefs about teaching-related issues, influenced by highly individualistic, and often emotion-filled, instructional experiences. Studies have shown that attempting to isolate social, contextual, and psychological constructs as sources of professional orientation only offers a limited understanding of their distinct impact on teaching strategies and their interpretations, as these constructs are not isolated in educators' perceptions (Akbari & Dadyand, 2011; Gathbonton, 2008; Meijer et al., 2001; Sato & Kleinsasser, 1999).

Figure 1: Formation of teacher cognition



Source:(Borg, 2006, p. 283)

David Tripp's (2012) action research project revealed that teachers who were involved in diagnosing critical classroom situations struggled to analyze the available evidence and to articulate their implicit specialized knowledge. Furthermore, it was discovered that some practitioners' expert judgments about the class circumstances were found to be statements reflecting their personal and inherently biased viewpoints. For example, a young student who consistently turned in incomplete homework was seen as lazy by an experienced teacher and consequently unfairly penalized on a regular basis. The instructor claimed that homework was necessary for learning, although she could not explain how covering only six out of ten entries in an assigned exercise would adversely affect the boy's learning process. Intensely annoyed, she never attempted to understand the reasoning behind his behavior or her own until she was closely questioned about it. The direct source of frustration remains unknown in this case. Was the student's insubordination the only prompt for her state of mind, or were there other contributing factors?

Research findings indicate that disapproval and negativity are pervasive in educational settings due to a number of factors, including work overload and various pressures, obligations, expectations, and appraisals, which are commonly cited (William et al., 2015; Day & Gu, 2010). Mid- and late-career teachers often show signs of burnout, anxiety, or chronic depression (MacIntyre et al., 2019; Calogero et al., 2019). Concurrently, studies reveal that senior educators are rather reluctant to critically examine their own practices and attitudes. By contrast, they tend to become self-congratulatory about what works for them and attribute failures to forces that go beyond their control (Tripp, 2012; Tsui, 2003; Hargreaves, 2003). A responsive class, for instance, is likely to receive praise for the well-chosen content and effective classroom procedures, while an unresponsive one might lead to

dismissive remarks about learners' ignorance or nonchalance, if not disrespect. Wysocka (2003) hypothesizes that teachers' excessive confidence accelerates the formation of personal systems of theories and assumptions when paired with their inadequate professional competence and awareness. The postulate that limited expertise in veteran educators can paradoxically boost their unjustified self-assurance, on the one hand, and result in mental collapse, on the other, is bold yet thought-provoking. Gherardi (2000) argues that one's psychological well-being is seriously threatened if new knowledge is not continuously extracted through emotional and rational processing.

### 2.3 Self-regulatory strategies

Bereiter and Scardamalia (1993) conducted a study on teachers as writers and noted a significant distinction between true experts and what they termed "experienced non-experts." The former willingly viewed their everyday tasks as opportunities for growth, actively pursuing deeper professional insights and innovative solutions instead of relying on autopilot. It is widely acknowledged in the literature that expert teachers engage in uncovering and integrating available sources of knowledge, including their socio-emotional competence, to identify the factors influencing the system within which they operate, as well as their daily perceptions, diagnoses, and didactic decisions (Tripp, 2012; Bransford & Schwartz, 2009; Tsui, 2005; Golombek & Johnson, 2004; Freeman, 2002). Furthermore, the heightened situational awareness enables them to effectively regulate their emotional responses. According to Fredrickson's (2001) broaden-and-build theory, this involves transforming the constraining impact of negative thoughts into valuable professional experiences that promote teacher well-being. In Gkonou and Miller's (2020) study, experienced educators in American and British higher education institutions highlighted the ongoing "configuration of emotion-based knowledge" (p. 147) as a result of their conscious reflective efforts. More importantly, the study participants tended to interpret their ability distance themselves from affect-driven situations as evidence of expertise. Neuroimaging studies on emotions have concluded that inner tensions can be controlled through reasoning, distractions, visualizations, response pre-arrangements, and other intelligent self-regulation strategies. These strategies aim to "command" the unstructured stream of affect and "override" impulsive reactions (Koole, 2009; Gross & Thomson, 2007). It takes time, mental effort, willpower, and consistency to become a master in any discipline. Extensive occupational experience alone does not make someone an expert if other conditions are insufficient. Kumaravadivelu (2003) observes that only teachers who effectively collect data and use self-regulatory strategies can freely control the context of their classes.

