

# The Profiles of Teacher's Classroom Management Styles in Terms of Reward and Praise: A Latent Profile Analysis

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Classroom management is one of the key elements that influence the quality of education in the classroom. However, most teachers view classroom management as an important challenge. School leaders aim to solve this problem through professional development activities. To address this challenge, teachers use different classroom management tools, two of which are reward and praise. However, there are different views about the effectiveness of reward and praise. While the behavioral school views them as positive classroom management tools, Self-Determination Theory argues that reward and praise are the tools of a controlling teaching style. It suggests that an autonomy-enhancing teaching style, such as establishing warm relationship with students, is a better classroom management tool. The aim of this study is to explore different profiles of teachers in terms of their classroom management styles, especially in terms of how teachers use reward and praise as well as punishment and warm relationship by using Latent Profile Analysis (LPA). The data were collected from a sample of 579 teachers. Teachers completed four scales (The Reward Scale, The Praise Scale, The Emotional Punishment Scale and The Warmth Scale). Teachers were profiled, based on their use of these four classroom management tools. As a result of LPA, five profiles of teachers in terms of classroom management styles emerged. They were named as "Disengaged Teachers", "Cold Punishers", "Cold Extrinsic Motivators", "Warm Extrinsic Motivators", and "Warm Intrinsic Motivators." Analysis has shown that Warm Intrinsic Motivators who do not use reward, praise or emotional punishment but warm relationships are the best in classroom management. Warm Extrinsic Motivators, who use reward and praise, were also good at classroom management since they were warm towards their students. However, they were using emotional punishment. These findings suggest that teachers who use reward also use emotional punishment. Teachers do not have to use reward, praise or punishment to manage their classes effectively. Teachers could manage their classroom perfectly well by forming warm relationships with their students. It is essential for school leaders to incorporate relationship-building as an important classroom management tool into professional development activities for teachers.

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**Keywords:** Classroom management, reward, praise, school leadership, latent profile analysis

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## INTRODUCTION

Classroom management skill is one of the most important skills a teacher needs to possess since classroom management skills are essential for the quality of education (Akgün et al., 2011). Effective teachers are considered to be experts in classroom management (Dibapile, 2012). An influential meta-analysis by Wang et al. (1993) has shown that one of the most crucial elements that affect the quality of learning in the classroom is classroom management. Classroom management has an impact on almost all outcomes for students (Curby et al., 2013). In fact, Korpershoek et al. (2016) found in their meta-analysis that classroom management interventions had a small but significant effect on student outcomes. All these research findings indicate that if teachers manage their classrooms effectively, students develop academically, socially and emotionally.

Although classroom management is key to effective learning, classroom management is a serious issue not only for teachers but also for school leaders (Egeberg et al., 2016). It is one of the most important problems teachers face worldwide (Oliver et al., 2011). Especially student misbehavior is the biggest classroom management challenge for teachers (Dağlı & Han, 2017). Not surprisingly since teachers view classroom management as a challenge, disruptive student behavior creates stress for teachers (Freiberg et al., 2020). In their research, Reinke et al. (2011) have asked teachers the top three areas where they need extra training. Two of them were related to classroom management. This issue is worldwide and more insight into classroom management will be beneficial to teachers in every culture. Therefore, it is crucial that school leaders help teachers develop their classroom management skills and gain efficacy in classroom management for effective learning.

Although classroom management is defined differently in the literature, the definition offered by the pioneers of the field succinctly summarizes the essence of classroom management: any actions teachers take to create a supportive environment for the academic and social-emotional learning of students (Evertson & Weinstein, 2006). According to Brophy (2006), effective classroom management serves two purposes: "discipline" and "socialization." Discipline refers to preventing misbehavior and maintaining a quiet classroom; socialization refers to students' social development. It is important to note that Evertson and Weinstein (2006) emphasize both academic and social-emotional learning and similarly Brophy (2006) emphasizes both "discipline" and "socialization." This emphasis is crucial because the classroom strategies teachers use may enhance academic learning or establish discipline, but may have no effect on or even hinder social-emotional learning of students. For instance, punishment can lead to a quiet classroom and rote learning, but it often instills test anxiety in

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children (Owan et al., 2019). Similarly, rewards can create excitement in the classroom, but those who do not receive rewards may resent winners on the account that they may think rewards were unfairly distributed (Yaman & Güven, 2014). This could create a hostile learning environment. In other words, teachers may establish discipline but may not promote socialization (i.e., social and emotional development) in the classroom. Therefore, classroom management is not only about creating a neat learning environment but also helping students flourish in every aspect.

