# Scaffolding Novice L2 Teachers' Cognitions of Classroom Management: A Sociocultural Perspective

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# Abstract

Despite the substantial body of knowledge on classroom management (CM), there is little research addressing the developmental growth of novice teachers' cognitions of CM. Drawing on mediation and microgenetic analysis components of sociocultural theory, the present study aimed to investigate the contributions of a scaffolding initiative to language teachers' cognitions of CM. The initiative involved mediating the teachers' cognitions by prompting a number of central notions in CM to the teachers and investigating their own video-recorded classroom instruction. Data analyses indicated that the teachers navigated the process through the stages of CM-related conceptual change, developmental practice-informed awareness of CM, and heightened expertise in representing CM. The findings of the study imply that novice teachers need more attention from policymakers and teacher educators to facilitate the process of transition to professionalism in the beginning of their career, particularly developing heightened awareness of the importance of CM in their instruction.

# Introduction

Classroom management (CM) has long been a complex topic and an enduring source of concern within educational contexts. The reason may lie in the fact that CM not only requires creating appropriate physical conditions, but also involves establishing effective rapport with students (Brophy, 2011). This conceptualization of CM is far-reaching, one that redefines the concept as a cardinal instructional consideration underlying classroom events. CM is assumed to be directly linked to the moment-by-moment progression of instruction and its associated reverberations as well as the macroscopic sphere of educational management. This point has been highlighted by Evertson and Weinstein (2011) in the sense that 'management problems continue to be a major cause of teacher burnout and job dissatisfaction; and the public repeatedly ranks discipline as the first or second most serious problem facing the schools' (p. 3). This multi-dimensionality requires CM to be viewed as a central concern of policymakers and teacher educators as the implications of CM materialized in the classroom are likely to be extended to socio-educational functioning of individuals and contribute to 'the pupils' social and moral development' (Postholm, 2013, p. 389).

Speaking of classroom rules as fundamental to CM, Alter and Haydon (2017) carried out a literature review on information provided to pre-service and in-service teachers in relation to classroom rules. The findings of the review indicated that two significant features characterizing 'effective classroom rules are teaching the rules to students and tying rules to positive and/or negative consequences' (p. 114). In a similar vein, Doyle (2006) speaks of an ecological perspective of CM which rests upon a number of dimensions already existing in a classroom that combine to create real-time pressure on the participants. These dimensions include multidimensionality, simultaneity, immediacy, unpredictability, publicness, and history. Underlying these features is the proposition that teachers are already faced with a demanding task of being able to strike order in class whose realizations are found in classroom activities. These dimensions 'are the origins of the task of classroom management, namely, to establish and sustain order (cooperation) in educative activities that fill the available time' (Doyle, 2006, p. 99), pointing to the central role of teachers in establishing and maintaining effective management in the class.

Although CM is typically conceived of as a concern for all teachers at some stage(s) of their professional career, it has mostly been documented to be challenging for novice teachers (e.g., Davis, 2018; Evertson & Weinstein, 2011; Konig & Krammer, 2015). The reason lies in the fact that the range of responsibilities novice teachers need to handle – from institutional policies, to curricular demands, to methodological considerations, to assessment issues, to individual differences among the learners, to their own learning-to-teach process, etc. – is so demanding that novice teachers need time to integrate various dimensions of their work in order to provide quality instruction. Novice teachers' CM has received considerable empirical attention in the literature (e.g., Wolff et al., 2014; Wolff, Jarodzka, & Bosuizen, 2017; Wolff, Jarodzka, van den Bogert, & Bshuizen, 2016). However, little research has been done on mediating novice teachers' cognitions of CM developmentally in order to track how scaffolding their cognitions influences the trajectory of their CM-related cognitions. Such a proposition is instructionally effective as addressing novice teachers' CM-related cognitions developmentally is more likely to be conducive to enhancing their awareness of how CM works and the way it comes to define their instruction.

## The present study

The present study is informed by sociocultural theory (SCT). Three elements are central to SCT including mediation (internalizing the external), social learning (engagement in social activities shaping cognition), and genetic analysis (an analytical tool for documenting learning/cognitions) (Warschauer, 2005). In this regard, mediating teachers' cognitions points to what teachers 'can do on their own without assistance and a proximal level they might attain through strategically mediated assistance from more capable others' (Warford, 2011, p. 253). The second component, social learning, refers to the way engagement with and participation in various social activities define and develop individuals' cognitive make-up, coupled with the socio-historical bearings already existing within the learning context. To view cognition as context-bound, situated, and developmental more often than not requires conceptualizing cognitive development as 'the observation of skill acquisition during a learning event' (Belz & Kinginger, 2003, p. 594). The third element of the SCT, genetic analysis, facilitates tracking such development through which 'it is possible to understand many aspects of mental functioning only if one understands their origins, or histories, and developmental process' (Warschauer, 2005, p. 43).