Reflection has long been recognized as a form of cognitive intervention that promotes workplace learning and emotion management. It manifests through the recollection, analysis, synthesis and, most importantly, evaluation of one's interaction with the environment. Focused on adaptation, reflection should have a confrontational character and "demystify" our professional identities (Zimmerman & Schunk, 2011). This can be achieved by perceiving events in which we participate, including highly disagreeable or ecstatic occurrences, as lessons to learn from. A study by Gabryś-Barker (2012) demonstrates that the

capacity for reflection is developmental, and that systematic practice enables pre-service teachers to significantly enhance their situational judgment skills. It is reasonable to assume that in the more advanced stages of their career, educators have the ability to make well-rounded observations about their agency and emotional capital, or they can choose to work toward better self-efficacy. Tripp's (2012) review of professional judgments made by novice and senior teachers suggests that they tend to prefer what his typology classifies as *practical* judgments and avoid formulating so-called *diagnostic* and *critical* ones. In other words, while teachers' attention is principally directed at finding instant and workable solutions to emerging problems, they seem to overlook the *WHY* aspect of their choices which requires prolonged processing and involves meticulous examination of evidence and causal inferences. Critical judgments, in particular, challenge one's existing cognitions (standards, knowledge, and ways of thinking), creating space for potential conceptual and procedural adjustments. They arise from doubts the teacher has about the implemented schemata and underlying propositions, but they are not the same as self-doubt. Certainly, it takes an expert to perform such a task without inflicting any psychological damage on oneself.

To conclude, despite the growing interest in the psychological dimension of teaching, more research is needed on its affective component. There are unanswered questions about this delicate matter, such as the potential impact of teachers' emotional conduct on the executive brain functions of those exposed to it, and the formative role of emotions during the initial teacher training stage, where the conceptual basis of instructional decisions is formed. On the other hand, it is widely accepted that a combination of emotionally and cognitively loaded information plays a role in decision-making and problem-solving, and this requires ongoing testing and validation.

This study was motivated by Kahneman's (2003) dual-process theory, which posits that people's evaluations of their external and internal realities are influenced by two opposing forces: intuitive and emotional reactions, and deliberate and analytical responses to stimuli. Based on the premise that emotions precede reasoning, the study aimed to initially gather quantitative data on the participant's psychological states over an extended period and then qualitatively analyze the cognitive processes he engaged in to challenge his emotional responses. Tripp's (2012) typology of professional judgments also provided an inspiring framework for examining the validity of formulations generated by the teacher. The present paper contributes to the academic discourse on the interplay between affect and cognition in relation to expertise in higher education. It emphasizes the significance of self-observation and critical judgment as potentially the weakest aspects of teacher performance in this context.

### 3. Methodology

What makes this study exceptional is that it simultaneously explored three aspects of teacher cognition. The study scrutinized the emotional, reflective, and self-regulatory behaviors of an educator to determine potential interaction patterns among them. The teacher's high academic standing implied the use of rigorous professional development standards, which enabled the assessment of emerging teaching practices against current

conceptualizations of expertise. Furthermore, the insight into the unobservable aspects of human information processing, which presents an ongoing research challenge, was made possible by the continuous engagement of the study participant over an extended period of time. Indeed, it is rare to find a full-time working individual who would agree to collaborate on such an absorbing project.

The study results can provide valuable material for educational theorists and practitioners to stimulate the revision of concepts such as lifelong learning, professional development, and self-regulation, as influenced by teachers' emotional selves in the context of higher education. They can also be used in teacher training programs to illustrate the emotional journey of the teacher and its outcomes. The authenticity of personal experiences and the inferences they can trigger provide added value when closely examined by trainees.

### 3.1 Study objectives and hypotheses

This study aimed to investigate whether heightened focus on positive and/or negative emotions elicited by in-class and out-of-class work can lead to cognitive and behavioral changes in a teacher, as part of an ongoing learning process. The study was guided by the following research questions:

- RQ1.* What were the predominant emotions that the teacher experienced regarding his teaching during the one hundred days of self-observation?
- RQ2.* What reflections and judgments, if any, did he form about his emotional responses to the realities of work?
- RQ3.* What changes, if any, could be observed in the occurrence of his emotional states and the corresponding interpretations?

