



## EPISODIC MEMORIES AMONG FIRST AND FOURTH GRADERS EARLY CHILDHOOD UNIVERSITY STUDENT TEACHERS, CONCERNING TEACHERS' BEHAVIORS: A MIXED METHOD APPROACH

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### ABSTRACT

*The content of school year memories of University student teachers in early childhood education was explored. 183 first and fourth year student teachers were asked to recall and write a small text about one or two positive/negative episodes of their entire school life, which influenced them profoundly. A mixed method approach was used and it was found that student teachers' memories originate equivalently from their entire school life, with negative incidents dominating their memories. Older students recall more negative school life incidents and seem more sensitized to teachers' negative behaviors, their descriptions are more sophisticated, and propose more positive alternatives.*

#### **Highlights:**

- *Explores the main thematic areas of student teachers' early episodic memories from their past school years.*
- *Student teachers' episodic memories are rich and vivid and offer a valuable material for exercising in imagination new practices and methods.*
- *University training has an impact in the organization of student teachers' episodic memories*

**Keywords:** Episodic memories, Student teachers, Mixed-method approach, Teachers' memories, Teachers' education.

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### Contribution/ Originality

This study contributes in the (scarce) existing research concerning the episodic memories of student-teachers, concerning their past experiences as students. Our research, as bringing autobiographical memories material, contributes to our better understanding of student teachers' attitudes, fosters ideas in shaping effective teachers' training curricula and enables intercultural comparisons.

## 1. INTRODUCTION

Teachers' beliefs are in general a crucial parameter when asking for insightful cues in understanding their behavior. They work as a valuable source of information when we try to understand what contributes to ineffective teaching practices (Pajares, 1992) or what fuels up their willing to consider alternative beliefs (Goodman, 1988). Previous research evidence has demonstrated that preservice teachers' thinking is influenced by their past educational histories as students (Bramald *et al.*, 1995). As can be easily understood, the time an individual spends at school is not forgotten, and during adulthood people tend to recall the best (e.g. exceptional teaching situations and circumstances, good teachers, etc) and the worst memories (i.e. public humiliation, ridicule, or fear) from their school years (Heikkilä *et al.*, 2012). It is well recognized that when students enter teacher training programs in colleges or universities, they also bring their personal attitudes, views, theories and beliefs about teaching and learning. All these, which are based on their personal experiences as students, tend to be very difficult to change during their professional teacher training (Saban, 2003). Numerous researchers argue that student teachers' are resistant to change and inflexible (Kagan, 1992; Guillaume and Rodney, 1993; Nettle, 1998).

According to Nespor (1987) beliefs draw their power from various episodic memories of incidents or events. Other researchers have also noted the important role that episodic memories (or guiding images, intuitive screens) play in the formation of an individual's beliefs about teaching practice (Goodman, 1988); Calderhead and Robson (1991). Calderhead and Robson (1991) suggest that preservice teachers use their episodic memories or images as guiding schemes although they do not have the knowledge to modify or question them during teaching practice. Nisbett and Ross (1980, in Pajares (1992)) argue that early experiences are extremely influential and become beliefs, that are difficult to change. Lortie (1975, in Pajares (1992)) refers to the term "*apprenticeship of observation*" in an attempt to describe the effect that school years have on the beliefs that an individual has about teaching. According to Pajares (1992) a lot of researchers have reached to the conclusion that beliefs about teaching are completely formulated by the time a person enters university. Murphy *et al.* (2004) concluded that beliefs about good teaching are formed at an early age, and persist all through teacher preparation. Calderhead and Robson (1991) refer to the memorized images "*as models for action*". It is supported that the experiences that a teacher had during his/her school years, are part of the development of his/her professional identity (Heikkilä *et al.*, 2012). Yet, controversial aspects have been reported on whether teacher education can transform student teachers' initial ideas about teaching and learning (Murphy *et al.*, 2004), leading once more to the conclusion that these ideas and beliefs are extremely resistant to change.

Pajares (1992) supports that research on the beliefs that first year university student teachers have about teaching and learning, would give teacher educators valuable information so as to formulate an academic curriculum and program in order to re-construct problematic beliefs. In a study conducted by Joram and Gabriele (1998), it was found that taking into account preservice

teachers' prior beliefs during university courses, has a serious impact on their beliefs about teaching and learning. [Stuart and Thurlow \(2000\)](#) redesigned the Mathematics and Science Elementary Methods class at Elon College in North Carolina, USA, in order to provoke preservice teachers into exploring their beliefs about mathematics teaching. By the end of the program, the participating preservice teachers were able to comprehend and re-evaluate the effect that their beliefs about teaching and learning have on their behavior as teachers ([Stuart and Thurlow, 2000](#)).

Vuorikoski (2003, in [Heikkilä et al. \(2012\)](#)) claims that it would be very important that teacher education programs include the analysis of students' personal school memories, «*as an obligatory part of the studies*». This way, future teachers would have the ability to reflect on their own memories, assess and interpret them within the framework of their education studies. The importance for the exploration of the possible effects that the teacher's training has upon the important school years memories, has also been stressed elsewhere ([Saban, 2003](#); [He and Levin, 2008](#)). In their study, [Heikkilä et al. \(2012\)](#) investigated whether teacher students' school memories are in any way exploited in teacher education in Finland. Their main outcome was that teacher students' school memories are not analyzed as they should during their university studies in order for future teachers to reflect on them [Heikkilä et al. \(2012\)](#). Furthermore, they found that student teachers remembered their childhood teachers mostly for their personality and behavior and less for their academic profile (teaching methods and classroom management) ([Heikkilä et al., 2012](#)).