Although the application of the SCT to explaining (language) teacher cognition(s) has found solid grounds in understanding how context mediates cognitions, little research has specifically explored its application to explaining teachers' CM-related cognitions, particularly novice teachers' cognitions. The SCT is potentially useful in better understanding teachers' CM-related cognitions due to a number of reasons. First, a classroom is by nature a social milieu which contributes to the way individuals develop and negotiate their thoughts, identities, etc. CM is also per se a kaleidoscopic undertaking, accompanied by its particularities in one or different classes. CM is, thus, so dependent on classroom peculiarities that it not only influences the way pedagogical activities proceed, but it also defines and affects the learners' social functioning within a given context (Postholm, 2013).

Second, the abovementioned dimensions of classroom atmosphere delineated by Doyle (2006) further point to how demanding CM is, particularly considering the current agreed-upon conceptualization of the concept and teachers' determining role in moving classroom activities forward. Gatbonton (2008, p. 178) argued that 'teacher training may accelerate the speed with which teachers can acquire the knowledge and skills needed for active teaching rather than have to wait for long term accumulation of this knowledge and skills through experience'. The implication is that mediating teachers' CM-related cognitions could provide them with a more comprehensive perspective of how management works and how influential it is in successful classroom performance.

Third, besides the point that mediating novice teachers' cognitions of CM has been under-researched in the literature, the fact that CM is often under-represented in teacher education programs (e.g., Davis, 2018) augments the need for providing novice teachers with assistance to internalize CM-related concepts as by such internalization 'candidates demonstrate their capacity to use the pedagogical knowledge and skills espoused by their particular program' (Warford, 2011, p. 255). Such issues require novice teachers to be aware of the level of systematicity inherent in CM and its substantial role in how to establish a learning-conducive environment. Against the background presented, the present study aims to explore the impact of a scaffolding initiative on novice language teachers' CM-related cognitions. The questions the study addressed were:

1. How do novice language teachers' cognitions of classroom management, as realized in their interviews and reflective journals, change as a function of exposure to a scaffolding initiative?
2. What developmental trajectory do the novice teachers' cognitions of classroom management follow during exposure to a scaffolding initiative?

# Methods

## Participants

The participants of this study were six novice L2 teachers (T1, T2, T3, T4, T5, and T6) whose teaching experience was two years, on average. Their age ranged from 22 to 25 and they had completed their education in TEFL (N = 3), Translation Studies

(N = 2), and Literature (N = 1). The teachers mainly taught intermediate students. There were, on average, 13 learners in each of the classes taught by the teachers.

## Data collection

Data for this study were collected at three stages: before, during, and after the scaffolding initiative. Prior to the initiative, the teachers were interviewed semi-structurally (an average of 20 minutes per teacher) to explore their understanding of CM. The questions in this round of interviews revolved around the teachers' definition of the concept, their conceptions of how CM influences classroom events, and their own and the learners' role in CM. The interviews were audio-recorded for further analysis. The details of the scaffolding initiative have been explained below. After the scaffolding initiative, the teachers were interviewed again to explore how/whether exposure to the initiative had influenced their CM-related cognitions. The questions in this round of interviews (on average 30 minutes per teacher) were similar to those before the initiative in addition to questions about the impacts of the course on their CM-related cognitions and practices in the post-scaffolding interview. The interviews and the video-viewings were conducted in Persian – the participants' L1.

### The scaffolding initiative

The primary step in enacting the initiative was identifying the notions to be presented to the teachers in order to mediate their cognitions of CM. In this regard, a literature review was carried out on the notions central in CM, mainly based on Wolff et al. (2014), Brophy (2006, 2011), and Davis (2018). The notions included *management of discipline*, *activity-flow management*, *multiplicity of instructional activity (students, teacher)*, *connectivity of activities*, *the effect of current activities on the occurrence of forthcoming occurrences*, *the role of the teacher (both talk and practice) in managing the class*, *management effects on student learning*, and *time management*. These eight notions were to be prompted to the teachers in a developmental manner, as explained below.