The working hypotheses formulated based on the literature review and previous research predict the following:

- H1.* The teacher experiences a variety of positive and negative emotions, with a tendency toward negative outbursts.
- H2.* The participant's judgments are mainly reflective and critical.
- H3.* Strong emotional states become less frequent toward the end of the study.

### 3.2 Research design and context

This research aimed to determine whether there is a causal relationship between an expert educator's reflective effort and his emotional responses to work-related events. A case study methodology was implemented as the optimal approach to access the teacher's affective thoughts and cognitive interventions on these thoughts. In the context of the higher education system in Poland, the study involved a faculty member from a state university over a period of one hundred days, from May 15, 2021, to August 22, 2021. Importantly, this period fell within the Covid-19 pandemic and the online operation of the institution.

### 3.3 Participant

Out of the three faculty members from the university who were approached, one graciously agreed to participate in this case study and comply with all the study requirements. The teacher, a man of Polish descent, was in his twenty-third year of his academic career. As an accomplished philologist, he has made significant contributions to the university community in his capacity as a senior lecturer and the head of a department (which cannot be disclosed).

### 3.4 Instrumentation

The participant was asked to conduct a two-week trial during which he recorded a range of recurring emotions he experienced while working. On this basis, an outline was sketched, comprising four primary emotions he identified (fear, anger, joy, and sadness) and a three-degree scale reflecting their intensity, or as he put it, “the persistence of feelings throughout the day,” where (3) designated an emotion overwhelming enough to prompt reporting, (2) referred to the sensitive peak of the day that gradually diminished toward the reporting stage, and (1) described an affective situation that required a moment of active retrieval for recognition (Table 1). The participant used the parametric guideline to compose his personal log entries, in which he daily commented on his emotional states and their causes. The second part of the task involved evaluating the rationality of the emotional responses in the context of the teacher’s professional knowledge. Given the frequency of reporting, the participant was instructed to provide brief comments, each consisting of 30-40 words. The log, which was presented as a detailed verbal table, served as the main tool for gathering information about the course of controlled attentional processes and reasoning. English was chosen as the language of expression because the teacher felt comfortable using it in writing.

Table 1: The values assigned for the framework of emotions

	Intensity		
Emotion	Very strong = 3	Moderate = 2	Rather weak = 1

Source: (Author of the study)

### 3.5 Data collection procedure

The data for analysis was obtained using both quantitative and qualitative measures. First, due to the scope of the study, a substantial amount of structured material was acquired. Potential pauses in reporting were discussed beforehand as acceptable, as long as they were brief or resulted from the absence of clear work-related emotions. Understandably, this could refer to weekend retreats, when the teacher was or tried to be emotionally disconnected from current occupational matters. Secondly, the participant was voluntarily running his personal blog without any active intervention from the researcher. This arrangement provided the former with a high degree of autonomy and independence to exercise his situational judgment



skills and the latter with an opportunity to assess the professional coherence and integrity of the formulated judgments as a complete sequence of events in time and space.

The communication limited to digital channels did not hinder the data collection process in any way. The electronic log was submitted as scheduled before September 2021.

### 3.6 Data analysis procedure

The emotions that emerged during the study were statistically analyzed using XLSTAT. So were the fluctuations in their potency. The qualitative analysis of the participant's reflective comments began with categorizing the reasons behind his affective thoughts. As a result, each entry was assigned a feeling and cause, enabling the observation of similar instances and their placement on the continuum.

The categorization of professional judgments in the teacher's log followed Tripp's (2012) typology, which identifies practical, diagnostic, reflective, and critical evaluations as the primary learning outcomes in a workplace. Accordingly, each concluding statement was checked against the questions presented in Table 2 below to confirm its accuracy.