Regarding the effect of the teaching practice under-graduate student teachers do during their studies, [Karavas and Drossou \(2010\)](#) found that this teaching practice can lead to the modification of their pre-existing beliefs about teaching and learning. Furthermore, they stressed the important role that experienced mentor teachers play during the above mentioned process ([Karavas and Drossou, 2010](#)). To our knowledge, in Greece there has been no research relevant to the memories of University student-teachers. In the present study we aimed at: a) investigating the main themes that the episodic memories are organized about and b) testing of the hypothesis that memories of 4<sup>th</sup> year student would differ from those of 1<sup>st</sup> year, showing differences which could possibly be attributed to the training experience. The study was conducted by the Laboratory of Theoretical and Applied Pedagogy of the Department of Early Childhood Education at the University of Thessaly in Greece during 2013 and was funded by the Research Committee of the University of Thessaly.

## 2. METHOD

### 2.1. Participants

One hundred eighty three (183) early childhood university student teachers participated in the research, of who 97 were 1<sup>st</sup> year early beginners and 86 were 4<sup>th</sup> year pre-graduates. One hundred eighty two (182) were women. The participants were actually and the academically active population of 1<sup>st</sup> and 4<sup>th</sup> year students during the academic period 2012-2013. Students of

1<sup>st</sup> year were mainly 18 (N=72) and 19 (N=14) years old and only 6 of them had age equal or older than 20 years old. On the other hand, 4<sup>th</sup> year students were aged 20 (N=3) and 21 (N=75). Eleven (11) students were older than 23 years.

In the qualitative extraction of codes the total number of participants was used, whereas the  $\chi^2$  analyses were performed on the answers of the following groups: ages 18-19 (47.3%), 20-21 (44%). The remaining 8.7% (22 cases equal or over 22 years old) were excluded, in order to facilitate homogeneity between 1<sup>st</sup> and 4<sup>th</sup> graders.

## 2.2. Data Collection and Analysis

The students were asked to recall their experiences and freely write a small but detailed text about one or two positive or negative episodes of their entire school life, which they felt that influenced them in a significant degree. In order to help the students we provided them with general suggestive guidelines such as; a) how the incident affected them, b) how do they evaluate it through the scope of nowadays perspective, c) what would they have done in teachers' position, d) where and when the incident happened and e) write whatever else considered of importance.

Concerning the educational level that the memories belonged to, student teachers recalled incidents from their entire school life, covering from early preschool education to the later upper high school. Table 1 presents this data accordingly. The distributions of Elementary and Elementary A & B do not overlap, since in some cases the specific level of elementary that the incident took place was apparent, and in other cases was general commended as "in elementary". It's interesting that the contribution of memories across didn't vary significantly, and preschool memories were almost as equal as secondary and upper high school.

**Table-1.** Frequency of the recalled incidents within educational level

Education level	N (%)
Preschool (age 4-6)	31 (16.9%)
Elementary (age 7-11)	15 (8.2%)
Elementary A (age 7-9)	27 (14.8%)
Elementary B (age 10-12)	33 (18%)
Secondary (age 12-15)	30 (16.4%)
Upper High School (age 16-18)	35 (19.1%)
Not reported the educational level	12 (6.6%)

A mixed method research approach was used since our research was based upon quantitative and qualitative data, as we assumed that collecting diverse types of data would provide a better understanding of our research problem (Creswell, 2003). For the qualitative aspects, we used the phenomenological approach as one of the five approaches to qualitative research (Creswell, 2007) added at the end since the experiences of the participants were central in exploring and understanding their subjective world. The quantitative aspects were evident in our formed hypothesis that teachers' perceptions would differ among first and last grade preschool teachers, and for that reason, we needed a substantial number of participants. Differences between men and

women were not assumed, since that hypothesis cannot be statistically tested as men usually do not choose to follow studies of early childhood education. In our research the answers of the man were equally treated as the answers of the rest of the participants.

The coding of the answers was performed in an In Vivo data base and the  $\chi^2$  analysis was performed in an SPSS data base.

Thematic Analysis was used in our qualitative approach, since our intention was to describe and organize the simplest way the answers of students. The steps followed (as suggested by [Braun and Clarke \(2008\)](#)) were: a) familiarization with the data, b) generation of the initial codes, c) searching for themes, definition and naming of the themes, and d) writing the report.

More specifically, the 2<sup>nd</sup> and 3<sup>rd</sup> researcher, a PhD psychologist and a PhD preschool educator respectively, familiarized themselves reading the data. Then they split the answer documents in half, and worked individually on coding. Afterwards, they worked back together again so as to share the ideas about the coding procedure. From a vast amount of codes, it became apparent that these could be organized under the following themes: 1. Type of teacher behavior, 2. Behavior evaluation, 3. Proposed alternative behaviors, 4. Today's emotional impact, 5. Social Context type of memory

The two researchers organized the data upon agreement on the 5 basic thematic areas. Then the 4<sup>th</sup> researcher was invited, an Msc student in early childhood education, and was asked to freely code the memories in the InVivo data base, within the context of the five thematic areas. The completed questionnaires were carefully rewritten in an excel base. Then the excel base was retrieved in an InVivo environment.

Soon after this procedure was over, the three researchers worked collaboratively, so as to reach agreement upon the final codes that would be entered in the further analysis. They came up with a total agreement on 67 final codes.