The design of the initiative consisted of class video-viewing (as one tool through which teachers' cognitions could be mediated, as suggested by Warford, 2011) accompanied by prompting the relevant notions. The teachers' classes were video-taped and then the teachers and one of the researchers watched the video(s) in order to obtain the teachers' understanding of CM. Seven sessions of each teacher's classes were videotaped, overall 42 classroom video-recordings. Each class lasted one and a half hours and each video-viewing session lasted about two hours, overall around 80 hours of joint video-viewing. The reason for recording seven sessions was that in the first session of video-viewing, no notion was prompted and we aimed to obtain the teachers' understanding of CM by asking them to respond to the question: What (positive and negative points) do you see that is related to classroom management? From the second to the fifth video-viewing sessions, two notions were introduced to the teachers per session (hence the eight notions) in order for the teachers to consider as lenses through which they could appraise their own instruction. To do so, one of the researchers explained each notion to the teachers in depth and provided related concrete examples so that the teachers could fully grasp the essence of the notion and analyse the videos collaboratively (Warford, 2011).

This method of video-viewing was in line with Warford (2011) in that mediating teachers' cognitions 'should be grounded in the experiential concepts that emerge from their own learning autobiographies and exploration of contemporary classroom realities' (p. 254). The last two video-viewings aimed to ascertain that the teachers' verbalizations during the previous scaffolding sessions had not been restricted to the specific notion introduced in that session. For example, when the notion of *connectivity of activities* was to be introduced to the teachers, there was the danger of verbalizing those aspects of instruction that are specifically about connectivity among the activities and not verbalizing other CM-related aspects. This problem was quite natural to come up towards the final introduced notions as those notions introduced in the final sessions were likely not to emerge in the preceding sessions. In order to deal with this problem, we further video-taped two more sessions of the teachers' classes to move beyond notion-specific verbalizations and examine the extent to which the teachers had internalized the notions beyond particular video-recordings.

It must be pointed out that consecutive sessions of the teachers' classes were not videotaped in order for the teachers to grasp a fuller understanding of the prompted notions and as the classes of the language school were run three sessions per week, each week one session of the teachers' classes were videotaped and watched. In addition to the video-viewings, the teachers were asked to document their ongoing reflections in a teaching journal. In this regard, the central questions guiding the journals were partly informed by those proposed by Richards and Lockhart (1994) mingled with insights from Davis (2018) in terms of documenting how/whether exposure to the scaffolding initiative had influenced the teachers' CM-related cognitions and stated practices. The whole process lasted about two months as between the fifth video-viewing and the last two ones there was a time lapse of one week to obtain a more solid understanding of whether the teachers had internalized the notions.

## Data analysis

In order to analyse the interviews based on the analysis of teachers' video-recorded performances, the microgenetic analysis technique (Vygotsky, 1978) was employed. Microgenetic analysis has the advantage 'to concentrate not only on qualitative descriptions of stages of expertise but also to consider transition phenomena that accompany the progression from novice to expert status' (Brown, Bransford, Ferrara, & Campione, 1983, p. 84). As microgenetic analysis focuses on documenting qualitative changes in mental functioning in a number of meetings (Calais, 2008), it better suited data analysis in the present study. Siegler (2007) discusses three types of microgenetic analysis the third of which 'involves presenting [teachers] with an unusually high density of an experience, with the goal of speeding up the typical developmental process, thus allowing more detailed analysis of change than would otherwise be possible' (p. 20) and was applicable to the present study.

The analysis of the audio-recordings involved two stages. First, based on the notions prompted in the scaffolding initiatives, a scale was developed to count the frequency of the teachers' relevant verbalizations across all the sessions. This was done to identify the notions that were dominantly internalized by the teachers when verbalizing their CM-related cognitions cumulatively, particularly in the final two sessions. Second, the teachers' verbalizations were qualitatively analysed to explore the changes in their representations across all the sessions. Regarding the interviews and reflective journals, thematic analysis, which is 'a method for identifying, analysing and reporting patterns (themes) within data' (Braun & Clarke, 2006, p. 79) was utilized. The data from the interview protocols and journal entries were inductively analysed to come with an in-depth understanding of the data and the related themes were then identified.

## Findings

In what follows, we present the findings obtained from the interviews, the reflective journals, and the verbalizations, respectively.

