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# Experienced, Enthusiastic and Cautious: Pedagogy Profiles in Emergency and Post-Emergency

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**Abstract: Background**: The COVID-19 pandemic has generated one of the most significant global disruptions to education systems in generations. **Purpose**: This study aims to examine the link between the profiles of teachers identified over the course of the period of Emergency Remote Teaching (ERT) as "experienced", "enthusiastic", or "cautious", and their willingness to incorporate new pedagogical practices that adapt to the new virtual teaching environments. **Methodology**: This is a qualitative study in which a thematic–discursive analysis of in-depth interviews with university teachers is conducted in real time. **Conclusions**: The study found significant differences between the teachers as categorized in terms of responses and practices. These differences are expressed in three main spheres: the capacity of perception (insight), the available repertoire of practices, and the teaching gaze. The Teacher Profiles model in ERT has been updated accordingly. **Implications**: The adjusted Technology Acceptance model along with the recommendations derived from this study may contribute to the training and professional development of university teachers in the field of digital literacy.

## 1. Introduction

The present study is a continuation of previous research conducted at the beginning of the COVID-19 crisis in March of 2020. At that time, an interdisciplinary research team comprising researchers from five universities in Latin America, the US, Europe, and Israel developed qualitative and quantitative instruments aimed at investigating the impact of the situation of Emergency Remote Teaching (ERT) on the pedagogical practices of university teachers.

To date, two articles on the subject have been published. In the first, three teaching profiles were identified, essentially derived from pedagogical conceptions and modes of coping with crisis situations, and relating to the levels of digital literacy acquired by these teachers [1] In the second, [2] the authors analyzed the teacher profiles identified in the ERT situation in light of the Unified Theory of Acceptance and Use of Technology and proposed a new model for acceptance and use of technologies in teaching, which they called the Updated Technology Acceptance Model [3,4].

The existing literature responds to the professional modalities of university teachers during the ERT period, when the common view suggested that within a short period of time it would be possible to return to a normal situation. However, two years into this crisis we might propose that we are witnessing three stages in its development: 1. The emergency stage itself (ERT)—essentially, distance learning; 2. The programmed emergency stage, which combines distance and face-to-face teaching periods as necessary and with a certain degree of uncertainty, although less than in the first stage; and 3. The post-emergency stage (the current situation), in which societies reorganize themselves to live with the virus.

In the present study, the authors analyzed the strategies reported by teachers at different universities during the emergency and programmed emergency stages, then analyzed the relationship between the different university teacher profiles in the light of those strategies, the technological practices that they adopted during those periods which proved effective, and their willingness to incorporate these practices in the post-emergency period.

The objectives of this research were:

- To understand the impact of ERT on the specific practices of teachers in the classroom;
- To understand the link between the teacher profiles identified during the ERT period and the level of willingness of each group to incorporate new pedagogical practices adapted to the new virtual teaching environments; and
- To understand the relationship between the teachers' degree of digital literacy and their pedagogical practices during ERT.
- The central research question in the current work is:

    a.  Is it possible to identify a relationship between the various teacher profiles identified in the emergency situation ("experienced", "enthusiastic", and "cautious") and the willingness of each group to incorporate new pedagogical practices adapted to the new virtual teaching environments?

The following sub-questions are derived from the above:

a.1: What are the teaching strategies employed by teachers in the ERT situation?

a.2: Where was the teacher's gaze focused? Is there any relationship between this orientation and their strategies and willingness to incorporate technology in teaching?

The assumption underlying the study is that a deeper understanding of the processes that are triggered in educational emergency situations that is mainly focused on the practices actually developed by teachers in the relevant situations will contribute to the training of teachers to introduce similar processes in other educational institutions.

## 2. Theoretical Framework

As a consequence of the COVID-19 pandemic, teaching institutions at all levels shifted to digital teaching environments in an emergency mode called ERT (Emergency Remote Teaching). Although this modality is not new [5], its appearance during the pandemic was unprecedented in its extent and duration [6–9].

In the first stage of the research, we identified three teacher profiles, namely, experienced, enthusiastic, and cautious, defined in relation to three relevant components: level of digital literacy [3,10,11]; teaching approach [11–13]; and willingness to undergo pedagogical change [1,2,14,15].

In defining digital literacy, we adopt the conceptual framework proposed by Eshet and Alkalai (2004), which includes the acquisition of five skills: photovisual literacy, reproductive literacy, information literacy, branching literacy, and socio-emotional literacy [5].

In the second stage, the disposition of people in general and teachers in particular to use technologies in their practices was examined in depth, with the development of different models aimed at explaining the processes of acceptance of the technologies. Davis (1989), in his Technology Acceptance Model (TAM), suggests two determining factors: perception of usefulness, and perception of ease of use [16]. This model was subsequently expanded to the TAM2 and TAM3 models [17].

Finally, Admiraal et al. adopted Venkatesh's Unified Theory of Acceptance and Use of Technology (UTAUT) [3,18,19]. This model attempts to unify the different existing models, and is based on four constructs that Venkatesh and his colleagues consider as determinants for the use of technologies [19]:

The first is performance expectancy, which is defined as "the degree to which individuals believe that using the system will help them obtain advantages in their work performance" [19] (p. 447). In the various models analyzed, this seems to be the most significant predictor of the use of technologies in terms of motivation, perception of success, and social context.

The second is effort expectancy, defined as "the degree of ease associated with using the system" [19] (p. 450). This category is especially relevant for the initial period of technology use, and refers to the perception of the complexity of the task to be tackled and the effort required to carry it out. The expectation of ease of use is possibly a central component in the willingness to incorporate technologies, and research shows that it is frequently mentioned in the field of teaching.

The third construct is social influence, defined as "the degree to which individuals perceive that significant others believe they should use the new system" [19] (p. 451). This category refers to the perception of the acceptance of technologies as a resource relevant to the subject's social and labor context and of self-image. Unlike the first two constructs, which relate to the psychological-individual sphere, the third construct relates to the socio-communal sphere [19] (p. 451).

The fourth and final construct is "enabling conditions", defined as "the degree to which individuals believe that there is an organizational and technical infrastructure to support the use of the system" [19] (p. 453). This refers to the extent to which individuals perceive that they will be able to control the systems with techno-pedagogical assistance (human and material resources) and with the technical and administrative support of the institution. This fourth construct belongs to the political–institutional sphere, thus completing a broad spectrum that opens up from the particular to the general.