Two of the most important classroom management tools teachers use to manage their classroom is reward and praise. Praise is defined as the positive judgment of one's qualities, products, or characteristics based on subjective criteria (Henderlong & Lepper, 2002). For instance, when a student writes an essay, if the teacher says "This is excellent writing," this is praise. Reward is defined as a desirable object or an activity offered to students on a contingency (Bolat, 2016). For instance, if a teacher gives chocolate to students who read twenty pages every day, it is a reward since it is on the contingency of reading twenty pages.

There are different perspectives in relation to the effectiveness of reward and praise in classroom management. According to the behaviorist approach, teachers clearly define desired behaviors and teach them to students, and when students perform the desired behavior, teachers deliver reinforcement in the form of reward (Horner & Sugai, 2015). Similarly, Lane et al. (2015) suggest that teachers identify the desired student behavior and when students exhibit it, they receive behavior-specific praise. Praise as well as tangible rewards are used as a reinforcement (Alter & Hyden, 2017). The assumption is that providing a specific praise increases the probability of the behavior (Royer et al., 2019). According to Kazdin and Rotella, (2013) and Kazdin (2017), an intentional and specific praise reinforces behaviors, increasing the likelihood that they will occur again. The behaviorist approach argues that positive reinforcement leads to desired student behavior and negative reinforcement (i.e., punishment) leads to the extinction of undesired student behavior (Skinner, 1971).

This behaviorist approach has been criticized because this approach does not address students' intrinsic motivation or engagement in learning (Petrasek et al., 2022). Postholm (2013) argues that the purpose of classroom management is the management of learning, not just creating a noiseless classroom. Maggin et al. (2011) analyzed reward-based classroom management systems and found no evidence that it was effective. In the Turkish context, Han and Altunhan (2022) found that teachers believe that although rewards motivate students, their effect might be short-lived. Rewards and praise could lead to a short-term solution, but in the long term, they may fail to motivate students. Even worse, they may lead to an order in the classroom, but may fail to enhance what Brophy (2006) calls "socialization." For instance, in a study, it was found that rewards increased the helping behaviors of children in immediate situations but later diminished prosocial behaviors (Fabes et al., 1989). Ulber, Hamann and Tomasello (2016) obtained a similar result with three-year-olds.

According to Self-determination Theory (SDT) proposed by Ryan and Deci (2017), the behaviorist approach relies heavily on extrinsic motivation rather than intrinsic motivation (Kowalski & Froiland, 2020). SDT regards reward and praise as part of a controlling teaching style (Ryan & Deci, 2017). When rewards and consequences are emphasized as the primary reason, they are perceived as controlling (Froiland 2014; Su & Reeve 2011). In a controlling teaching style, all decisions are made by the teacher in the classroom (Soenens et al., 2012). There is empirical evidence that a controlling teaching style leads to negative outcomes for students (Bartholomew et al., 2018; Inayat & Ali, 2020). Even parents observe that a controlling teaching style has negative consequences for their children (Kowalski & Froiland, 2020).

Although many negative outcomes can be put forward regarding the use of reward and praise, the fundamental one is that externally controlling teaching styles lead students to adopt extrinsic regulation rather than autonomous self-regulation (Ryan & Deci, 2017). In turn, when students lack autonomous self-regulation, they need to be told what to do all the time, they cannot make their own decisions, and their organismic growth as an individual is thwarted. Corpus et al. (2016) found that when students are extrinsically controlled, they use maladaptive learning strategies, experience anxiety, and earn lower grades. Therefore, according to SDT, a controlling teaching style in the form of reward, praise, or punishment is not recommended. The most important element of classroom management is not to control students but "to enhance students' intrinsic motivation" (Reeve & Cheon, 2021).