## Classroom management: From discipline to Batman's cape

In the initial interview, the teachers unanimously defined CM as the ability to strike order in the classroom. Although two of the teachers also referred to the importance of time management, their comments were mostly concerned with discipline in the classroom, stressing that "*discipline and order are necessary to carry out other activities*" (T2). The common thread among all the definitions revolved around the centrality of the learners in agitating the classroom atmosphere:

Classroom management, in my opinion, is about whether you are able to control the learners. You know, some students talk a lot and if you are able to control them, you can work easily. (T3, First Interview)

Regarding teacher/learner role in CM, the teachers pointed to the unmanageable students who had bothered them by asking irrelevant questions, taking class time by engaging in activities that had not initially been part of the teachers' plan, and not doing the assigned tasks/activities. Two points were fundamental to the teachers' understanding of role relationships. The first was that the teachers seemed to have been submissive to their students' desires, which had made them lag behind the intended lesson plan: "*I have faced this problem a lot. For example, one of the students says, "teacher, let's play a game" and other students join him in pushing the request forward. What can I do when all of them want it?"(T5)*. The second point pertained to the less-frequent references to a central role for the 'teacher' in managing the class. Across the teachers'

responses, the dominant lens through which they viewed CM was a subordinate role for themselves, even in the way classroom activities are to proceed.

After the course, the teachers' understanding of CM seemed to have been restructured in that their definition of the concept was colored by the notions they were exposed to in the scaffolding initiative and they considered a more central role for teachers in the successful accomplishment of CM. A common thread running through all the definitions was a view of the concept as an overarching undertaking which undergirds all classroom activities. This was best reflected in T4's metaphorical comment: *"classroom management is like Batman's cape which covers all classroom activities and tells you what to do, how to do it, where your class is leading to, and what you can expect at the end of the day"*.

As to the role of teachers and learners in CM, the teachers now viewed it as an undertaking carried out by both teachers and learners: *"We are not alone in class and it is both my students and I who should work together to move the class forward. I think that now I better understand how to do it" (T2)*. The teachers stated that the scaffolding initiative had assisted with their understanding of CM in three ways of (a) macroscopic management of their classes, (b) activity management, and (c) centrality of the teacher's role. The first one was related to the awareness-raising potential of the initiative in that by explaining their expectations to the students – as the review by Alter and Haydon (2017) indicated – in the initial sessions of the class (especially from the upcoming semesters on) and adherence to the expectations over the course of instruction, the teachers would face fewer problems:

The [scaffolding] sessions not only helped me with knowing what to do, but also what not to do. I think that I am feeling more powerful if I explain to my students what I want from them. This increases my authority too as when I tell them my expectations clearly, we face fewer problems. (T5, Second Interview)

Managing the activities effectively was, reportedly, another positive impact of the initiative. The teachers pointed out that they gradually became more aware of how to manage the activities sequentially, what to do before each activity, and how to connect them logically so that the class moves forward smoothly. The teachers put special emphasis on the point that they could now see how different considerations including their own role, learners' role, activities, etc. could function interactively in classroom progression:

To be honest, now I think that I used to have many problems in how to do the activities. I don't say that I don't have any problems now but I have become much better. Something interesting I do is that when I want to start an activity I stop for a moment to have everybody's attention and then I start the activity. This way everybody is with me. (T6, Second Interview)

The third point was related to teachers' role in CM. The teachers came to appreciate the centrality of appropriate lesson planning in CM and their own roles in controlling and behaving towards the, especially disruptive, students. The teachers' responses marked their ability to take the initiative in managing their classes, which was evident in their discourse:

I have known my abilities better than past. I remember that then [the first interview] I complained about my learners' behavior but now I can control them better by doing the activities in a way that does not let them go off on a tangent. (T4, Second Interview)

## Classroom management: growing awareness

The analysis of the teachers' reflective journals indicated that parallel with the scaffolding sessions, the teachers' awareness of CM grew more. One of the teachers mentioned that in the first session it had been difficult for her to figure out how to view her own classroom practice as she was primarily concerned with the quality of her instruction, yet this problem had been resolved from the subsequent sessions on. The teachers' developing awareness featured developing cognitions associated with CM motivated by their emergent sense-making in action (Kubanyiova & Feryok, 2015). Two major components constituted the associated cognitions, one set in light of the notions introduced and one set the developing cognitions common across journal entries. Indicators of the first set were the teachers' noticing of the notions introduced in the subsequent classroom sessions and looking for moments relevant to the notion: *"Today we analysed the video in terms of*

*time management. In the class [after video-viewing] I was very curious to see how I manage the time in my own class for doing various activities"* (T2).