The third stage of the research takes particular note of teaching models and approaches. Of special relevance from this perspective is the need to "normalize a post-pandemic pedagogy, in which online teaching is part of a new normalization of emergency e-Learning, which refers to strategies that frame the widespread adoption of online learning under COVID-19 as a path to a new normal response rather than an emergency response" [20] (p. 10). Murphy refers to the need for a pedagogical rethinking in view of the establishment of a new routine of "living alongside the pandemic".

Different authors have taken up this challenge, proposing strategies to start building a post-pandemic pedagogy. Among them, [21] proposes the following: first, create an alternative teaching plan; second, pay attention to our own voice; third, relate to the small class as an attractive framework; fourth, enhance students' competence through study activity outside of the classroom; fifth, introduce a pedagogical teacher's assistant; and sixth, combine the virtual classroom with the traditional face-to-face classroom. [6] proposes a similar model: first, make emergency preparedness plans for unexpected problems; second, separate the teaching content into smaller units to help students focus; third, emphasize the use of voice in teaching; fourth, work with teaching assistants and gain online support from them; fifth, strengthen students' active learning ability outside of class, and sixth, combine online learning and offline self-learning effectively.

Some authors have coined a new term—ERL, Emergency Remote Learning—to express the emergency situation as experienced not only by teachers but also by students and their families [22,23] reports two predominant components in the experience of university students: the experience of blended learning„ and that of "paradoxical learning" that assumes the coexistence of positive and negative factors in the learning experience in the emergency situation.

At the time of writing this study, we find ourselves in what we might call the post-emergency stage; although the pandemic is active, universities have mostly returned to face-to-face classes thanks to the existence of vaccines, rapid tests, effective treatments, etc. The relevant question is what we have learned over the past two years, and how we should go about building a new pedagogy that includes new tools and concepts that can help us navigate future emergencies. To this end, the analysis of the practices of teachers in the first stage of the emergency, especially those most successful in terms of acceptance and willingness to embrace pedagogical change, will allow us to rethink training and professional development processes.

## 3. Materials and Methods

At the beginning of this chapter, it should be noted that both the design and the instruments of this research were developed together with an international team of researchers who worked in parallel at their respective universities (Prof. G. Horenczyk and Dr. M. Dorfsman, Hebrew University, Israel; Dr. C. Lion, Universidad de Buenos Aires, Argentina; Prof. K. Göbel, Universität Duisburg-Essen, Germany; Prof. E. Makarova, Universität Basel, Switzerland; Dr. D. Birman, Miami University, USA). Furthermore, the in-depth interviews upon which this work is based were carried out during the first stage of this investigation.

A quantitative questionnaire was first administered to the teaching staff of the Hebrew University, yielding a total of 241 participants. In the questionnaire, respondents were asked to indicate whether they would be willing to participate in the qualitative research stage, consisting of an in-depth interview, in order to broaden and deepen the data requested in the questionnaire. We received 110 positive responses; to define the sample, we used the judging sampling technique. In this type of sampling, following the principles of structural representativeness, the variables that delimit the composition of the sample are chosen under previously agreed-upon theoretical criteria. The number of units required was established according to the saturation point principle [24,25].

The researchers chose two variables to construct the sample, namely, years of experience and disciplinary field of teaching. The sample arrived at included ten female teachers and five male teachers; ten of them taught in the humanities and five in the natural sciences. Six teachers reported between 1 and 5 years of experience, three between 6 and 11 years, two between 12 and 17 years, and four reported 18 years or more of teaching experience.

The fifteen selected teachers each participated in a semi-structured interview lasting approximately one hour.

The interview script considered the three stages that made up the questionnaire: teaching practices prior to CRTS (Corona Related Teaching Situation), the confrontation with the emergency situation, and the "day after". It was elaborated and validated in cooperation with the international research team whose members helped design the model and its instruments.

The interview addressed five topics:

a. Teaching background—for example: In what areas do you work? How long have you been at your university? For how many years have you been teaching?

b. Teaching conceptions—for example: How do you usually prepare your classes? What kind of resources do you use? Before the crisis, did you use technological tools? How? Which?

c. The impact of online teaching on practices—for example: How did you approach the CRTS? Did you have time to prepare for it? In addition to the zoom platform, did you use other tools? Have you noticed any differences between the first and last class you taught? What kind of differences?

d. The institutional perspective—for example: what could have been better in institutional performance? Did you feel that you could conduct yourself freely in your teaching?. The day after: How do you foresee the return to conventional classes? How do you conceive the new situation? Would you like to return to the type of practice that you developed before the crisis? Do you think this is likely to change? (See interview protocol in Appendix A).

The interviews were recorded and later transcribed for analysis using the thematic analysis method [26]. This methodology makes it possible to systematically identify, organize, and present reliable information on patterns of meaning in a data set. Its main advantage is its flexibility in accessing the data and undertaking its analysis. Within the framework of this methodology, a deductive approach was implemented "in which the researcher contributes to the data a series of concepts, ideas or themes that he uses to codify and interpret the data" [27] (p. 3). In the use of this approach, the semantic interpretation prevails; the orientation is critical, and favors triangulation.

In qualitative research, the researchers focus on carrying out the interviews without preconceptions regarding the answers to be obtained by the interviewees, the scope of their experience, their tenure, or the size of their classes. Although there were different types of answers according to the situation of each interviewee, they were processed according to strict methodological criteria.

The analysis took place in three stages:

- Stage 1. Thematic–deductive analysis based on the scientific literature
- Stage 2. Analysis according to the typology of Acceptance of Pedagogical Change [11]
- Stage 3. Analysis and recategorization through five thematic axes formulated as a reduction and reconceptualization of those set forth in stage 1, supported by the scientific literature.

In the first stage, the interviews were coded according to six axes that were selected based on the analyzed scientific literature: 1. Emergency preparations; 2. Dividing up teaching content; 3. Use of voice in teaching; 4. Teaching assistants; 5. Strengthening students' self-study; 6. Combining online and offline learning. Especially interesting was the third category, "use of the voice in teaching", referring to the teacher's need to reach the students. In the absence of the immediate direct contact of the regular classroom, the "voice" is an element that can contribute to and enhance contact.