SDT offers an autonomy-supportive teaching style as an alternative to a controlling teaching style. Teachers who support students' autonomy make students feel that their thoughts and feelings are valued (Froiland &

Worrell, 2017). Autonomy-supportive teaching includes using non-controlling language, acknowledging negative feelings and providing rationales (Deci et al. 1994), offering choice (Ryan & Deci 2008), encouraging students to solve their own problems (Grolnick & Apostoleris 2002) and vitalizing student interest in the classroom (Reeve et al., 2004). For instance, a controlling teacher posts classroom rules on the wall and tells students to follow the rules; an autonomy-supportive teacher, on the other hand, invites students to suggest guidelines that will make them comfortable in the classroom (Moè et al., 2022).

One of the important characteristics of SDT is relatedness. (Ryan & Deci, 2017). Relatedness refers to “the need to be close to, trusting of, caring for, and cared for by others” (Deci & Ryan, 2012, p. 421). Relatedness, that is, the interaction between teachers and students is crucial in student learning (Rudasill et al., 2010). Ertesvag (2009) found that a close teacher-student relationship has a considerable effect on students’ academic and behavioral outcomes. She developed a warmth scale to measure this interaction. When there is a warm relationship between teachers and students, this relationship provides support for students. These supports could be emotional, organizational, and instructional (Hamre et al., 2007). Emotional support includes caring for students, expressing warm feelings, and offering nurturance (Curby et al., 2013). Emotional support can be provided only by autonomy-supportive teachers. Research shows that when there is emotional support in the classroom, it reflects positively on every aspect of student outcomes (Hughes, 2011). Similarly, when there is a high-quality teacher-student relationship, there are fewer internalizing and externalizing behaviours (Curby et al., 2013; O’Connor et al., 2011). Furthermore, when teachers are warm towards their students, it not only prevents discipline problems but also instills responsibility in students (Hughes, 2002).

There are several programmes such as Responsive Classroom (RC), which produce effective student results without external rewards (Curby et al., 2013). Another good approach to classroom management that does not rely on extrinsic motivation is Social and Emotional Learning (SEL). A meta-analysis by Durlak et al. (2011) has demonstrated that SEL leads to reduced misbehavior, enhanced social competence, and academic performance. Therefore, it is possible for teachers to effectively manage the classroom by establishing a warm relationship with students without using any external motivators or reinforcers. In recent years, particularly thanks to studies drawing upon Self-Determination Theory (Ryan & Deci, 2017), there has been a transition from the behavioral approach to the internal approach (Wubbels, 2011). In the Turkish context, reward as well punishment is not only widely used, but also teachers believe they should be used (Güzelyurt et al., 2019). To the best of my knowledge, there is no study that has tested the effect of these management tools at the same time in a study. The purpose of this study is to explore profiles of teachers who use reward, praise, emotional punishment, a warm relationship through latent profile analysis and then compare these profiles in terms of their classroom management skills.

## **METHOD**

### **Research Design**

The current study used a cross-sectional design in which data were collected from individuals at a single point in time through different scales (Rindfleisch et al., 2008). The purpose of the study was to identify the latent profiles of teachers through Latent Profile Analysis (LPA), based on their classroom management behaviors. Four scales that measure teachers’ classroom management behaviours, the reward scale, the praise scale, the emotional punishment scale, and the warmth scale, were utilized to determine the latent profiles. Several fit indices were employed and the model that fit the data best was selected to determine the number of profiles (Akogul & Erisoglu, 2017).

### **Participants**

Data were collected through a link posted on various social media platforms, such as Instagram, Facebook and LinkedIn. A convenience sampling strategy was used because of its easy accessibility (Yıldırım & Şimşek, 2016). Data were collected from 804 participants. However, 225 participants who failed to respond correctly to the control question, who completed the scale in under a minute, who provided too much missing data, and whose four choices of responses were the same in a row were excluded from the analysis. The data from a remaining number of 579 teachers were included in the data. 457 participants (37 %) were female, and 117 participants (56,6%) were male. Data from 5 participants (6,3%) were missing. Their ages ranged from 22 to 68 years, with an average age of 41.6 (SD = 8.2). On average, teachers had 16.7 years of experience (SD = 7.9). In

terms of teaching level, 60 participants (10.4 %) were from preschool, 162 participants (28.0%) were from primary school, 191 participants (33.0%) were from middle school, and 160 participants (27.6%) were from high school. The data for 6 participants (1.0%) were missing.