### **3. RESULTS AND INTERPRETATIONS**

#### **3.1. Teachers' Behaviors Coding**

Of the 183 student teachers, 151 reported incidents relevant to teachers' behaviors, whereas the other 32 reported irrelevant incidents, such as excursions, or school celebrations where no teacher's specific behavior was involved. The total number of 213 recalled incidents were coded in 22 codes, which we tried to further organize in fewer codes as follows: I) non pedagogical punishment, II) punishment (non corporally), III) positive intervention, IV) other, V) punishment within educational setting, and VI) indifference / absence. The coding was made according to the description of teacher's behavior per se (at least as far as it was possible) although the behavior's implications and the attributed motives could have been further coded.

Overall, students' memories are characterized by vividness in descriptions, quite detailed in image description. Negative memories prevailed in students' recalled incidents, a finding that can be explained by recent research findings, where vividness and specificity are more consistently predicted by emotional intensity of the events rather than their valence ([Talarico et al., 2004](#)). So,

a possible explanation could be why negative incidents are more emotional intense and that is the reason why they are more easily recalled. In addition, our participants are very young in age ( $M=20$  years old) and according to research older adults rate the autobiographical events as containing more positive feelings and as being less complex than the younger ones (Comblain *et al.*, 2005). *Non pedagogical punishment* includes a broad spectrum of behaviors pedagogically unacceptable high in occurrence. Unfortunately these behaviors prevail in students memories (80 cases, 82 references). In that category we included behaviors of physical (29 cases) and verbal violence (30 cases). These recalled incidents entail behaviors which are serious indications of mal practice – although the last code ironic comments seem less serious. These are behaviors of used force (c. 110 “*as we were late for school our teacher put us in front of the board and slapped us so strongly that I still remember it*”), of public exhibition (c.115 “*he started yelling at me in front of the whole classroom making me feel very badly*”), behaviors of verbal attack which is different from shouting or swearing because it’s mentioned as verbal attack by students and it also includes incidents of direct personal assault to student (c.136 “*the geometry teacher verbally insulted me accompanying his words with insulting gestures*”), swearing and insulting (c.167 “*we were making so much noise that the teacher insulted us*”) and ironic comments (irony can be expressed with words or facial expressions (c.117 “*she gave me an ironic look*”).

It is well recognized that physical violence towards students is considered per se a mal practice. Even so, such incidents seem to take place even nowadays. The corporal punishment and the verbal abuse in pre-service teacher is found eminent in other studies (Ozcan and Sarici – Bulut, 2012). In a similar study Saban (2003) has also found that corporal punishment is existent in the lives of elementary school students in Turkey.

*Non corporal punishment* (42 references) includes teacher’s behaviors who brought an unpleasant emotional effect on students and are not included in the codes of *punishment within educational setting* category. These codes contain behaviors where the emotional expression of teacher is stronger as in case of shouting and scolding (c.106 “*The teacher was so angry that he started shouting like crazy*”) and behaviors where punishment was demanded in an angry and high voice but non corporal punishment was included (c.144 “*his reaction was to punish us by asking us to write 100 times the phrase: when the bell rings I enter my classroom*”).

*Positive intervention* is the only thematic area of positive emotional effects as it includes teachers’ behaviors which helped the student. This code includes a wide spectrum of behaviors such as use of innovative pedagogical methods (c. 38 “*With this teacher we had seminars, tests but we also visited museums, universities or even working places*”), emotional support (c. 94 “*The teacher realized the problem and kept making efforts to help me catch-up*”) reward (c. 106 “*Our teacher had assigned us a homework and the students who deliver and organize it better would gain a small prize*”), behaviors indicated that emphasis was placed upon child’s uniqueness (c. 72 “*a child came with his mother to enroll in kindergarten and he made impression of being black like his mother. Our teacher welcomed him heartily*”) and behaviors of discussion with the student (c. 74 “*After that she (note: the teacher) talked to her about the bad behavior and the little girl seemed to understand what she did*”).

*Punishment within educational setting* (23 references), includes punishment interchangeably connected with its classroom context. These are class expulsion where student is expelled from the class (c.50 “*the teacher expelled for an hour not only once but constantly because I was making a little noise*”), discourage, which is more the lack of support of the teacher which gave the student the impression that is not capable of do it (c. 100 “*I found myself in a very difficult position because I didn’t know the answer. It seemed like ages. The preschool teacher was making faces saying: “come on, it’s easy” expressing facially resentment*”), threatening, such as not letting a pleasant action to take place (such as break) (c. 122 “*When I insisted that I wanted to try more in order to get the role play, she said that if it is that everybody does his own way, we better leave it and not do the theatrical play at all*”) and workload assignment (c. 177 “*She assigned us a lot of homework for holidays (Christmas, Easter) and weekends*”).

As codes of *indifference/absence* (20 cases, 20 references) were classified behaviors were the teacher presented indifference to bullying (c.154. “*my classmates used to make fun of me which made me very awkward and the teacher did nothing about that*). Teachers’ indifferent behavior towards possible bullying can only be assumed as such since there is evidence that teachers are unaware of distinguishing bullying behaviors from the normal children relational behaviors (Boulton, 1997).

The other code is general indifference which entails an indifferent behavior towards student as a whole, emotionally or educationally (c. 61. “*I fell down and I hit my knee which was fully bleeding. The teacher told me to sit on the pavement and he kept on the gymnastics lesson with the rest of the students*”). Left classroom is another code for teachers who left the classroom unable to do anything else than that. An emotional outburst may take place, but the teacher did nothing more (c.119 “*the teacher burst into tears and never entered our class again*”).