Connectivity of the activities and participant role were two notions common across most of the teachers' journal vignettes. As with the first one, the teachers reported that seeing the interconnectedness of various activities had been influential in the way to move the class forward and to present activities that are integrated:

When I became aware of the importance of connecting the activities, I thought more about how I myself do it. In the class I tried to connect the activities and it was good but when I went home I thought more about this. I realized that I can mix the songs and speaking or reading and speaking. I did this in the class and I feel that both of us [teacher and students] enjoyed it. At least, I enjoyed it! (T1)

Regarding participant role, while the teachers initially lamented over the undesirable behavior of their learners largely, they gradually considered a more active, influential role for themselves in CM. Although the teachers still reported some examples of disruptive learner behavior even in their final vignettes, they reported higher levels of ability in managing these students by familiarizing themselves with the learners' style and appropriately utilizing classroom peculiarities to treat them: *"I used to think that I am on my own side and they [students] are on their side and there should always be a distance between us. I still think that in some classes this is important but I also know that this is not something that works in all the classes and it is very important who you are working with"* (T3).

## Microgenetics of CM-related verbalizations

As pointed out earlier, the teachers' representations were analysed at two levels. First, the teachers' articulations were tallied, counted, and tabulated across all the sessions with reference to the introduced notions (Table 1). Second, qualitative changes in the teachers' verbalizations were tracked developmentally.

Table 1 indicates that the teachers' representations in the first session – prior to the introduction of the notions – is dominantly concerned with disciplinary issues, followed by *time management* as the second dominant theme. From the second session to the fifth session, the teachers' verbalizations featured frequent references to the presented notion(s), yet the teachers referred to other aspects which were part of the other notions. The total number of verbalizations in these sessions was more than those of the first session, which was mainly due to the introduced notion(s). However, the teachers provided other CM-related representations, which were more/fewer than those of the first session across each of the components, with their totals being higher than those of the first session. Although verbalizations in the final two sessions were lower than those in the preceding scaffolded sessions, their comparison with the first session shows a considerable growth across all the components of CM, except for *discipline* and in the case of *time management* this number was equal. Additionally, among all the components, *discipline* was the most highly represented theme (N = 144), followed by *teacher role* (N = 128).

Qualitative analyses of the teachers' verbalizations across the video-viewing sessions provided further support for the results presented in Table 1. Change in the teachers' representations was marked by several threads including ease of articulation, enhanced reasoning, and notion-specific cognitive growth as well as notion integration in CM-related generalizations. Regarding the first theme, the teachers developed further awareness of how to *see* the videos in that they gradually faced fewer problems in articulating their cognitions, getting familiar with the process of video-viewing. In addition, they gradually came to shed their concerns associated with video-viewing. Initially concerned about their instructional quality, the teachers gradually developed a sense of comfort about viewing their videoed instruction.

As to the second change, while the teachers' initial representations were marked by plain descriptions of classroom events, they gradually provided more reasoning for their interpretations of the events, motivated mainly by classroom realities mingled with their experience of the scaffolding initiative. In what follows, chains of interaction between one of the researchers and the teachers are reported, which provide further explanation for the teachers' developed interpretational reasoning. T and R refer to "teacher" and "researcher", respectively. In the first excerpt, while the teacher initially explains that the source of her reasoning

for teaching vocabulary has been her spontaneous sense-making, in the second excerpt she articulated a deeper reasoning for her practice, motivated by connecting the activities and her reflection-in-action.

T3: The first session

T: I did this activity [teaching vocabulary] innovatively because suddenly it occurred to me to do it this way.

R: Would you please explain more?

T: I thought that I should do it another way and that's why I did it. It was not bad.

R: Uhum.

T3: The sixth session

T: I taught the words [about animals] because I felt that the classroom atmosphere lets me do it.

R: What do you mean? Would you explain more?

T: I noticed that the students were talking about animals [in their L1] and I thought that it is a good opportunity to connect the vocabulary about animals to what they were talking about.

The teachers articulated their CM-related cognitions with more ease towards the end of the initiative. This facilitated articulation was observed in terms of retaining the preceding notions, coupled with learning new notions in a continual process of (re)constructing their associated cognitions. Their reference to the multiplicity and integratedness of factors influencing classroom events was accompanied by other preceding notions along with the specific notions introduced in the sessions. For example, regarding discipline in the class, the teachers gradually came to recognise other likely sources of disorder including tasks, the students, the teacher, etc., while they dominantly ascribed disorder to the learners in the initial session(s). In the following example about discipline, T4 has gradually internalized the previous notions and represents her ongoing understanding on the basis of a structured mindset, guided by the connectivity of activities.