In the second stage, the interviews were further analyzed according to the Typology of Acceptance of Pedagogical Change [1]; see Table 1. This table shows the analysis based on the sample taken in terms of the three main categories analyzed in this research: pedagogical conception, digital literacy, and pedagogical change, as discussed in our first article on this topic [1]. The teachers were assigned to the respective profiles according to the score received (see reference at the bottom of the table), and this generated the three profiles: experienced, enthusiastic, and cautious. In the table, a specific score has been established for each of the three categories, according to the references at the bottom.

**Table 1.** Typology of Acceptance of Pedagogical Change (TAPC).

| Profiles | | Pedagogical Conception | Digital Literacy | Pedagogical Change |
|---|---|---|---|---|
| Experienced | Michal (All the names are fictitious) | 3 | 3 | 3 |
| | Rachel | 3 | 3 | 3 |
| | Elisheva | 3 | 3 | 3 |
| | Shlomo | 3 | 2 | 3 |
| | Esther | 2 | 3 | 3 |
| Enthusiastic | Revital | 3 | 3 | 2 |
| | Noa | 1 | 3 | 2 |
| | Michael | 2 | 2 | 2 |
| | Meital | 2 | 2 | 2 |
| | Moshe | 2 | 2 | 2 |
| | Shulamit | 1 | 2 | 2 |
| | Avigdor | 1 | 2 | 2 |
| Cautious | Yael | 2 | 1 | 1 |
| | Marc | 1 | 2 | 1 |
| | Lior | 1 | 1 | 1 |
| References | | 1. Teaching based | 1. Uses digital tools, is not enthusiastic about continuing to use. | 1. Resist change; tactical change. |
| | | 2. Teacher based → Student based | 2. Discovered the tools and is interested in continuing to use them. | 2. Accept change; formal change. |
| | | 3. Student based | 3. Already used digital tools, and continues. | 3. Genuine change. |

Source: [1].

The experienced teachers received between 8 and 9 points, the enthusiastic between 7 and 5, and the cautious 4 or less. In the case of identical scores, as in the case of Esther and Revital (both 8 points), we decided to prioritize the third column (pedagogical change) and categorize it accordingly.

In the third stage, and thanks to data decoding and reduction work [28], the information was analyzed, recategorized, and reconceptualized through the following thematic axes: 1. Emergency planning (A re-reading of the interviews leads us to propose that the teachers were actually thinking in terms of "pedagogical planning" or "planning" rather than "preparation"); 2. Methodological considerations (Inclusion of the previous considerations—"Divide didactic content" and "Combine online and offline learning"—within this category seems more precise and explanatory for the purposes of our analysis); 3. Seeking direct connection with the student (The category "Seeking direct connection with the student" allows us to express more clearly the type of link the teacher is looking for with the student); 4. Teamwork; and 5. Consideration of student needs (In our view, the category "Consideration of student needs" allows us to express more clearly the teacher's concern for the students). These categories are the product of the reduction and reconceptualization of those set forth in stage 1, supported by the scientific literature.

Each of these categories was in turn divided into subcategories that allowed a deeper understanding of the pedagogical phenomenon manifested in each of the teacher profiles [12].

The entire coding process was carried out by each of the researchers separately, with the results obtained and then compared to guarantee the validity of the process and avoid subjectivity as much as possible.

In this thematic–discursive analysis, our focus was placed on the holistic analysis of the particular experiences of the interviewees during the educational emergency and in its context [29].

At the end of each stage, the researchers validated the coding process, obtaining a high percentage of concordance between both cases. It was not considered necessary to rely on statistical coefficients such as Cohen's Kappa or Kendall's T coefficient, as in this discursive type of analysis the congruence of the results is guaranteed by the concordance between the problem analyzed, the research question, the methodology chosen, and the type of information obtained [27].

As seen in the research results, each category refers to how each identified profile reacted in the emergency situation and acted accordingly. The coincidence between what the scientific literature indicates as best practices and those effectively demonstrated by the profiles most prone to genuine change indicated to us that this categorization was on the right track.

In the next chapter, we analyze in depth the categories mentioned in terms of the particular characteristics of the profiles in question.

## 4. Results

Our analysis of the interviews, as explained in the previous section, allowed us to describe how the three categories of Acceptance of Pedagogical Change emerged in each of the five thematic axes: a. Emergency planning; b. Methodological considerations; c. Seeking direct contact with the student; d. Teamwork; and e. Consideration for the needs of the student.

We now present each category as it emerges from the analysis. Finally, we corroborate how it is expressed in each teacher profile identified during the ERT.

### 4.1. Emergency Planning

In this first thematic axis, we find different answers regarding the nature and modality of the so-called "emergency". The current concept of emergency teaching originated in 2003 with the advent of SARS in the Far East [30].

We ask ourselves, how do university teachers react to an emergency, and how are they prepared to address it?

In our analysis of the interviews conducted between April and June 2020 we found that teachers in the **experienced** group quickly became aware of the dimension of change and of the need to make significant changes in their pedagogical practices: "I made a strategic decision: first record the classes and then do an online class discussion . . . " (Michal). Also, this understanding made them aware of the need to become "students" themselves, given that they would have to learn new tools in the new situation: " . . . From the beginning, I knew that I was going to have to make changes. I did not know what to expect, but I understood that there was going to be a learning stage (for me) . . . " (Rachel). Finally, consideration for the students was already present at that time: "One of the reasons why the teaching method I chose was to pre-record the lectures and do a 'flipped' course was because . . . it was also technical, making shorter videos . . . and for many students, that is better . . . " (Shlomo).

Teachers in the **enthusiastic** group were initially interested in the digital resources they were going to need and tried to organize their classes in view of the characteristics, and eventually the advantages, of these tools: "One of the things we thought about then was to prepare a lot of presentations for digital work, for working with digital tools, and now it saved us" (Noa,). Furthermore, they sought more "sophisticated" resources: " . . . I had to do an auditory PowerPoint, which they would listen to beforehand, and then the class—let's say a one-hour PowerPoint, and half-an-hour class. However, the PowerPoint took me so long, and it was so 'cost-ineffective', that I gave it up . . . " (Michael,).

The teachers in the **cautious** group organized their practices in a similar way as before, with minor changes: " . . . I didn't change much, if I changed in any sense I made some additional PPTs, a little more, I gave them the bibliography—instead of orally, in organized lists in Moodle . . . " (Yael).