Under the code *other*, were classified behaviors which couldn’t be classified under a cluster of codes, such as the code discrimination where a clear distinction is being made between the students and the others with a positive valence (c. 113 “*the teacher chose me to hold the big national flag of the kindergarten, (...) as I was the tallest and strongest among my classmates*”), or negative (c. 126 “*I was one of the non-liked by teacher student and there for I did nothing (mean: engaging in activities) though I wanted so much*”). This may be referred to something “positive” such as student’s excellence, or negative, such as teacher’s favoring students of certain social background. But in both cases the common characteristic is the students’ feelings of uneasiness. So, discrimination is a code of negative valence. Another code is acted extinguishing where the teacher acted immediately and on time in order to avoid a further exacerbation of the situation, a short of crisis intervention (c.9 “*As time was passing by, our fight became more and more fierce. The teacher intervened and peace was restored*”), and examination, which represents experience of typical school examination, but in a way that it may lead to a negative school attitude (c. 94 “*Our math teacher used to rise us in front of the blackboard using his personal organizer and then he used to write down on our notebook whether we had done our homework or not or he asked for our parents to sign it up*”).

Table 2 presents the 22 codes of teachers’ behaviors and their organization in broader categories.



Table-2. Teachers' behaviors coding

	e.g.	Sources	References
Teachers' Behaviors		151	213
Non-Pedagogical Punishment		80	82
Used force	c. 16 "Back to the 6 <sup>th</sup> grade, I remember I stopped to pick up a piece of paper, which a child had thrown on the floor. At that moment the teacher approached and slapped me. It was unfair because I hadn't done anything wrong."	29	29
Exhibited publicly	c. 161 "One day the teacher examined me on my homework and I didn't know what to say, because I hadn't done it. The teacher humiliated me in front of the whole class, yelled at me and forced me to say something, since she realized I knew nothing! It was one of the most uncomfortable moments of my life."	19	19
Verbally attacked	c.40 "Our teacher was very strict. One day my friend asked me to help her with a test we were writing so I showed her my paper sheet and whispered some of the answers. When the teacher realized that I was helping my classmate, he attacked me verbally. He said hurtful things that I still remember. Namely he said in front of the entire class that he never expected something like that from me and I disappointed him. He also mentioned that since my father was a teacher, I should behave more appropriately."	8	8
Swore - insulted	c.167 "A teacher at the 9 <sup>th</sup> grade was mocking all the students regardless of what they would say or do. He swore, talked disrespectfully about our families without even knowing them."	2	2
Ironic comments	c.117 "At the 5 <sup>th</sup> grade there was a teacher who gave me an 8 on a test, because I forgot to write a line. I asked her the reason why and she started yelling at me and saying ironically "Why? Does an 8 bother you?"	1	2
Punishment (Non-Corporal)		42	42
Shouted, scolded	c.46 "At the 5 <sup>th</sup> grade my teacher was planning a short exploration at the new school which was being constructed nearby with a small group of students. He was very rigorous and he asked us to remain quiet until he would return. But the very moment he closed the door I fell off from my chair and the whole class laughed at me. The teacher was shouting at me a lot without a reason. His voice was heard everywhere so I started crying."	32	32
Punished	c.31 "Our junior high school had been freshly painted the day before. The boys of the class were running back and forth. A boy was holding a bottle of milk...which unfortunately he threw on the freshly painted wall. When the principal saw it...punished the whole class by making them sweep the entire yard and repaint the wall. Everyone obeyed to his request."	10	10
Positive Intervention		37	37



Used innovative pedagogical methods	c. 137 “The teacher of Ancient Greek class, at the 9 <sup>th</sup> grade, used to teach us by organizing the desks in a circle, aiming to develop cooperation between her students. I remember that there were no right or wrong answers. She also tried to elicit the relative information from us than lecture at the class. Personally I started feeling more confident, participating and studying more in order to make my teacher proud of me.”	14	14
Emotionally supported	c. 172 “I expressed to my teacher, George, my fear and repulsion about doves. At the end of the year there was a school event about Olympic Games when he assigned me the role of the speaker. Thus, I would present the whole event. When the event came to an end he gave me a box, I opened it and I found a dove. He urged me to catch it and let it free. Eventually I did it because everyone was staring at me. From that day on I overcame over my fear.”	10	10
Rewarded	c. 4 “At a school event in the 9 <sup>th</sup> grade, I was honored by the school for my athletic achievements when representing the school in many competitions. I had also been to Crete for the national league. At that school event, my teachers projected some photos from my athletic events and they mentioned my achievements. They offered me an award too. It was a way to thank me for my efforts. I felt really nice when my classmates applauded for me.”	4	4
Placed emphasis upon child's uniqueness	c. 145 “At the 4 <sup>th</sup> grade, I failed a test in mathematics, and so I expected that it would impact my semester grades. Nevertheless the teacher didn't lower my grades since he knew I was in a higher level in mathematics than the rest of the class. His reaction gave me the chance to get better and better.”	3	3
Discussion with the student	c. 9 “During a class at the 3 <sup>rd</sup> grade, two girls were fighting, because the one of them talked disrespectfully about the other's parents who had just divorced. As the time went on the fight became more and more intense. Then the teacher intervened and they stopped. However, the teacher discussed with the two girls during break and solved the misunderstanding.”	2	2
Punishment Within Educational Setting		23	23
Class expulsion	c.36 “I strongly remember my bad attitude towards my teacher at the 8 <sup>th</sup> grade...I made the most noise during the class. I chatted with my classmates, threw paper shuttles, made paper boats... when suddenly I heard the teacher saying “Get out of the classroom and go to the principal's office”.	9	9
Discouraged	c. 171 “One day during my Kindergarten class, my classmates and me were all gathered to make some crafts with a Christmas theme. Meanwhile the teacher put some music on. Since I knew those songs, I was singing but at a higher tone. The teacher was annoyed and told me that I should stop because I had been	8	8