**Research Instruments**

For latent profile analysis, four different scales were used. The Reward and Praise Behavior Scale was developed by Bolat (2023), which included two factors. The praise factor includes 6 items ( $\alpha=.93$ ), and the reward factor includes 7 items ( $\alpha=.93$ ). Sample items are: "When my student achieves a task, I praise him/her" and "I use rewards to motivate my students." The Verbal Emotional Punishment scale, which is a sub-dimension of the Parent Reward and Punishment Scale developed by Atli et al. (2022) was used. Items on this scale were written for parents. However, for this research, it was adapted for teachers. It included 4 items. However, one item was dropped due to a low-reliability score. Three items ( $\alpha=.65$ ) were used. Sample items are: "I yell at my students" and "I insult my students." The High Parental Expectation scale, which is a sub-dimension of the Perfectionism Scale developed by Frost, et al. (1990) was used. Items were adapted for teachers. It included 5 items ( $\alpha=.76$ ). Sample items are: "I set very high standards for my students" and "I want my students to be the best at everything." The Warmth Scale developed by Ertesvåg (2011) was used. It included 4 items. However, one item was dropped to due a low-reliability score. Three items ( $\alpha=.75$ ) were used. Sample items are: "I show interest in each pupil" and "I work actively to create good relationships with my pupils." To measure teachers' classroom management self-efficacy, the Teacher Efficacy Scale developed by Midgley et al. (1989) was used. It included 5 items ( $\alpha=.73$ ). Sample items are: "If I try really hard, I can get through to even the most difficult and unmotivated students", and "There is really very little I can do to insure that most of my students achieve at a high level." To measure the extent to which teachers use criticism and punishment, a single item for each construct was used. One item to measure teachers' criticism frequency was: "When my students do not do something well, I criticize them." One item to measure teachers' punishment frequency was: "I punish my students." A five-Likert type was used.

**FINDINGS**

**Correlations**

As the first analysis, the interrelationships among four main and four accompanying scales were calculated. The analysis is presented in Table 1.

**Table 1. Interrelationships Among Four Main and Four Accompanying Scales**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Reward (1)	<b>0.93</b>							
Praise (2)	0.50***	<b>0.93</b>						
Emotional Punishment (3)	0.01	0.10*	<b>0.65</b>					
High Expectation (4)	0.25***	0.23***	0.09*	<b>0.76</b>				
Warmth (5)	0.08	0.18***	-0.21***	0.02	<b>0.75</b>			
Classroom Management (6)	0.12**	0.11**	-0.31***	0.00	0.55***	<b>0.73</b>		
Criticism (7)	0.07	0.12**	0.39***	0.21***	-0.15***	-0.17***	—	
Punishment (8)	0.19***	0.08	0.43***	0.14***	-0.15***	-0.14**	0.35***	—
$\mu$	2.87	3.97	1.75	2.25	4.37	3.99	1.97	1.62
sd	0.91	0.83	0.48	0.72	0.55	0.55	0.94	0.69

\*p < 0 .05, \*\*p < 0.01, \*\*\*p < 0.001

Note: Cronbach's Alpha reliability scores were presented diagonally. N = 579.

As expected, there was a high correlation between reward and praise (.50 p < 0.001). As expected, reward was also correlated positively with high expectation (.25 p < 0.001) and punishment (.19 p < 0.001). Similarly, praise was correlated positively with high expectation (.23 p < 0.001) and criticism (.12 p < 0.01) and emotional punishment (.10 p < 0.05). It is also important to note that high expectation is positively correlated with reward (.25 p < 0.001), praise (.23 p < 0.001), criticism (.21 p < 0.001) and punishment (.14 p < 0.001). Emotional

punishment was positively correlated with high expectation (.09  $p < 0.05$ ), criticism (.39  $p < 0.001$ ) and punishment (.43  $p < 0.001$ ) and negatively correlated with warmth (-.21  $p < 0.001$ ) and classroom management (-.31  $p < 0.001$ ). As predicted, teachers who had high expectation were more likely to use reward (.25,  $p < 0.001$ ) and praise (.23,  $p < 0.001$ ).