Ashkan is like fire [the teacher pants with mild anger]. He does not sit on his table. And the manager tells me to treat him kindly. You see what kind of person he is: nosy and talkative. (First Session)

I have many talkative students. Come on kid, what's wrong with you? Sit on your chair! When Maryam's [a student] mother is there waiting for her outside, she becomes worse. She just needs to realize one of the other students is laughing at what she says. Oops! She becomes uncontrollable. (Second Session)

I thought about our previous session [the notion of discipline had been introduced in the preceding session] and I think that you are to some extent right. For example, sometimes when a student wants to laugh, I also smile but I think that I need to control where to do it. You know, I don't want to be so strict but I see that it helps with discipline in the class. (Fourth Session)

Sometimes I think that some tasks also make the class disorderly. For example, in choral tasks it is natural for the class to be noisy but I can use my own skills to strike order and change their behavior. I bother myself with this [thinking about it] a lot but I think that it is natural. (Fifth Session)

I now explain to them how to work on the songs chorally. I used to do this but just the starting point. Now I use that ertebate faaliatha [connectivity of activities] you told me to warm-up their understanding of the content first, and then tell them what we are going to do sequentially. I have less problems in controlling them. I control them by the activities [smiles]. (Seventh Session)

Another excerpt is T6's verbalizations from the first session to the last session about teachers' role in CM. This excerpt indicates that the teacher gradually considered a more central role for himself regarding how to manage the disruptive

students. The teacher did this via artefacts that could mitigate the relationship between them, enhancing his familiarity with learners' style (in the last session) as the major tool to control them.

Some of the students, like Mahyar, talk very much and ask a lot of irrelevant questions. I can control them very hard. (First Session)

Today I asked Peiman [as one of the talkative students] to go and bring me a glass of water. Peiman talked less than the previous session and became more attentive. It might be because of what I told him to do. (Second Session)

I think that what I did in the past week worked well as when I told Mahyar to collect the students' notebooks he became a 'good boy' and he, as the leader of disruptive students, did not agitate the class. (Fourth Session)

I think that I have found a good way to control the students. I tell them to do things and by this we establish a better relationship and to be honest they get carried away. (Fifth Session)

What I see is that if we [teachers] know what kind of a person the student is and use their positive points we can control them much better. (Seventh Session)

## Discussion

This study aimed to explore the contributions of a scaffolding initiative to novice language teachers' cognitions of classroom management. The results indicated that the teachers experienced restructurings in their cognitions about CM as a function of exposure to the scaffolding initiative. The teachers navigated this process through the stages of CM-related conceptual change, developmental practice-informed awareness of CM, and heightened expertise in representing CM. In what follows, we discuss the results of the study in light of this three-pronged explanation.

Change in the teachers' CM-related cognitions was marked by moving from a fragmented knowledge base of CM towards an integrated, solidified one. While the teachers initially had a single-sided viewpoint guided by mere concerns with striking order in the class and considering learners as the major disruptors of CM, their post-scaffolding responses echoed viewing the concept as a more integrated undertaking hinging on all the contributing factors in a classroom. This finding in line with the previous studies (e.g., Konig & Krammar; Wolff, et al., 2014) in that novices have yet to develop a comprehensive outlook of classroom activities and its idiosyncrasies. Additionally, change in the teachers' definition of CM and its impacts indicates that they have undergone a conceptual change, what Kubanyiova (2012) envisages as 'a transformation of existing belief systems' (p. 8). Kubanyiova presents two approaches to teacher change, namely empirical-rational and normative-reeducative, with the former being the traditional perspective of change as occurring in training courses and the latter emphasizing the developmental process of change in teacher learning. As the data related to the participating teachers' interviews indicated, their cognitions about CM had undergone conceptual change, which was evident in the teachers' discourse, conceptualization, and attitude towards CM.

Kubanyiova (2012) further holds that '[t]eacher learning … entails more than simply adding new concepts to the teacher's knowledge base; it also involves the restructuring of existing knowledge representation' (p. 36). The findings of the study from the interviews showed that the teachers not only conceptualized CM differently after the scaffolding initiative – for example the metaphor of Batman's cape, but they also considered the concept in light of the triadic conceptualization of macroscopic CM, centrality of teacher role, and connectivity of activities. This finding indicates that the teachers' knowledge of CM has been restructured in two major ways. First, it seems that exposure to the initiative has enabled the teachers to develop more cognizance of how various participants operate in the classroom, particularly their own role, which has influenced their identity as a teacher. As one of the teachers after the initiative stated: "I feel that I am more of a teacher now".