	making a lot of noise and my voice was not nice.”		
Threaten	c. 143 “Every time I or someone else made a noise, the Kindergarten teacher threatened him/her using phrases such as “If you do this again, you won’t be allowed to go outside at the break” or “If you continue doing these things, I won’t allow you play with the other kids”. As a consequence, we were feeling fear emotions.”	5	5
Assigned workload	c.177 “At the elementary school, particularly from 2 <sup>nd</sup> to 4 <sup>th</sup> grade, we used to have a teacher who besides being good was also very strict. She assigned us a lot of homework for holidays (Christmas, Easter) and weekends that needed so much time to be finished that our free time was quite limited.”	1	1
Indifference / Absence		20	20
Indifference to bullying	c.6. “At 9 <sup>th</sup> grade, my “friends” had been bullying me. One day during the Biology class... they insulted me by laughing at my appearance and mocking my taste to boys. The teacher ignored them as if nothing ever happened.”	13	13
Indifference	c.26 “Back to my Kindergarten class, I went out to the kindergarten yard during a break, when some of my classmates who were wrestling for fun, pushed me so hard that I fell on the ground... My face was injured really bad, specifically my upper lip, and I was bleeding incessantly. Nevertheless, the kindergarten teacher didn’t bother at all and continued polishing her nails, since she had not seen the incident. She never bothered watching us out. After the incident, I ran to the toilets to clean the blood with some water by myself.”	5	5
Left classroom	c.102 “The teacher was never able to have control over the class and as a result instruction was always hindered. Once... we created such a mess that she insulted us, started crying, threw the books on the floor, and left the classroom to visit the principal’s office. The next day we were told that she was refusing to teach us again...”	2	2
Other		34	34
Discriminated	c. 97 “During the 11 <sup>th</sup> grade a new teacher came to our school to teach Sociology. From the first time she met us she showed more interest to some students than others. One of them was me too. When she saw me she asked my name and said with enthusiasm: “What a cute little girl!” <b>(positive)</b> c. 104 “The school I was attending used to be at a small district, so many teachers knew the students’ parents. In my friend’s and my case, the teacher didn’t know us because we were from another village. I cannot report only one incident but the total attitude of the teacher who benefited the students that knew their parents, by being sometimes too kind with them. He used to chat with those students in the classroom ignoring us, being ironic and trying	21	22

	to find causes to scold us.” (negative)		
Acted extinguishing	c. 37 “After the gymnastics class... I fainted....The teacher acted really quickly and efficiently, as he called staff of the school to help me.”	9	9
Examination	c. 142 “The teacher of the history class at junior high school used to examine us by calling our names alphabetically and keeping notes during the examination. Every time she was calling my name I sweated and felt my breath taken away even if I had prepared for it adequately the day before.”	4	4

As described in the method section, the coding procedure followed an SPSS data entering coding so as to perform the  $\chi^2$  analysis to test our hypotheses about individual or contextual differences. Concerning the area of the remembered incident taken place, no differences were found among rural, urban or suburban places. Yet, there were stronger differences between 1<sup>st</sup> and 4<sup>th</sup> year of study students.

According to  $\chi^2$  analysis, 4<sup>th</sup> graders expressed more memories with teachers showing indifference to bullying ( $\chi^2=6.37$ ,  $p<.05$ ), student’s public exhibition ( $\chi^2=5.07$ ,  $p<.05$ ), use of physical force ( $\chi^2=6.30$ ,  $p<.01$ ) and behaviors of discrimination ( $\chi^2=4.30$ ,  $p<.05$ ). It’s evident that negative memories especially those which bearing sentiments of embarrassment are more prevailing in 4<sup>th</sup> graders. This could be attributed to maturing as well as to the effects of training experience. For example raised awareness on bullying issues could be attributed to the special emphasis that is given to this phenomenon during the university studies.

### 3.2. Teacher’s Behavior Evaluation

Codes concerning the evaluation of teachers’ behaviors were found in 84 students (90 references) as the rest of them didn’t proceed with any evaluation and characterization of teacher’s behavior. According to the coding procedure 5 codes emerged: Behaviors were generally characterized as a) anti-pedagogical, b) unacceptable, c) justified, d) wrong attitude and e) right attitude, as presented in Table 3. Unacceptable is the most common use code (27 references) that is used to evaluate behavior along with the evaluation as wrong attitude (24 ref.). Anti-pedagogical (17 ref.) is another word that was used as a code. As can be seen the majority of the attributions belong to a negative evaluation and this seems logical since the majority of the recalled incidents are negative. It is worth mention, though, that students make general, overall comments of the behavior and do not emphasize on certain deficiencies or aspects of teachers’ behaviors (such as teachers’ lacking certain skill). On the other hand there were positive evaluations (fewer though)