Table 2: Questions determining the classification of the participant's professional judgments

Sources of orientation	practical	diagnostic	reflective	critical
Does the statement draw upon one's domain expertise?	✓			✓
Does the statement manifest reasoning?		✓		✓
Does the statement communicate personal values/beliefs?			✓	
Processing time				
Does the formulation of the statement need extended processing?		✓	✓	✓
Does the formulation of the statement need quick processing?	✓		✓	
Learning outcomes				
Does the conclusion yield a feasible solution to a problem?	✓			
Does the conclusion build awareness of one's decisions?		✓		
Does the conclusion reveal one's opinion about a problem?			✓	
Does the conclusion communicate revised principles and specialist knowledge?				✓

Source: (Based on Tripp's typology, 2012)

For example, a comment on Day 15, "Clarity means a lot to me; without it, I feel very unconfident, and professionalism rests upon healthy confidence, not overconfidence," was recognized as a reflective judgment for three valid reasons:

- It did not necessarily take a long time to formulate a conclusion like this, provided the teacher referred to what he acts upon on a daily basis.
- It conveys the teacher’s understanding of professionalism although there is no elaboration on the difference between healthy confidence and overconfidence.
- The phrase *means a lot* reflects the teacher’s explicit moral attitude toward her educational role.

## 4. Results

### 4.1 Research question 1

During the trial, the participant identified four primary emotions that influenced his thoughts about the events at work: anger, fear, joy, and sadness. In the course of the study, he reported on these affective states 93 times in total, including rare instances where he experienced conflicting feelings on the same day. As shown in Table 3, irritation was the most common emotion, while the feeling of sadness was communicated least frequently.

Table 3: The descending order of emotion-driven thoughts

Emotion	% of total	Very intense	Moderate	Rather weak
		% of the emotion total		
Anger	34,4	37,5	46,9	15,6
Joy	30,1	14,3	39,3	46,4
Fear/Anxiety	24,7	30,4	56,5	13
Sadness	10,7	10	50	40

Source: (Author of the study)

The participant reported experiencing moderate emotional states most repeatedly. That was the case for all the negative feelings, including anger, fear, and sadness. Joy, on the other hand, was generally perceived as a fleeting state, with only four days characterized by pure pleasure resulting from work-related circumstances. Those occasions can be summarized as two joyful days when his students actively participated in a class, a day when he successfully completed grading during a festive time and had some leisure time with his family, and the last working day before the summer holidays. It is interesting to observe that the levels of both strong and moderate annoyance and anxiety were particularly high. Those emotions rarely manifested in a milder form, such as the participant experiencing a “tickling feeling” on Day 1 when he was tired and contemplating how to get through another four weeks of the trimester.

Three general causes of emotional states were identified based on the teacher’s descriptive comments. The first and most common motivation behind his affective thoughts was the nature and extent of effort he put into fulfilling his obligations. Referred to as *Task Execution*

and *Workload*, they fell into the broad category of *Labor*, as shown in Table 4. It is evident that routine duties, including various didactic and administrative procedures, elicited significant emotional fluctuations in the teacher. Most often, he felt anxious about his work performance, but he also experienced frequent moments of joy and anger. Curiously, on Day 69, he expressed intense bitterness caused by the low quality of student writing submitted for grading, as well as delight that he had enough time to accomplish the marking job. The second stimulus pertained to students and their academic and non-academic conduct in particular. The former triggered rather negative reactions. The participant admitted that he struggled to accept the fact that his students were inattentive, unresponsive, and irresponsible when it came to their assignments. However, the moments when they actively participated in classes did not go unnoticed. He documented those teaching experiences as bright and highly gratifying. Finally, there were events, which included interactions with co-workers or management and actions initiated by the teacher himself, such as creating a countdown timer to summer holidays. Their number and significance were minor compared to the other categories, though.

Table 4: The major causes of the teacher's emotional states

No. of instances for each cause	Cause subcategories	Anger	Fear Anxiety	Joy	Sadness
Labor (48)	Task Execution (43)	9	20	11	3
	Workload (5)	3	—	—	2
Students (32)	Academic Conduct (28)	17	1	8	2
	Non-academic Conduct (4)	2	—	1	1
Events (13)	Interactions (9)	1	2	4	2
	Teacher Actions (4)	—	—	4	—

Source: (Author of the study)

Overall, the results only partially support the hypothesis that teachers with high status and expertise, on the one hand, and a long professional career, on the other, might experience more negative emotions about their work rather than positive ones. Anger was indeed the most frequently mentioned emotion in the participant's personal log, but joyful feelings, although less intense, surfaced nearly as often. The focus of his emotional thoughts on the foundations of teaching – the didactic and administrative activities, and students' conduct – were entirely predictable. Still, the prevailing emotions of apprehension and discontent raise questions about the teacher's job satisfaction in general. When the daily routine becomes a significant source of unease and concern, the practitioner's overall well-being and work performance may be seriously threatened.