Within the framework of these preparations, the search for "partners" for teaching stands out as a distinguishing feature. While the experienced and enthusiastic teachers relied on working with teams or colleagues: " . . . in general, I wouldn't have taken this course if I hadn't had a team that supported me in the first place" (Rachel), the cautious teachers did not mention this option.

*4.2. Methodological Considerations*

Faced with imminent change in the teaching modality, university teachers quickly began to assess the need to introduce changes in their practices. In the interviews, these changes were already taking place or being considered.

A general review of the data shows that the teachers considered specific modifications to their presentations ("more detailed PowerPoint"), combining online with offline, modifying the syllabus and the content of the classes. and reinforcing follow-up of their students in various ways.

In this context, it was the **experienced** teachers who made the most significant changes in their methodologies, especially highlighting their concern for their students: " . . . We decided to record the lessons. It's a bit challenging because we can't let them do 5 h of Zoom, or individual work with all the students; it's something that we can't do anymore, so we decided to record the lessons and then I would upload the recorded lesson, give them two weeks to work on an exercise, we did a focused lesson where we answered questions a week later . . . and in the process we organized a kind of forum which was really cool . . . " (Elisheva); "We realized that it was not working and so we started working a lot in groups, ( . . . ) each class had at least one session in pairs or trios . . . " (Rachel); " . . . for many students, it is better: how do I put together a class where they are active? How do I get them to engage?" (Michal).

The **enthusiastic** group mainly dedicated themselves to reviewing the resources and learning the new scenarios: "I tried to make the PowerPoint presentations more detailed to help them. In online teaching, that much more is required . . . (for) getting students to engage, that is, find ways to turn them from passive into active . . . "; " . . . So, first of all, PowerPoint preparation. Second, I don't know exactly how to explain this. It must be exact.

Something in the flow . . . I don't even know why . . . You must be sure that everything you say connects very well . . . " (Meital).

The **cautious** group was hesitant about adapting to the new conditions, changing their previous practices as little as possible: "Simply more orderly. Beyond that, no . . . Right, I worked more on the presentations, which means I was more concerned with them being a little more detailed or a little more visual, but of course in terms of the course content I didn't change . . . " (Yael).

" . . . So it took me a while to adapt, let's say share, let's say Power Point. I'll give you an example. I wanted to show them some clips, at first there was a problem because I didn't know how to make the sound so they could hear it. So I tried to show them a video, but they couldn't hear . . . ." (Lior).

*4.3. Seeking Direct Connection with the Student*

In this category, we analyzed an issue that teachers expressed with regard to their students at the beginning of the crisis: for all of them, the online Zoon teaching situation introduced a physical and psychological barrier that prevented direct contact. For many, this was an insurmountable barrier; for others, it was an opportunity to find new approach strategies.

In the case of the **experienced** group, what came through very clearly was their search for contact with their students, either visually via Zoom or using different strategies that highlighted the direct relationship with them: "In fact, I detailed each week what my expectations of them were, to help them to organize themselves, because I know that [students] jump [on Zoom] from one course to another (Michal)"—" . . . to see them, to look into their eyes . . . ." (Michal); "And also for me I think that in Zoom there was something very strong because the class presence is strong: at least you see the faces, you can understand if someone, by his look, is with us" (Esther).

The **enthusiastic** group showed a similar pattern. In general, while they sought contact with the students, in the ERT situation it was difficult for them to establish contact, and they felt the absence: "I told them, 'I want to listen'—I feel alone not listening to them, I didn't come here to talk to myself all the time. At some point it helped me, but I really complained to them, . . . I don't find this pleasant; I want to hear their voices, and at some point it settled down, but at first . . . I don't know, it was like a refrigerator" (Shulamit); " . . . because there is no class and you don't see all kinds of signs that maybe in class you can see" (Shlomi).

The **cautious** group did not make special mention of this category; however, when they did, it was in a tone of disappointment and even anger: "On the other hand, even now I feel that I don't have . . . I really don't know what students are, I don't know students, really. No . . . it's not the atmosphere of a course" (Marc).

In short, in this category, we can synthesize the three modalities that appear spontaneously in the teachers' search for contact with students: the **experienced** group actively seeks contact through different strategies; teachers in the **enthusiastic** group wish to do this and become frustrated when they cannot; and the **cautious** group do not seek contact, or else they do and are frustrated by the non-contact situation.

*4.4. Teamwork*

This category refers to the willingness and need felt by teachers to work in teams or with colleagues.

The teachers in the **experienced** group turned to colleagues to plan or 'rehearse' the implementation of the teaching system: "I worked together, I didn't work alone. The teachers [who were] alone were in a different situation" (Rachel); "The first time we rehearsed the class with my colleague, to see if everything worked well and we had no technical difficulties . . . " (Michal).

Among the **enthusiastic** group, while in many cases teachers were aware of the need for help and its importance, they expressed frustration at the inadequacy of what was

available: "But we don't have teaching assistants. So it is challenging ( . . . ), and there was no [direct] response either; there was an online response, there were online courses, but if I say I wanted someone [technical support] to come and help me . . . it was not like that . . . " (Revital).

Among the **cautious** group, the topic generally did not come up.

*4.5. Consideration of Student Needs*

This last category considers the actions carried out or described by the teacher in relation to meeting the needs of their students during ERT, encouraging them, and making sure that they maintained their learning routine and understood the content that was being taught.

Teachers in the **experienced** group invested great efforts in helping their students, provided them with additional exercises, and generated didactic reinforcement schemes and ad hoc forums for specific exercises and problems. They tried by all means to be "present": "It was important to me that if a student wanted to carry out his semester as a regular semester, then that's what we would do . . . We comment on the exercises; we do more things that are a little more as they were previously" (Shlomo).

"We were answering their questions and not letting them take care of themselves, which is something that we thought this year we would try to change, yes, we would make them take care of their problems and not just raise your hand and run to them, try to let the students cope by themselves more . . . " (Elisheva); "Let them see that I am a person behind the computer, and I will see that they are people . . . " (Michal).