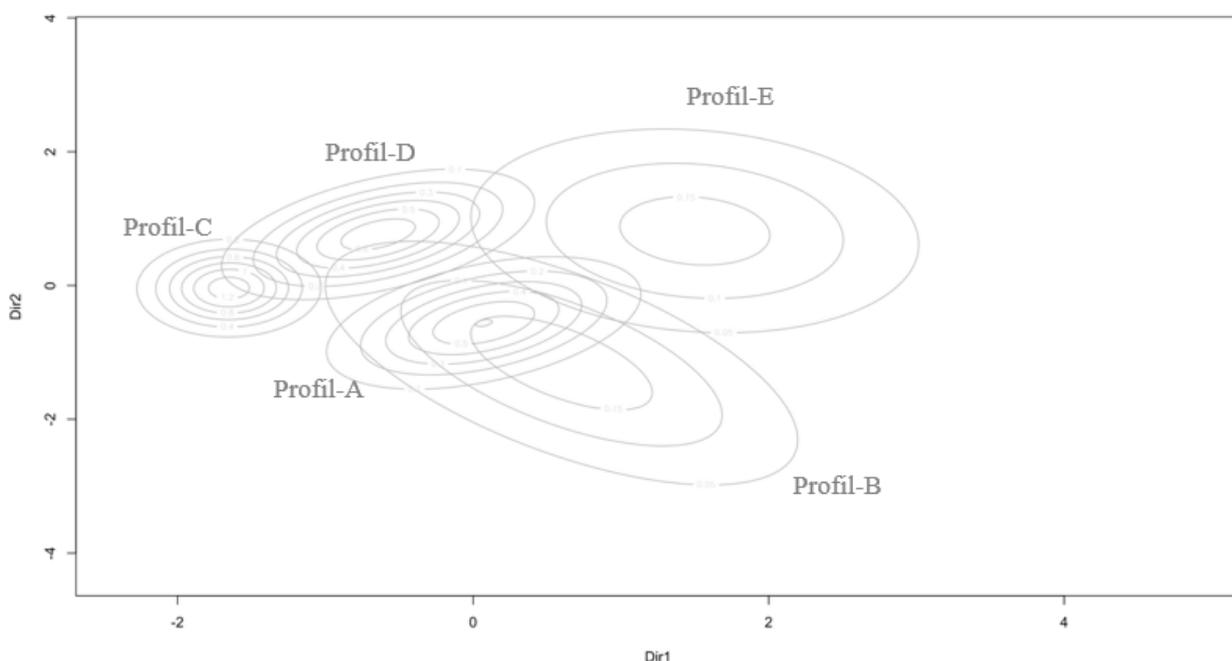
### The Profiles of Teachers

Latent profile analysis was conducted using the R v4.3.0 program (R Core Team, 2023) with the interface of RStudio v2023.06.0 (RStudio Team, 2023). Four scales (the reward scale, the praise scale, the emotional punishment scale, and the warmth scale) were included in LPA because we wanted to explore whether teachers, who reward and praise students, also punish them or establish a warm relationship with them. Before the analysis, all dimensions were centered and scaled. In the LPA, for the expectation-maximization algorithm; all parameters (variance-covariance) were released and the scaled SVD-based (singular value decomposition) MBHAC (model-based hierarchical agglomerative clustering) method was used (Scrucca et al., 2016). As a result of the analysis carried out with four dimensions, BIC recommended 5 profiles (6191) in the first place. In addition to BIC, ICL, which penalizes entropy (Biernacki et al., 2000), also recommended 5 profiles (6372) in the first place. The 5-profile model suggested by both algorithms has a structure of varying volume, varying shape, and coordinate axes orientation (VVI) (Scrucca et al., 2016).

It is not possible to visualize on a two-dimensional graph how participants behave and differentiate in 5 profiles based on 4 variables. Therefore, the projection of the data into the subspace has been calculated using Scrucca's (2010) dimension reduction method. As a result of the dimension reduction method based on profile averages, 97.9% of the data are explained by two dimensions (Direction 1 and Direction 2). How participants move according to these two dimensions is visualized in Figure 1.