#### 4.2 Research question 2

The participant reflected on 90 out of his 93 log entries. While it was impossible to determine the duration of processing he engaged in to generate evaluative statements about his emotional states, it was possible to identify their sources.

Conclusions that convey the teacher's personal beliefs and principles often included explicit communication about his assumptions regarding how things generally work:

- You feel sad when your happiness depends on others (Day 18)
- Show must go on no matter how tired you are (Day 39)
- Lazy people are scary (Day 79), etc.

Similarly, logical reasoning was evident in several judgments, where the teacher specified causal sequences within his thought processes. To illustrate:

- I hate the fact that I am going the extra mile with this little time on my hands; how about I don't chase them [students who failed to submit their assignments]? No, that would be unprofessional – here we are; I hate being a professional? (Day 54)
- If I name it a waste of time [double checking nearly a hundred submissions to see where he could grant more points] and an attempt to please others, it shows that I have doubts about my own reasoning and expertise when grading; but maybe I doubt my judgment because grading is not just about expertise and reasoning but adopting a specific context-bound perspective? I am angry because I cannot find the balance between these? (Day 71)
- I want so much to be prim and proper that a simple obstruction makes me feel bad; which is genuinely worse? To be late (even though this is just an anticipation) [the teacher refers to a possible delay in finalizing the trimester grades], or to torture myself with fearful thoughts? (Day 85), etc.

Domain expertise provided an additional source of understanding for the teacher in his evaluations:

- If I had thought for a moment about how the first encounter with students is not really about the textbook and teaching content but other important things (there is so much to find out about who you are going to teach), maybe the entry would be very different [the teacher was irritated that upon the beginning of a new course, he had no access to relevant didactic materials] (Day 40)
- My irritation is justified only for pragmatic reasons; repeating the same thing again and again is a waste of precious time; but should impatient people be teachers? Learning involves repeating. Obvious, isn't it? (Day 60)
- So, we talked about something and now they can't remember; another teacher would tease me a big time here. What about not enough consolidation, practice, relevance? Attention is not the only thing in play (Day 74), etc.

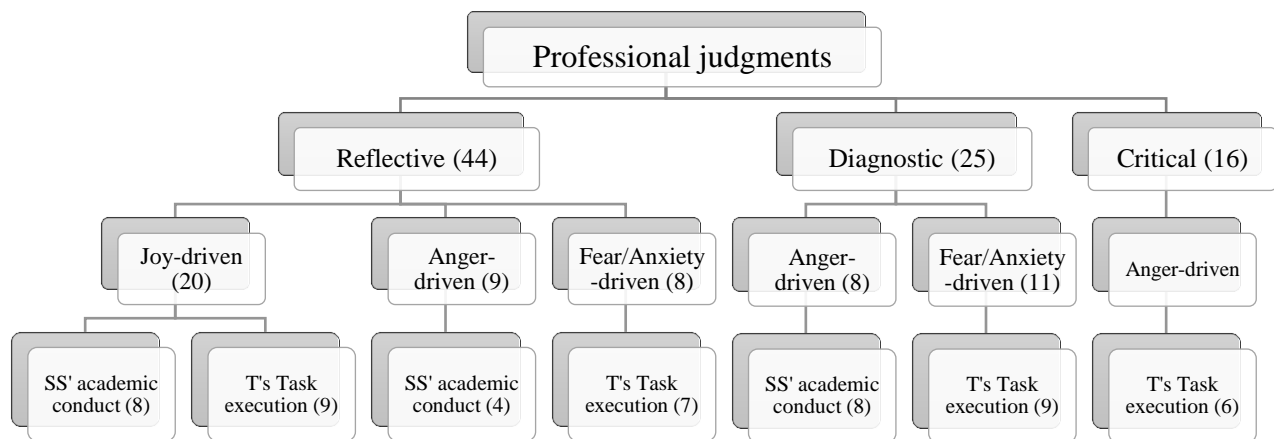
In Tripp's (2012) typology, the nature of learning outcomes is also intended to assist in identifying the nature of the final professional judgments teachers make. As a result, the participant's comments were recognized as:

- providing practical ideas to improve his future performance (5 out of 90);
- revealing his attitude toward the occurrences (44 out of 90);
- examining his actions and rationale behind them (25 out of 90); and
- challenging his existing knowledge and underlying assumptions (16 out of 90).