While the teachers in the **enthusiastic** group invested efforts to help their students, they found themselves paralyzed by the situation of forced isolation. In many cases, "losing" students generated annoyance and frustration that led to a feeling of impotence: " . . . .In class I also lose some of the students, with all that I move around a lot, I lose some of the students, so I cannot imagine what happens in the Zoom. It bothers me a lot ( . . . ) and the students were stressed about it,—I mean because beyond that, also we . . . you know, we come to help the students, there are MA or PhD students who were experiencing difficulties and had no available help . . . " (Revital). "I have a lot of patience for my students ( . . . ), there is no question that is not a legitimate question, and I will explain to the students until they understand and I show a lot of patience ( . . . ) and also I set schedules for them, I scheduled them three times in the semester for personal meetings to find out how they are feeling and what is happening to them and all kinds of things not necessarily related to studies but more personal . . . " (Noa); "But I also felt that over time I was losing others—and when I didn't see someone in the class then I had no idea, so if I see a black screen I say, Well, he's not with me—I found myself adding three or four slides to each lesson to help them" (Moshe).

An interesting example is that of Shulamit, who expressed her teacher-based perspective: "But I did not use presentations at all, because of a thought that I want them to look at me and not start copying the presentation from the board . . . (Shulamit).

The contents of this category received almost no mention in the interviews of teachers from the **cautious** group.

In the discussion section, we analyze to what extent the practices reported by the teachers interviewed during the ERT period are consistent with the pedagogical conceptions and levels of digital literacy according to the profiles identified in our research. We try to answer the research questions, and take initial steps towards developing a Typology of Pedagogical Practices for the post-emergency situation.

## 5. Discussion

In this study, we examined the relationship between the teacher profiles identified in the emergency situation (experienced, enthusiastic, and cautious) and the willingness of teachers in these respective groups to incorporate new pedagogical practices adapted to the new virtual teaching environments.

The following sub-questions were derived from the above question:

- What are the teaching strategies employed by teachers in the ERT situation?
- Where was the teacher's gaze focused? Is there any relationship between this orientation and his/her strategies and willingness to incorporate technology in teaching?

Following analysis of the answers provided by the teachers in a situation of complete ERT, the following interesting issues deserve consideration.

### 5.1. Insight

All the teachers interviewed, without exception, spontaneously expressed the view that reality has changed and that decisions need to be made concerning the modalities for teaching practice going forward. This idea, which at first glance seems self-evident, has not come to the fore in this way in most professional practices. Unlike other professions (health, law, economics, etc.), in the case of teachers the change went far beyond mere presence in class. However, this understanding or insight regarding the new situation did not occur in the same way among the teachers belonging to the three profiles examined.

The **experienced** group quickly became aware of the seriousness of the event and the need to make significant changes in their practices. This initial perception was accompanied by an almost immediate call to action, expressed in strategic decisions and innovative practices. The pedagogic perception, in this case, may be defined as "strategic perception" based on a clear vision of the situation and an ability to think of medium- and long-term practices to address it.

Teachers in the **enthusiastic** group likewise understood the magnitude of the challenge and the need to implement changes in their practices. However, due to constraints arising from their limited experience in digital environments, they were not able to translate this into the possibility of introducing genuine pedagogical changes in their practices. We might refer to this as a "voluntarist perception"; on one hand, it is less strategic than tactical, while on the other it cannot be considered solely tactical, as it is accompanied by the intention of being able to offer students learning possibilities even in the new environments.

The perception of teachers in the **cautious** group is more complex; while they are aware of the new situation, they do not seem aware of its magnitude. In this sense, we might say that the perception is, at best, a tactical perception which they rely on to help them overcome the challenge.

### 5.2. Repertoire of Practices

The spontaneous reactions of the teachers interviewed gave rise to an exciting and varied repertoire of strategies and practices that they implemented in the first months of the ERT situation.

The teachers in the **experienced** group were characterized by substantial modification of their methodology, in most cases moving deliberately to a "flipped classroom" thanks to the training offered by the university. This modality involved the production of short videos, the combination of synchronous and asynchronous teaching, the intensification of work on the platform (Moodle) through forums and self-learning exercises, an increase in availability hours and individual meetings, changes in the evaluation modality and the syllabus in general, an increase in online work and asynchronous teams, etc.

These strategies were viewed as the product of two factors: on one hand, an intensive investment of time and effort; on the other, a focus on the needs and possibilities of the students, who were in an emergency situation as well [23]. Alongside this rich and varied repertoire of resources, teachers in the **experienced** group worked extensively

with colleagues and, where available, teaching assistants. Work with colleagues may be considered as yet another resource used mainly by this group.

Teachers in the **enthusiastic** group limited themselves to the resources they knew best and used most extensively, such as Powerpoint and Moodle. The first was the most frequently mentioned, including consideration of the possibility of adding audio and turning it into an audio class. However, this possibility simultaneously evoked the desire to make changes and the incapability of doing so in a significant way.

The **cautious** group mentioned the use of PowerPoint as the predominant resource of their new practices; however, in contrast to teachers in the enthusiastic group, the changes in PowerPoint here were at best cosmetic.

*5.3. The Teaching Gaze*

One of the questions we asked ourselves during the emergency situation was where the teacher's gaze was focused, and whether there was any relationship between this and their willingness to incorporate technology in their teaching.

One of the central concerns voiced by the teachers was the encounter with so-called "black squares," a reality in which they were forced to teach students who chose not to open their cameras on Zoom, thereby ruling out any possibility of eye contact with the rest of the group and with the teacher.

Whether intentionally or not, the absence of the student's gaze affects the teacher's gaze. In certain cases, the teacher's frustration led to a feeling of anger and personal offense; in others, it generated deep concern and redoubled efforts to "recover the lost gaze".

The teachers in the **experienced** group, whose pedagogical conception is based on meeting the students' needs [19], belong to the latter category. Far from being "offended" by the situation, they sought ways and strategies to reach their students. The teachers in the **cautious** group, whose perception is mostly "teacher-based" [12] belonged to the former category. They tended to view the students' decision not to open their cameras as a personal affront, and this situation paralyzed them.

The teaching gaze thus became a factor with a mobilizing, immobilizing, or variable effect; in the case of the experienced group, it mobilizes, among the cautious group, it immobilizes, and among the enthusiastic group the reactions are varied. Those whose teaching gaze is paralyzed remain immersed in the ERT, while those whose glance mobilizes are simultaneously part of ERL.

In sum, we can say that the teachers in the experienced group, whose level of digital literacy is high and whose level of resistance to integration of technology is relatively low, have achieved a strategic perception that allows them to plan and act, and they have a vast repertoire of resources which allows them to shift from ERT to ERL.