Second, the teachers' ability to connect the activities in a more effective way shows that the scaffolding initiative has enabled them to tackle an oft-reported problem with novice teachers' practice in that novices 'tend to be overwhelmed by the multiple simultaneous events and they are unable to interpret them in relation to each other' (Tsui, 2009, p. 193). Furthermore, this

finding indicates that the teachers have improved in terms of dealing with the demanding dimensions already existing in a classroom delineated by Doyle (2006), particularly the simultaneity of activities[1]. Additionally, as this aspect of novice teachers' practice has been considered problematic, the findings of the study attest to Gatbonton's (2008) proposition vis-à-vis the potential of training the teachers to accelerate the process of acquiring competencies required for active teaching. In this vein, it appears that due to the all-embracing nature of CM in defining classroom activities, this process of acquiring CM competencies has been more propitious in comparison to other areas of teacher knowledge in this study.

Kubanyiova and Feryok (2015) have recently introduced the idea of emergent sense-making in action to explain 'how ecologies of language teachers' inner lives … unfold in contexts of their practice' (p. 438). The teachers' reflective journal entries demonstrated that they attempted to extend their learning from the scaffolding sessions to the context of their instruction. Specifically, the teachers' emphasis on participant role and activity connectivity – as two real-time classroom spontaneities – indicates that the scaffolding initiative has enabled them to become more aware of the *ecologies* and *immediacies* of their practice. Awareness is 'the capacity to recognize and monitor the attention one is giving or has given to something' (Freeman, 1989, p. 33). Recognizing classroom realities coupled with linking them with their learning from the scaffolding sessions and further seeing how these unfold in practice seems to have developmentally broadened the teachers' outlook of CM. However, this awareness does not seem to have only been scaffolding session-specific and the teachers seem to have experimented with novel practical aspects to manage their classes better – such as familiarizing themselves with learner style. This mentality extension indicates that the course has made the teachers more reflective (Maher & Prescott, 2017) of classroom realities and they have transferred their awareness from the scaffolding sessions to the context of their teaching (Wang, 2015).

The teachers' reference to noticing the introduced notions in their practice shows that they have developed a primary schematic knowledge loop informed by the notion(s), which has been followed by their effort to verify the loop in a practical sense. As thus, this dynamic process of notion-practice interconnection – what Warford (2011) terms "theory into practice" – seems to have solidified the teachers' uptake of how the notion unfolds in practice. Teacher noticing has been defined as 'teachers' awareness of features of second language classroom interaction that may influence student learning' (Jackson & Cho, 2016, p. 4). Jackson and Cho (2016) found that 'teacher noticing can lead to certain specific pedagogic actions that pertain to spontaneous management of learning opportunities aimed at the whole class, as when teachers conduct impromptu whole class reviews … or nominate certain students and not others' (p. 15). This finding has clear implications for CM, yet the scope of research on the nexus between teacher noticing and CM is limited and thus further research is needed to explore the connection in more depth.

The analysis of the teachers' verbalizations demonstrated that they grew in representing CM compared to their initial representations. Particularly, the range of cognitions verbalized in the final two sessions indicated that the teachers had gradually become more capable of viewing CM in light of the introduced notions. This finding corroborates Warford's (2011) zone of proximal teacher development (ZPTD), consisting of the stages of self-assistance, expert other assistance, internalization, and recursion, and one which points to what teachers 'can do on their own without assistance and a proximal level they might attain through strategically mediated assistance from more capable others' (p. 253). Initially, the emphasis should be on 'setting the field by promoting reflection on one's experiences and tacit beliefs with regard to teaching and learning' (p. 253) as we did in the present study by obtaining the teachers' verbalizations in the first session without any CM-related prompts. The prompts introduced to promote teacher reflection should be 'formal concepts and constructs that candidates will be exposed to in the curriculum' (p. 253) and this aspect was also realized in the present study, which mediated the teachers' cognitions developmentally and assisted with their internalization of the notions.

Two micro-level dimensions need to be added to the typology Warford (2011) proposes. The dimensions are what we call "concept extension" and "balance". Concept extension is the ability to extend mental representations developed in a learning initiative to novel relevant situations. Our data indicated that the teachers were able to extend their learning to verbalizing CM-related aspects that had not been practiced in the scaffolding sessions. For example, language management was not part of the introduced notions, yet the teachers recurrently pointed to the importance of their verbal behavior in managing the class. It

must be mentioned that concept extension is different from concept-related utterances that could otherwise occur independent of the focal point of mediation. Simply because an utterance is verbalized by the teacher does not count as concept extension. The utterance must be connected to the mediated notion systematically and internalized by the teacher, which can be examined via analyzing the frequency of occurrence, explaining whether a representation is an impromptu utterance or part of concept extension. Balance is overarching and refers to the extent to which verbalizations are featured by a consistent set of utterances marking learned notions in representing an entity. Comparative analysis of the teachers' initial and final representations showed that the teachers' final verbalizations were more consistent in terms of frequency, while their initial verbalizations were dispersed. This finding indicates that the teachers seem to have gradually developed a coherent set of benchmarks against which to interpret CM and their final representations enjoyed more balance and a steady state in representing CM.