The dominant agents and their composition are presented in Figure 2. The data only includes variables that are relevant to the teacher’s judgements and appear to be significant.

First, the reflective segment was extensive, consisting of 44 statements, and mainly motivated by positive thoughts (20) about students’ performance inside and outside the class, as well as the teacher’s responsibilities. In other words, a good amount of controlled cognitive effort was directed toward forming or strengthening beliefs such as an idea that students can be partners in education (Day 17), that teaching is gratifying even when benefitting only a few (Day 52), that making progress on tasks enhances well-being (Day 9), or that maintaining high morale at work helps to prevent getting bruised (Day 44). Clearly, he found more fulfillment in his job through positive, joy-driven reflections than negative ones.

Figure 2: The dominant professional judgments categories in the teacher’s log



Source: (Author of the study)

Second, diagnostic judgments (25 statements) primarily stemmed from the participant’s hostile feelings toward students’ substandard behavior and anxiety about carrying out his duties. These two compounds dominated the log as a whole. Therefore, the 17 attempts to examine his emotional responses and their origin might be considered the teacher’s professional achievement. The comments were intended to be concise, but they actually demonstrated the academic’s higher-order thinking skills. The following is a good example of his attempt to understand his own frustration after realizing that the students had not followed the guidelines provided on Moodle for the writing assignment:

They [students] might not be willing to check my uploads on Moodle; orienting them seems insufficient; I deduct the points and provide the reasons in feedback; this

should be the end of the story; I reacted irrationally because I think it is not just Moodle that was ignored - it is my recommendations that were ignored; this is the reason I am angry. I take it personally (Day 81).

The teacher carefully examined the premises and adjusted the direction of his argument after realizing that the problem was more complex than he had initially thought. Without recognizing the insubstantial nature of his instinctive response, he had little chance of reaching the eventual conclusion.

Finally, the critical judgments totaled 16, and they advanced the teacher's reflections by questioning his expert knowledge, personal theories, values, and attitudes that he found ineffective in justifying his psychological states. These judgments were motivated by various factors, but not by a sense of sadness. Within this range of experiences, the only stimulus that consistently emerged (six times) was the execution of tasks and the resentment it included. To illustrate, the participant decided to investigate why he was deeply troubled by his superior's approach when asked to provide evidence of email exchange with a student without being told the reason. He not only found the answer but also verified his perception of communication flows within the organization:

I would like to be contacted in a more thoughtful way, but in fact he did nothing wrong; I would prefer things done differently, but I should ask why my preference should be even considered in such a small case; it is not a message communicating any shocking thing - no buffer needed, nor is justification from the boss. There are more important things on the job that require my attention and affect too (Day 31).

In conclusion, the hypothesis that the participant would primarily produce reflective and critical judgments was only partially confirmed. The former were clearly in the lead, as expected; however, the observation of diagnostic judgments outnumbering the critical ones was impressive. It indicates that attentional processes were intentionally focused on the task that presents a cognitive challenge.

### 4.3 Research question 3

The teacher did not provide any comments for the last nine days of the study runtime, except for Day 95 when he expressed excitement about starting the summer holidays and feeling completely justified in mentally disconnecting from work for the first time ever. It is reasonable to assume that his attention was wandering away from the professional matters, as the completed duties only increased in him a sense of composure, if not an immediate disinterest. However, it is also possible that the effort he put into analyzing his emotions for more than three months led to mental exhaustion, and he needed a break from it.

Upon closer examination, excluding the exceptional last week, the results revealed that there were exactly nine days in each half of the reporting period when the teacher did not leave any annotations. This suggests that the ratios between the frequencies of the feelings, as shown in Table 5, might have been different if the participant's observations and reflections had continued until the study was completed. Still, their occurrence was marked by a few notable features.