Teachers in the **cautious** group, whose level of digital literacy is low and whose level of technology resistance is relatively high, have retained a tactical perception that does not allow them to look at the long term and act accordingly. They have a very limited repertoire of resources, which prevents them from getting involved in their students' problems [31,32].

Teachers in the **enthusiastic** group, whose level of literacy is low and whose level of resistance to integrating technology begins to recede, especially in its psychological components, are characterized by a tactical–voluntarist perception and a limited repertoire of resources, which they try to expand in the short and medium-term.

In Figure 1, we summarize a re-characterization of the three profiles based on the results of this analysis.
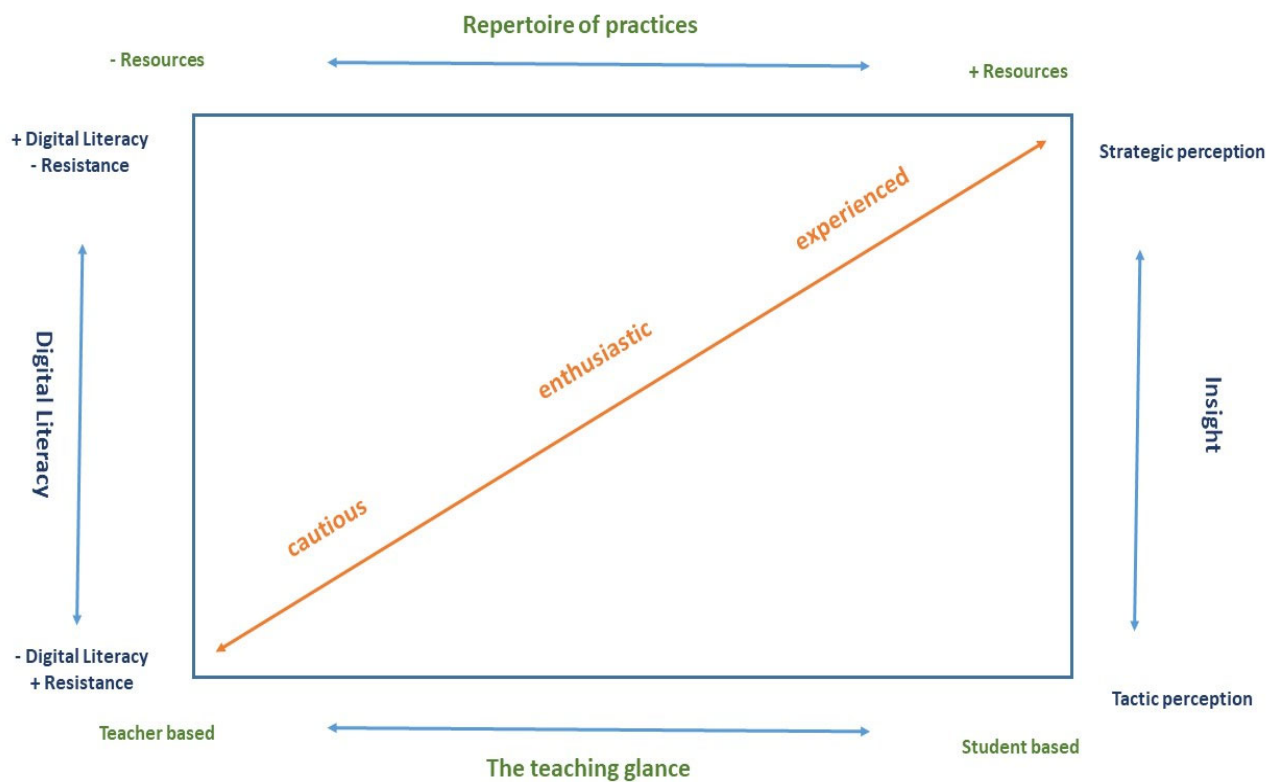
**Figure 1.** Redefinition of teaching profiles in ERT.

## 6. Conclusions

This study exposed us to a number of interesting elements of analysis that allow us to understand in greater depth the emergency situation experienced in university education since March 2020.

One key concept that allows us a comprehensive view is the concept of ERL, which invites us to shift the perspective from the teacher (ERT) to the student (ERL).

Regarding the question of how the emergency situation impacted teachers' pedagogical practice, the sub-question must be added of how this practice, in an emergency situation, generated conditions that enable autonomous or directed student learning.

As we learn from [23], when analyzing the emergency situation from a student's perspective (ERL), we find ourselves in a paradoxical situation which simultaneously includes both positive and negative experiences. The experience was a positive one as far as students were able to continue studying even in the challenging emergency situation; the negative aspect related to the lack of adequate preparation to do so, and frustration due to the lack of direct contact with the teacher and with fellow students.

If we take ERL as our key concept, we can say that the three new proposed categorizations, namely, insight, repertoire of practices, and the teaching gaze, oscillate like a pendulum between a situation of ERT and one of ERL.

The insight capacity oscillates between tactical perception, reflecting the traditional teacher-based approach. and the strategic perception, reflecting a more student-based approach.

The repertoire of practices oscillates between the traditional and directed class based on the teacher and the flipped classroom, which is more heavily reliant on the student.

Lastly, the teaching gaze and the case of the "black squares" show this oscillation very clearly, as explained in the previous chapter.