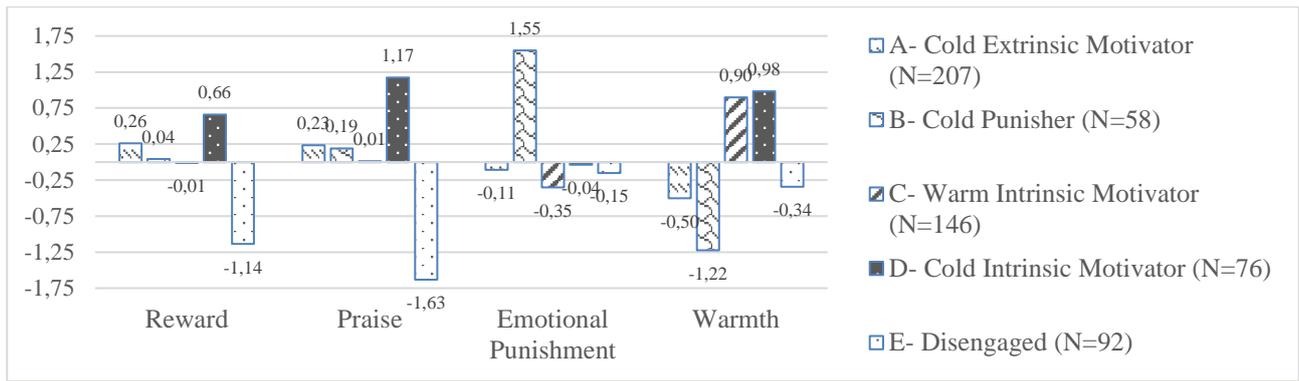
**Figure 1. Dimensions of the Profiles**

For the same 5 profiles, the APPA values (average posterior probability assignment) are above 0.77 (0.87 – 0.77



– 0.90 – 0.90 – 0.86), and the normalized entropy is 0.78. Profile-A (APPA = 0.87), Profile-B (APPA = 0.77), and Profile-E (APPA = 0.86) show a relatively lower average posterior probability of assignment compared to other profiles, which is reflected in Figure 1. However, it should be noted that the stability levels of the profiles are at an adequate level since they are above 0.8 or very close to 0.8 (Clark & Muthén, 2009; Jung & Wickrama, 2008). 78% of the participants have uncertainty levels below 0.2, and 98% have levels below 0.5. As a result of the LPA, the obtained profiles have been added to the dataset as a new variable, and the averages calculated based on these profiles are graphically plotted in Figure 2.

**Figure 2. Five Profiles of Teachers, Based on Their Use of Classroom Management Tools**



Five profiles emerged from LPA. They were named “Cold Extrinsic Motivators,” “Cold Punishers,” “Warm Intrinsic Motivators,” “Warm Extrinsic Motivators” and “Disengaged.” Each profile is briefly described below.

- A. *Cold Extrinsic Motivators*: These are the teachers who use reward and praise but not emotional punishment. However, they do not maintain warm relationship with their students. Their classroom management style is to use positive reinforcers, but not negative reinforcers or warm relationships. This profile represents % 35.75 of the sample.
- B. *Cold Punishers*: These teachers do not use reward or praise, but they use emotional punishment. In fact, teachers in this profile use emotional punishment the most. Not surprisingly, teachers in this profile do not establish warm relationships with students. This profile represents %10.02 of the sample.
- C. *Warm Intrinsic Motivators*: Teachers in this profile does not use reward or praise. Nor do they use emotional punishment. They manage the classroom through warm relationships. They are one of two profiles who maintain the warmest relationship with students. This profile represents %25.22 of the sample.
- D. *Warm Extrinsic Motivators*: Teachers in this profile are warm with their students, but they still use positive reinforcers, reward and praise. However, they also use emotional punishment although not to a great extent. This profile represents %13.13 of the sample.
- E. *Disengaged Teachers*: Teachers in this group are disengaged. They do not use reward or praise. They do not use emotional punishment either. They do not establish warm relationship with students either. This profile represents %15.89 of the sample.

**The Univariate Analysis of Classroom Management, Punishment, Criticism and High Expectation**

The purpose of employing one-way ANOVA tests was to assess whether there were differences in the average scores of classroom management skills, high expectation, punishment and criticism among the identified profiles (Table 2).