Table 5: The occurrence of emotional states per 50 days

Emotion	Ratio	Clusters Days 1-50	Days per cluster	Clusters Days 51-100	Days per cluster	Last occurrence
Anger	18/14	4	2 / 3 / 5	3	2 / 3	Day 90
Joy	20/8	5	2 / 3 / 4	2	2	Day 95
Fear/Anxiety	14/9	4	2	—	—	Day 89
Sadness	6/4	—	—	1	2	Day 88

Source: (Author of the study)

First, the occurrence of multi-day emotional clusters was more noticeable and widespread in the first fifty days. This change in the individual's emotional behavior could be seen as a developing pattern, but it may not be connected to the cognitive processes he engaged in. Other psychological factors, such as the individually-measured significance of work-related experiences, could impact the teacher's reactions. On the other hand, it was interesting to observe that the states of anxiety ceased to escalate after Day 38, which could result from the diagnostic and critical insight the teacher regularly applied on those occasions. Similarly, the sequences of days dominated by feelings of anger were often accompanied by the participant's efforts to examine their causes and verify the underlying principles. For example, the five-day period from Day 18 to Day 22 involved one critical judgment and two diagnostic judgments, while the three-day period from Day 25 to Day 27 included two critical judgments. The narrowly focused evaluations were likely to have a lasting impact on the teacher's cognition/thinking and could initiate change.

Secondly, the significant decrease in the occurrence of joyful thoughts and their groupings remains puzzling. The ratio of 20 to 8 could certainly not be justified by the missing entries at the end of the teacher's log. Most of the happy moments at the beginning (15 out of 20) were inspired by either fulfilling duties or the students' behavior. It was evident that the teacher focused on these two aspects of his work, but his attention shifted later on, as he appeared to value brief moments of free time and opportunities to relax. The comments, such as "It's good to have a weight off the shoulders and rest," "accomplishment on the horizon," "it is a blessing to stay in," or "I am doing well; I am generating time," indicated that he was feeling low on energy and anticipating to the end. The reflection before the announcement of the holidays was highly revealing. During a weekend conversation with a colleague about their future professional development, the discussion was encouraging but somewhat superficial due to fatigue.

Another observation was that the occurrence of parallel, and sometimes conflicting, emotions diminished toward the end of the study. While two or three co-occurred as many as 14 times until Day 39, only two more occurrences surfaced on Day 60 and 69. The coexistence of negative reactions seems fully justifiable in situations where, for example,

unexpected complications in an exam caused by human incompetence resulted in a delay and concern about failing to complete the remaining tasks (Day 32). Consequently, the teacher reported experiencing a two-fold discomfort throughout the day, including strong annoyance and moderate anxiety. The instances where unrelated events elicited contrasting feelings in the teacher do not seem unnatural, as each could be remembered as a defining moment of that day. On Day 20, the teacher was initially troubled by a student logging out of an online session right after the attendance check. However, the teacher was delighted by the surprisingly quick and correct reactions from the class to the lesson contents. It is reasonable to assume that the extended process of self-observation altered the teacher's perceptions of reality, especially in terms of and the transparency of his own emotional thoughts.

Finally, the collected data did not provide conclusive evidence that the systematic formation of professional judgments influenced the change in the participant's emotional behaviors. More specifically, the teacher conducted 25 diagnostic and 16 critical evaluations of his emotional reactions to his professional environment, with most of these evaluations focusing on the states of heightened irritation and anxiety. From a cognitive perspective, the potential for diagnosis and critical analysis to provoke behavioral adjustment is immense. However, instances of students frustrating the teacher kept recurring until Day 90. He was also very upset about the didactic and administrative tasks he had to do. The inability to detect the discontinuation of intense affective thinking does not necessarily imply that the teacher's self-regulation processes were ineffective. On the contrary, considering other ongoing changes, it is assumed that a longer study could yield more conclusive results.

Overall, there was variation observed in the participant's self-evaluative strategies although it did not confirm the hypothesis that the teacher would have ceased to experience very strong emotions by the end of the reporting period.