Table-3. Teachers' Behaviors Evaluation Coding

	eg.	Sources	References
Behavior Evaluation		84	90
Unacceptable	c. 118 "...In my opinion the kindergarten teacher's behavior was unacceptable as she tried to attract a child's attention by using violence..."	26	27
Wrong attitude	c.113 "...The teacher was wrong. She should have done a lottery..."	24	24
Anti-pedagogical	c. 146 "...Today, after having attended a cycle of pedagogical studies, I judge her way (teacher's) ineffective and anti-pedagogical. I believe it is unacceptable to classify students just by using numbers in the teacher's assessment booklet. I disapprove such an action..."	17	17
Right attitude	c. 139 "Moreover, concerning the teacher's behavior, I think that her management of the situation was very good and discreet..."	16	16
Justified	c. 102 "...As a future teacher I can understand how my teacher felt and how she should react to somehow change the conditions in the class..."	5	6

of teachers' behaviors, such as right attitude (16 ref.) and justified (ref. 6). Yet, it remains open to further research the overall reluctance of students to evaluate their teachers past behaviors.

Subsequently, we performed a  $\chi^2$  analysis to test our hypotheses about differences among young and older students in the frequency of codes. The older students....The older students seem to make systematically more negative evaluations especially in the codes of unacceptable ( $\chi^2=4.85$ ,  $p<.05$ ) and wrong attitude ( $\chi^2=3.07$ ,  $p<.05$ ). This is not a case of ageing effect, since a) the age difference among groups is minimum and b) ageing is generally positively correlated to memories recalled of positive valence, as shown by [Comblain et al. \(2005\)](#). So, these differences could be attributed to the training experience.

In the  $\chi^2$  analysis concerning the area (of where the incidents took place), it's noticeable that the behaviors taken place in rural area seem to be evaluated more positively than those of urban or suburban places, as in the codes of right attitude ( $\chi^2=7.95$ ,  $p<.05$ ) and justified, ( $\chi^2=9.99$ ,  $p<.01$ ). This could be attributed to more patriarchic structure that is evident in agricultural societies and children are encouraged more to conformity.

### 3.3. Suggestive Alternative Behaviors

In the recalled memories students were asked to propose possible alternative teacher's behaviors in their recalled memory. The majority of the students provided ideas about what would they do in teacher's position. In that coding theme / broader category that could be summarized in the phrase "in teacher's position I would...", were classified the answers of 119 students and a total 162 references (as some students provide more than one incident) and 14 codes emerged (see Table 8).

Table-4. Suggested Teachers' Alternative Behaviors Coding

	eg.	Sources	References
In teacher's position... I would...		119	162
Avoidance of negative behaviour	c.1 "... If I were the teacher, I would have tried to avoid bawling about a relatively unimportant incident, especially to a child who has never acted in this way before."	42	43
Replicate behavior	c.37 "...I would have reacted the exact same way, as it was the most effective..."	25	26
Less strictness	c. 177 "...As alumni if I was that teacher, I would have given more free time to my students and assign them less homework. I would have not pushed them so hard and I would not have been so strict..."	18	18
Discussion	c. 128 "...I would have discussed with him to understand if it was really his fault and then make him realize his mistake by himself..."	18	18
Support	c. 106 "...he could have helped me initially by encouraging me and then by helping me pronounce my poem. He could have supported me. At least this is what I would have done..."	14	14
Explanation	c. 143 "... As a future teacher, I would explain to my students the right and the wrong thing to do, their faults and what they should do..."	12	12
Challenging learning	c. 100 "...I would like my students to come into contact with mathematics through playful activities in order to make them love and not be afraid of them..."	8	9
Cooperation with the parents	c. 138 "...In addition, I would have contacted the parents to see if any similar incidents were happening at home or help them advise their children..."	7	7
Better teaching organization	c. 97 "...I would have planned activities which give the sense that anyone can participate and every single child has the same chances..."	5	5
Establishing close relationship with the child	c. 123 "... if I were my kindergarten teacher, I would have tried to be closer with my students and try to find out if someone had any problem and thus help him/her..."	4	4
Punishment avoidance	c.13 "... I would never punish the student or at least it would not have been my first choice..."	2	2
Appeal to the director	c. 182 "... I would have asked from the school director to manage the situation..."	2	2
Put emphasis on child's uniqueness	c. 127 "... if I were the teacher, I would have been very careful before I categorized any student of mine and if I eventually did so, I would care for his/her individual feelings..."	1	1
Training	c. 95 "...if I worked in a school with an inclusive class, I would have attended extra training classes in order to be able to manage appropriately such situations..."	1	1

Avoidance of negative behavior was the most prevailing theme in suggested teacher's behavior (sources 42, references 43). A significant number of students (sources 25) would replicate behavior, would express less strictness (s. 18) and discuss (s. 18) with the student. Other codes that emerge are support (s. 14), explanation (s. 12), challenging learning (s. 8), cooperation with parents (s. 7), better teaching organization (s. 5). The last one was establishing close relationship with the child (s. 4) put emphasis on child's uniqueness (s.1) or extra training (s.1).