In conclusion, we can say that our three profiles are the most complete expression of this pendulum, from the cautious group immersed in the world of ERT, to the experienced group which shifted to ERL, passing through the enthusiastic group, which oscillates between ERL and ERT (see Figure 2).
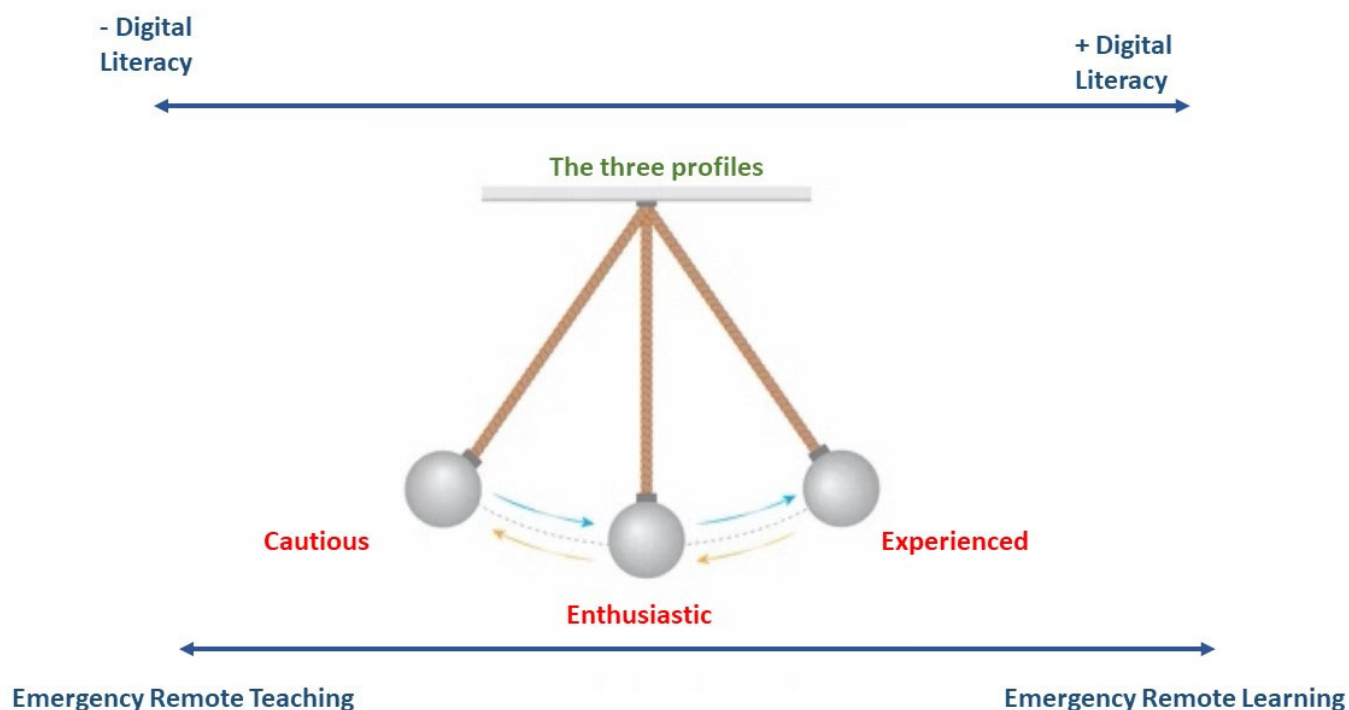
**Figure 2.** The pendulum of pedagogical practices in emergency situations.

Preparing teachers for the next emergency, with an emphasis on the enthusiastic group, is the major challenge in the development of pedagogies for emergency and post-emergency situations.

### 7. Future Directions of Research and Limitations

In this study, we analyzed pedagogical practices during the educational emergency imposed by the pandemic.

In a future study, we will propose a survey of university teachers investigating the learning obtained during this stage and its implementation (or not) in the post-pandemic era.

We are interested in knowing what we have learned and how prepared we are for the next emergency.

This research involves the same limitations mentioned our previous studies, some of which are related to methodology and others to conceptualization. From the methodological point of view, we would like to stress once again the use of mixed methods with a qualitative emphasis. This involves the arduous task of combining the two methods and the integration of the findings obtained from both.

Additionally, this qualitative thematic–interpretive research was based on data collected two years ago at the Hebrew University [11]. As with all qualitative research, the results and categories obtained must be corroborated in other comparable contexts.

## Appendix A. Protocol for the Qualitative Stage

Thank you very much for agreeing to participate in this phase of the investigation.

This in-depth interview aims to examine some of the topics already addressed in the questionnaire that you answered, to understand more deeply your conception of teaching in general, and of in-depth online teaching; to analyze the impact that the situation generated by the COVID crisis had on teaching practices; to understand how the institutional context has impacted your performance and how you believe it will do so in the future; and also to understand whether you believe that this forced step of moving into online teaching will have an impact on your future practice.

The duration of this interview is approximately one hour. If you are agreeable, it will be recorded for better use.

All data collected in this interview, as well as from the questionnaire, is confidential and will be used exclusively for this study.

During the interview, we will elaborate on the questions presented to you in the questionnaire, in order to expand and deepen the information.

Thank you for your consent to participate.

a.    Background

Examples of questions:

What area(s) do you work in? How many years have you been at the (your) University? How many in teaching?

b.    Conceptions of Teaching

Examples of questions:

In the questionnaire, you answered that you considered yourself a _____ teacher. Can you elaborate? How do you usually prepare your classes? What kind of resources do you use? Before the crisis, did you use technological tools? How? Which ones?

c.    The impact of online teaching on your practices

Examples of questions:

In the questionnaire, you told us about your feelings in the face of the crisis; can you expand on them? How were you able to cope with it? Did you have the possibility of preparing yourself? In addition to video conferencing, did you use other tools? Did you notice differences between the first class and the last class you taught? What kind of differences?

Were you able to take advantage of the tools offered by the different environments? Did you continue teaching as before? Did you notice changes?

Can you share an example of "good practice" during this period? Can you tell us about a frustrating incident/experience?

How do you think this experience affects your teaching? How does it affect your students? How do you evaluate or plan to evaluate the students' achievements?

How do you approach the subject of evaluation now?

d.    The institutional perspective

Examples of questions:

In the questionnaire you told us that the institution you work at . . . Could you expand: What do you emphasize, and what could have been better? Did you feel like you could conduct yourself freely in your teaching?

e.    The return to the next semester: conventional teaching or "zoom teaching"

Examples of questions:

In the questionnaire you offered your perceptions regarding the end of the crisis. Can you elaborate? How do you foresee the return to the conventional teaching/frontal classes? How do you conceive the new situation? told about your views.

How do you define "normality"? Would you like to return to the kind of teaching practice that you used before the crisis? Do you think that it is likely to change? How? Why? Will the change be due to your own initiative or will it be imposed by your institution?

What are your expectations concerning your institution following the return to "normality"?