## 5. Discussion

The study findings presented above point to three important issues to discuss regarding the affective and cognitive dimensions of expertise in higher education:

1. The academic environment is not immune to negative emotions that arise from interactions among its members and the nature of the work being done.
2. Teacher cognition plays a crucial role in managing the emotional aspect of work.
3. The quality of teacher learning is related to the quality of professional judgments that teachers formulate about their emotionally charged experiences.

On the whole, the context that promotes strong leadership skills does not only set the stage for happy stories. Tension is inherently created when individual frames of minds and knowledge intersect to accomplish tasks. Emotional responses to external stimuli play a role in knowledge construction as they provide important information about the world and ourselves. The study participant developed and expressed an impressive range of emotional thoughts, which should be seen as an opportunity for further personal growth. As Mitch Albom (2003) rightly observes, "In order to move on, you must understand why you felt what you did and why you no longer need to feel it."



The activation of cognitive mechanisms, such as the ability to convert attention-grabbing stimuli and subjective psychological states into meaningful observations, is a way to actively control learning processes (self-regulation). This is in contrast to over-reliance on familiar interpretations and schemata with excessive confidence. Domain expertise encompasses the ability, paired with knowledge and efficiency, according to the prototype view of expert performance, long proposed by Sternberg and Horvath (1995). Deficiency in any of these components may affect the functioning potential of the others. In this study, the teacher experienced a range of emotions, some stronger and some weaker, throughout the reporting period. He consistently diagnosed, inferred causes, contemplated underlying values, and made reflective and critical evaluations. Although the collected evidence did not demonstrate a significant change in the teacher's mindset toward work and students, small improvements and positive changes were observed in his emotional behavior. This suggests that his thinking has an impact on his actions.

The findings, which pertain to a highly motivated teacher engaged in prolonged self-inquiry, are consistent with the idea of universities functioning as dynamic learning environments for both students and teachers. The high quality of both intellectual and didactic performance that they are meant to represent is a worthy cause and incentive to engage components of individual teacher cognition such as culturally-anchored values, systems of personal beliefs, and implicit theories about education in order to redefine personal and professional boundaries.

### **5.1 Implications for practice**

Successful emotion management is not optional for higher education faculty members; it is important to consider it as an essential and active part of their service. This study showed that integrating a self-observation task and affect-driven learning into the daily academic routine can be done methodically, despite the intensity of the task placing considerable pressure on the individual carrying it out. Given a less rigid structure, the formation of experience-based professional judgments should further improve the process of annual appraisals and/or periodic evaluations in universities worldwide.

Additionally, emotional competence is expected to become a prominent feature in teachers' occupational profiles and job descriptions for all education positions, as it is considered a hard skill, rather than a soft skill, and is particularly desirable in today's context.

### **5.2 Limitations of the study**

There are two limitations of this study, the primary one being its small sample size. The insufficient volume of collected data hinders the discussion about the qualities and disposition of the individual educator within the context in which he functioned during the study. However, the value of the data is unquestionable. It tells a long, unique, and personal story that revisits emotions over a span of time. The study design created a unique opportunity for the practitioner to generate information relevant to his personal and vocational identity, and for the researcher to access mental operations on affective

representations. More evidence of this character is still needed to enrich the theoretical considerations about the role and interaction between affect and cognition in a workplace.

### **5.3 Recommendations for future research**

The expansion of research is crucial for gaining a more comprehensive understanding of how analyzing one's emotional behavior contributes to enhanced professional capability in higher education. Future longitudinal studies will need to use additional research instruments to capture potential patterns of change in specific variables. For example, they could explore the implementation of strategies in problem-solving, feedback, or content management. Pre- and post-study interviews with the subjects and other participants in the work contexts would be critical for placing the research results into a broader perspective.

## **6. Conclusion**

It is a stereotypical belief that experience enables us to effectively control our emotions, and that only novice teachers feel fears and anxieties about their work. In this study, emotions were found to significantly interfere with the day-to-day duties of a competent practitioner. Still, he demonstrated an ability to take a constructive approach to his emotional self and regularly concluded that his reactions to students and teaching responsibilities were exaggerated or irrelevant. He did not, however, reach the stage of the study where he could successfully regulate what he was determined to regulate in his professional life. The key to his great success lay in his willingness to embrace ambivalence toward his emotional thoughts and actions. After all, doubt is a function of cognitive development. The realization that we should be mindful of our emotions takes expertise to the next level.

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