The differences among 1<sup>st</sup> and 4<sup>th</sup> year students were further tested using the  $\chi^2$  analysis. The older students ...The older students seem to declare to a higher frequency that would avoid the negative behavior ( $\chi^2=4.36$ ,  $p<.05$ ) and to a lower degree that would replicate behavior ( $\chi^2=3.09$ ,  $p<.05$ ). Only the older students establish a close relationship with the child better ( $\chi^2=4.37$ ,  $p<.05$ ) or propose a better teaching organization ( $\chi^2=5.23$ ,  $p<.05$ ). It also seems that although no other statistical significant differences were emerged in the other codes, older students propose alternatively more specific strategies and also have a more positive approach towards child in their proposed alternative. A similar finding was [Murphy et al. \(2004\)](#) study, as the teachers' believes progressed in sophistication from the second graders to pre-service and to the in-service teachers. Concerning the area (urban suburban, rural) no differences were found in the frequency of codes.

### 3.4. Emotional Impact of the Incidence

Answers referring to a possible emotional impact of the recalled incident were reported in 48 cases (52 references) in students' writings. This is translated as about one third of the reported incidents seem to have an emotional impact over student teachers Negative impact on personality development was in the reported as often as the positive effect in 14 cases each. Many answers were coded as sadness, as got over it, activity avoidance and feelings of injustice which imply a prevailing negative emotional impact in most students answer. Emotions of pride of oneself were reported in only 2 cases. As can be seen in Table 5 the majority of the codes indicate a negative impact of the incident.

Table-5. Emotional impact of the incidence coding

	eg.	Sources	References
Emotional impact		48	52
Negative impact on personality development	c. 178 "...This incident affected me deeply and caused me feelings of low self-esteem. I could never eat in front of my classmates again and I always felt bad about my body. Even nowadays I feel bad if I gain weight."	14	14
Positive effect	c. 139 "...This incident affected me in a way that I am now more aware of children that are marginalized..."	14	14
Sadness	c. 114 "... I still feel, exactly as I felt back then, sadness and repulsion for that teacher..."	8	8
Got over it	c. 84 "...it overburdened me with complicated sentiments which of course I have got over it now..."	7	7
Activity avoidance	c. 171 "...I stopped singing and I rarely ever participated. I avoid attending music classes until now, as I think that I am not doing it right..."	4	4
Feelings of injustice	c. 109 "...It was not only me but the rest of the students who were feeling a sense of injustice..."	3	3
Pride of oneself	c. 76 "... since then I have never been afraid of doctors and hospitals again, not even once!"	2	2

Activity avoidance was only reported by older students probably as a result of psychological traumatizing because of the incident ( $\chi^2=4.37$ ,  $p<.05$ ).

Concerning the area of the remembered incident taken place, no differences were found among rural, urban or suburban places with the exception of feelings of pride of oneself which was dominating in students who recalled incidents from rural areas ( $\chi^2=5.11$ ,  $p<.05$ ).

### 3.5. Social Context of the Memory

The last codes represent the social context of the incidents, if it was a personal, collective or other's experience. As can see in Table 6 the vast majority of incidents (2/3 of the total number) originates from personal experience, where other's experience and collective have almost the same frequency. Table 6 presents the three codes of the type of memory. No significant statistical differences were found between 1st and 4th year students. The area also (urban, suburban, rural) was not connected to the type of the experience.

Table-6. Social context of the incidence coding

	eg.	Sources	References
Type of the memory		156	174
Personal experience	c. 140 "I was always a diligent student. One day I did not do my homework because I did not have much time. My teacher asked me very strictly "Why didn't you study? ". His tone of voice made me feel that I know nothing."	94	101
Other's experience	c. 147 "At the history class, the teacher pulled the ear of a classmate of mine and shouted at him, because the student could not concentrate and interrupted the teacher's instruction all the time."	35	35
Collective experience	c. 182 "...A classmate of mine did a mischief during the crafts class. The teacher blackmailed the whole class to expel us if we did not tell who did the mischief."	34	38

## 4. DISCUSSION AND CONCLUSIONS

It is well recognized that an individual's school year memories formulate his/her beliefs about teaching and learning, which are resistant to change (Pajares, 1992; Saban, 2003). The preservice-teachers' episodic memories are important in the research literature of teachers' education and training (Balli, 2011). The aim of the study presented here was to investigate the school year memories that first and fourth year student teachers have, along with the differences between them.

According to our results memories of negative valence and vividness are the most prevailing among the recalled incidents by students. Their descriptions are quite detailed, as expected, because of their emotional intensity. Students are also very young in age, which may be another reason for their detailed description of the incidents.

Memories of punishments, far away from what it could be considered pedagogically acceptable, dominate the memories. In the dawn of the 21<sup>st</sup> century it is dispiriting to realize that there are still teachers who use physical violence against their students, which is considered per



se, a mal practice. Similar results were also found in other studies too (Saban, 2003; Ozcan and Sarici – Bulut, 2012).

As the memories mainly originate from negative incidents, it is expected that most students hold a negative attitude towards the teacher's recalled behavior. It's interesting though, that students who recalled their memories from rural areas, tend to justify more the teacher' behavior, a finding that could be attributed to the fact that the teaching profession is still highly esteemed in rural areas.

Concerning the proposed alternatives, 4th graders tend to propose more systematically alternative behaviors that are theory driven and more positive such as establishing close relationship with the child, better teaching organization, etc. showing that the training during their studies could have a profound impact in the re-organization of their thinking as evident in the appraisal of past events.

Although, our results were based upon comparisons between 1<sup>st</sup> and 4<sup>th</sup> year, it seems that after all training does make a difference at least at 2 points: a) making teachers more sensitive to negative teachers' behaviors, b) opening up more options in positive intervening and shaping students' behaviors, a finding similar to other researches (Skipper and Quantz, 1987; Alexander *et al.*, 1996).