## Conclusions

This study examined the contributions of a scaffolding initiative to novice teachers' cognitions of classroom management by investigating their own video-recorded classroom instruction. The results of the present study offer a number of implications. First, as suggested by various scholars and researchers, novice teachers need a more concerted attention from policymakers and teacher educators because commencement of the professional teaching itinerary is often associated with difficulties that require assistance from more experienced peers. As we observed, the difficulty is likely to be lessened by empowering the teachers with the *crutch* of CM. As CM embraces most of the real-time occurrences, developing awareness of it is likely to facilitate the "transition shock" (Farrell, 2016) to professionalism. In this regard, expert teachers could effectively mentor novice teachers as it appears that experts' increased pedagogical knowledge of CM enables them to heed various (real-time) considerations, while 'novices remain less assured about their classroom management knowledge and the actions they can take to improve it' (Wolff et al., 2014, p. 4).

Second, it is by now widely acknowledged that CM should be incorporated into pre-service teacher education courses. As mentioned previously, one reason for the underrepresentation of CM in such courses may be the traditional perspective of the concept as limited to disciplinary issues. However, discipline is not separate from other classroom occurrences and the whole range of classroom events operate in a dynamic, complex system contributing to classroom progression. As thus, viewing the classroom context as a complex system takes CM beyond the traditional view and situates it within an ecological perspective marked by interconnection among various components of CM influencing and being influenced by each other. Practicing CM in pre-service teacher education programs from this standpoint is both instructionally effective and conceptually productive as the teachers become familiar with its principles, conduct, and impact in more depth.

Third, earlier we noted that Gatbonton (2008) emphasizes the importance of accelerating teachers' development via artefacts that facilitate this process. This statement has been underscored in the sociocultural theory, labeled as mediation. Mediation of CM principles for novice teachers seems to be of particular significance as the wide range of issues in CM take more time to be internalized by novices. Indeed, CM should not be viewed as a post hoc undertaking developed in teachers naturally in the pass of time and pre-emptive initiative should be taken to ease this process. One possible way to do so is using what Farrell (2012) introduced as novice-service language teacher development, which 'provides novice teachers with reflective practice opportunities during their teacher preparation courses that can be continued into their first years' (p. 438), and requires a close tie between teacher educators and novices.

The present study had a number of limitations. This study was conducted with six teachers. Further research with a greater number of teachers better demonstrates the novices' developmental mental trajectory, especially if compared to experienced teachers. Additionally, delayed video-viewing of classroom instructions would provide a deeper picture of the extent to which the teachers had internalized the introduced notions in the long run. Further research may explore this aspect coupled with considering diverse social, critical, cultural, etc. perspectives to capture the nature of teacher change in a developmental manner.

# List Of Abbreviations

CM: Classroom management

TEFL: Teaching English as a Foreign Language

L2: Second language

SCT: Sociocultural theory

# Declarations

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# Tables

Table 1

*Frequency of the Teachers' CM-related Verbalizations across the Video-viewing Sessions*

|  | Discipline | Activity flow | Multiplicity of activity | Connectivity of activities | Prospective effect | Teacher role | Student learning | Time management | Total |
|---|---|---|---|---|---|---|---|---|---|
| S1 | 31 | 7 | 11 | 2 | 5 | 11 | 7 | 14 | 88 |
| S2 | 15 | 6 | 9 | 17 | 4 | 37 | 6 | 13 | 107 |
| S3 | 35 | 17 | 9 | 3 | 4 | 16 | 6 | 13 | 103 |
| S4 | 16 | 8 | 28 | 4 | 7 | 18 | 39 | 14 | 134 |
| S5 | 16 | 7 | 6 | 11 | 23 | 17 | 10 | 27 | 117 |
| S6 | 16 | 12 | 15 | 14 | 9 | 14 | 11 | 12 | 103 |
| S7 | 15 | 11 | 15 | 16 | 10 | 15 | 10 | 14 | 104 |
| Total | 144 | 68 | 93 | 67 | 62 | 128 | 89 | 105 |  |