## References

1. Dorfsman, M.; Horenczyk, G. El cambio pedagógico en la docencia universitaria en los tiempos de COVID-19. *Rev. De Educ. A Distancia (RED)* **2021**, *21*. [CrossRef]
2. Dorfsman, M.; Horenczyk, G. The coping of academic staff with an extreme situation: The transition from conventional teaching to online teaching. *Educ. Inf. Technol.* **2022**, *27*, 267–289. [CrossRef]
3. Admiraal, W.; Louws, M.; Lockhorst, D.; Paas, T.; Buynsters, M.; Cviko, A.; Janssen, C.; de Jonge, M.; Nouwens, S.; Post, L.; et al. Teachers in school-based technology innovations: A typology of their beliefs on teaching and technology. *Comput. Educ.* **2017**, *114*, 57–68. [CrossRef]
4. Venkatesh, V.; Thong, J.Y.; Xu, X. Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Q.* **2012**, *36*, 157–178. [CrossRef]
5. Eshet-Alkalai, Y. Digital literacy: A conceptual framework for survival skills in the digital era. *J. Educ. Multimed. Hypermedia* **2004**, *13*, 93–106.
6. Bao, W. COVID-19 and online teaching in higher education: A case study of Peking University. *Hum. Behav. Emerg. Technol.* **2020**, *2*, 113–115. [CrossRef]
7. Demuyakor, J. Coronavirus (COVID-19) and Online Learning in Higher Institutions of Education: A Survey of the Perceptions of Ghanaian International Students in China. *Online J. Commun. Media Technol.* **2020**, *10*, e202018. [CrossRef]
8. Hodges, C.; Moore, S.; Lockee, B.; Trust, T.; Bond, A. The difference between emergency remote teaching and online learning. *Educ. Rev.* **2020**, *27*, 1–12.
9. Toquero, C.M. Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. *Pedagog. Res.* **2020**, *5*, em0063. [CrossRef]
10. Blau, I.; Peled, Y. Teachers' Openness to Change and Attitudes towards ICT: Comparison of Laptop per Teacher and Laptop per Student Programs. *Interdiscip. J. E-Learn. Learn. Objects* **2012**, *8*, 073–082. [CrossRef]
11. Brown, K.L. From teacher-centered to learner-centered curriculum: Improving learning in diverse classrooms. *Education* **2003**, *124*, 49–55.
12. Emaliana, I. Teacher-centered or student-centered learning approach to promote learning? *J. Sos. Hum.* **2017**, *10*, 59. [CrossRef]
13. Kálmán, O.; Tynjälä, P.; Skaniakos, T. Patterns of university teachers' approaches to teaching, professional development and perceived departmental cultures. *Teach. High. Educ.* **2020**, *25*, 595–614. [CrossRef]
14. Fishbein, M.; Ajzen, I. *Predicting and Changing Behavior: The Reasoned Action Approach*; Taylor&Francis: New York, NY, USA, 2011.
15. Tarling, I.; Ng'Ambi, D. Teachers pedagogical change framework: A diagnostic tool for changing teachers' uses of emerging technologies. *Br. J. Educ. Technol.* **2016**, *47*, 554–572. [CrossRef]
16. Davis, F.D. *Technology, Acceptance Model: TAM. Information Seeking Behavior and Technology Adoption*; Al-Suqri, M.N., Al-Aufi, A.S., Eds.; IGI Global: Hershey, PA, USA, 1989; pp. 205–219.
17. Venkatesh, V.; Davis, F.D. A theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Manag. Sci.* **2000**, *46*, 186–204. [CrossRef]
18. Venkatesh, V.; Bala, H. Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decis. Sci.* **2008**, *39*, 273–315. [CrossRef]
19. Venkatesh, V.; Morris, M.G.; Davis, F.D. User acceptance of information technology: Toward a unified view. *MIS Q.* **2003**, *27*, 425–478. [CrossRef]
20. Murphy, M.P. COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemp. Secur. Policy* **2020**, *41*, 1–14. [CrossRef]
21. Cahyadi, A. COVID-19 Outbreak and New Normal Teaching in Higher Education: Empirical Resolve from Islamic Universities in Indonesia. *Din. Ilmu* **2020**, *20*, 255–266. [CrossRef]
22. Shisley, S. Emergency remote learning compared to online learning. *Learn. Solut.* **2020**, 1–15.
23. Rahiem, M.D.H. The Emergency Remote Learning Experience of University Students in Indonesia amidst the COVID-19 Crisis. *Int. J. Learn. Teach. Educ. Res.* **2020**, *19*, 6. [CrossRef]
24. Bertaux, D. La perspectiva biográfica: Validez metodológica y potencialidades. In *La Historia Oral: Métodos Y Experiencias*; Cristina Santamarina, P.J.M.M.Y., Ed.; Debate: Madrid, Spain, 1993; pp. 149–173.
25. Navarrete, J.M. El muestreo en la investigación cualitativa. *Investig. Soc.* **2000**, *4*, 165–180. [CrossRef]
26. Richards, L.; Morse, J. The integrity of qualitative research. *Readme First A User's Guide Qual. Methods* **2007**, 25–44.

27. Braun, V.; Clarke, V. Thematic analysis. In *APA Handbook of Research Methods in Psychology*; Cooper, P.M.C.H., Long, D.L., Panter, A.T., Rindskopf, D., Sher, K.J., Eds.; American Psychological Association: Washington, DC, USA, 2012; pp. 57–71.

28. Miles, M.B.; Huberman, A.M. *Qualitative Data Analysis: An Expanded Source Book*, 2nd ed.; Sage: Thousand Oaks, CA, USA, 1994.

29. Willgens, A.; Cooper, R.; Jadotte, D.; Lilyea, B.; Langtiw, C.; Obenchain-Leeson, A. How to Enhance Qualitative Research Appraisal: Development of the Methodological Congruence Instrument. *Qual. Rep.* **2016**, *21*, 2380–2395. [CrossRef]

30. Fox, R. SARS epidemic: Teachers' experiences using ICTs. Paper presented at the Beyond the comfort zone. In Proceedings of the Beyond the Comfort Zone: Proceedings of the 21st ASCILITE Conference, Perth, Australia, 5–8 December 2004.

31. Alenezi, A. Obstacles for teachers to integrate technology with instruction. *Educ. Inf. Technol.* **2016**, *22*, 1797–1816. [CrossRef]

32. Graves, K.E.; Bowers, A.J. Toward a Typology of Technology-Using Teachers in the "New Digital Divide": A Latent Class Analysis of the NCES Fast Response Survey System Teachers' Use of Educational Technology in U.S. Public Schools, 2009 (FRSS 95). *Teach. Coll. Rec.* **2018**, *120*, 1–42. [CrossRef]