Finally the emotional impact is recognized in the ¼ of the recalled incidents, as in some cases students claim that the negative impact is evident even today, and that is proof evidence of the dramatic consequences of certain teachers' behaviors upon a limited number of students.

One of the limitations of our research, is that we cannot clarify if the recalled memories are truly connected upon their degree of impact, or it is their emotional intense which makes them more easily recalled. Another limitation is that we have women's mainly perspective in the recalled memories, which makes it impossible to make inductively overall estimations about the population of students' teachers.

Our final conclusion is that students' memories is a valuable pumping source of material to be used in their training to become teachers. This material can offer insights into understanding their non-helpful attitudes and teachers' possible resistance to change them – despite their University training. Those memories can be used a material to be re-organized in their training curriculum, by taken into consideration during their academic training, as already proposed by various researchers (Pajares, 1992; Joram and Gabriele, 1998; Stuart and Thurlow, 2000).

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## REFERENCES

Alexander, P.A., P.K. Murphy and B.S. Woods, 1996. Of squalls and fathoms: Navigating the seas of educational innovation. *Educational Researcher*, 25(3): 31-36.

- Balli, S.J., 2011. Pre-service teachers' episodic memories of classroom management. *Teaching and Teacher Education, 27(2): 245-251.*
- Boulton, M.J., 1997. Teachers' views on bullying: Definitions, attitudes and ability to cope. *British Journal of Educational Psychology, 67(2): 223-233.*
- Bramald, R., F. Hardman and D. Leat, 1995. Initial teacher trainees and their views of teaching and learning. *Teaching and Teacher Education, 11(1): 23-31.*
- Braun, V. and V. Clarke, 2008. Using thematic analysis in psychology. *Qualitative Research in Psychology, 3(2): 77-101.*
- Calderhead, J. and M. Robson, 1991. Images of teaching: Student teachers' early conceptions of classroom practice. *Teaching and Teacher Education, 7(1): 1-8.*
- Comblain, C., A. D'Argembeau and M. Van Der Linden, 2005. Phenomenal characteristics of autobiographical memories for emotional and neutral events in older and younger adults. *Experimental Aging Research: An International Journal Devoted to the Scientific Study of the Aging Process, 31(2): 173-189.*
- Creswell, J.W., 2003. *Research design: Qualitative, quantitative, and mixed methods approaches. 2nd Edn., California: Sage Publications.*
- Creswell, J.W., 2007. *Qualitative inquiry and research design: Choosing among five approaches. 2nd Edn., Thousand Oaks, CA: Sage.*
- Goodman, J., 1988. Constructing a practical philosophy of teaching: A study of preservice teachers' professional perspectives. *Teaching & Teacher Education, 4(2): 121-137.*
- Guillaume, A.M. and G.L. Rudney, 1993. Student teachers' growth towards independence: An analysis of their changing concerns. *Teaching and Teacher Education, 9(1): 65-80.*
- He, Y. and B. Levin, 2008. Match or mismatch? How congruent are the beliefs of teacher candidates, cooperating teachers, and university-based teacher educators? *Teacher Education Quarterly, 35(4): 37-55.*
- Heikkilä, V., S. Uusiautti and K. Määttä, 2012. Teacher students' school memories as a part of the development of their professional identity. *Journal of Studies in Education, 2(2): 215-229.*
- Joram, E. and A. Gabriele, 1998. Preservice teachers' prior beliefs: Transforming obstacles into opportunities. *Teaching and Teacher Education, 14(2): 175-191.*
- Kagan, D.M., 1992. Implications of research on teacher belief. *Educational Psychologist, 27(1): 65-90.*
- Karavas, E. and M. Drossou, 2010. How amenable are student teacher beliefs to change? A study of EFL student teacher beliefs before and after teaching practice. In A. Psaltou-Joycey & M. Matheoudakis (Eds.), *Advances in research on language acquisition and teaching: Selected papers. Thessaloniki: Greek Applied Linguistic Association. pp: 261-276.*
- Murphy, P., L. Delli and M. Edwards, 2004. The good teacher and good teaching: Comparing beliefs of second-grade students, preservice teachers, and inservice teachers. *The Journal of Experimental Education, 72(2): 69-92.*
- Nespor, J., 1987. The role of beliefs in the practice of teaching. *Journal of Curriculum Studies, 19: 317-328.*

- Nettle, E.B., 1998. Stability and change in the beliefs of student teachers during practice teaching. *Teaching and Teacher Education*, 14(2): 193-204.
- Ozcan, N. and S. Sarici – Bulut, 2012. Teacher candidates' memories on teaching and education. Oral Presentation in the 15th International Conference, Educational Reform in the 21st Century in the Balkan Countries, Bucharest, Romania.
- Pajares, M.F., 1992. Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3): 307-333.
- Saban, A., 2003. A Turkish profile of prospective elementary school teachers and their views of teaching. *Teaching and Teacher Education*, 19(8): 829-846.
- Skipper, C. and R. Quantz, 1987. Changes in educational attitudes of education and arts and science students during four years of college. *Journal of Teacher Education*, 38(3): 39-44.
- Stuart, C. and D. Thurlow, 2000. Making it their own: Preservice teachers' experiences, beliefs and classroom practices. *Journal of Teacher Education*, 51(2): 113-121.
- Talarico, J.M., K.S. LaBar and D. Rubin, 2004. Emotional intensity predicts autobiographical memory experience. *Memory & Cognition*, 32(7): 1118-1132.

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