**Table 2. The Univariate Analysis**

	Profile-A CEM	Profile-B CP	Profile-C WIM	Profile-D WEM	Profile-E DIS	No Difference
N	207	58	146	76	92	
Reward	0.26	0.04	-0.01	0.66	-1.14	(A-B; B-C)
Praise	0.23	0.19	0.01	1.17	-1.63	(A-B; B-C)
Emotional Punishment	-0.11	1.55	-0.35	-0.04	-0.15	(A-D; A-E; C-E; D-E)
Warmth	-0.50	-1.22	0.90	0.98	-0.34	(A-E; C-D)
High Expectation	0.06	0.07	-0.03	0.29	-0.37	(A-B-C-D)
Classroom Management	-0.26	-0.95	0.48	0.77	-0.19	(A-E; C-D)
Criticism	0.07	0.71	-0.19	0.01	-0.31	(A-C; A-D; C-D-E)
Punishment	0.02	0.68	-0.14	0.02	-0.28	(A-C-D-E)

Note: The values given in the table are the averages of the dimensions according to the profiles. All dimensions are centered and scaled. Those without a difference at the 95% confidence level according to the Post-hoc Games-Howell test have been indicated. There is a significant difference at the 95% confidence level in all other difference tests.

Profiles were first compared in terms of their classroom management skills. As expected, teachers in two profiles (C- Warm intrinsic motivators and D- Warm extrinsic motivators) who maintain a warm relationship with students are better at classroom management. Whether they use extrinsic reinforcers or not (reward and praise) did not make a difference in their classroom management skills. Again, as expected, Profile B (Cold punishers) were the worst in classroom management. They only used punishment. Profile A (Cold extrinsic motivators) and Profile D (Disengaged Teachers) were below average at classroom management. Profiles were also compared in terms of their criticism behaviors. As expected, Profile B (Cold punishers) were using criticism the most. Teachers in two profiles (C- Warm intrinsic motivators and D- Warm extrinsic motivators) were using criticism the least. Profile A (Cold extrinsic motivators) and Profile D (Disengaged Teachers) were not using criticism, either. Profiles were also compared in terms of their punishment behaviors. Again, as expected, Profile B (Cold punishers) were using punishment the most. Teachers in two profiles (C- Warm intrinsic motivators and D- Warm extrinsic motivators) were using punishment the least. Profile A (Cold extrinsic motivators) and Profile D (Disengaged Teachers) were not using punishment either. When profiles were compared in terms of high expectations, the disengaged group had the least expectation. It is important to note that Warm Extrinsic Motivators had higher expectations than Warm Intrinsic Motivators although the difference was not significant. Profile C (Warm extrinsic motivators) did not have high expectations from the students, while Profile D (Warm Extrinsic Motivators) had high expectations. That is probably why they are using reward and praise. Age and experience did not affect the results ( $p>0.05$ ). What also differentiated these two groups was their score on emotional punishment. As expected, Warm Extrinsic Motivators were using emotional punishment, whereas Warm Intrinsic Motivators did not.

## DISCUSSION AND CONCLUSION

This study aimed to explore teachers' classroom management behaviors through latent profile analysis. Teachers' four classroom management behaviors (reward, praise, emotional punishment and warm relationship) were measured. As a result of LPA, five distinct profiles of teachers emerged from the data in relation to teachers' classroom management behaviors. The differences among these profiles were further validated, using four other scales (classroom management efficacy, high expectation, criticism and punishment). The present research was unique in that to my knowledge it was the first study who profiled teachers in terms of use of praise, reward, emotional punishment and warm relationship in relation to classroom management skills.

The study revealed very important findings regarding the nature of reward and praise and teachers' classroom management behavior. Firstly, the interrelationships among eight scales clearly showed that reward and punishment were positively correlated. Similarly, praise was positively correlated with emotional punishment and criticism. Teachers who give reward to students were more likely to use punishment. Similarly, teachers who praise students were more likely to use emotional punishment and criticism. These findings are in line with the arguments of SDT that praise and reward are mostly the classroom management tools of a controlling teaching style (Ryan & Deci, 2017). Normally, according to the behavioral approach, we would expect a negative correlation between praise and emotional punishment, and praise and criticism or between reward and punishment, but that was not the case in our study. Furthermore, teachers who had high expectations from students were more likely to use reward and praise. This is probably because they are trying to control students with reward and praise so that their high expectations are met by the students. Teachers who are the best at classroom management are those teachers who establish a warm relationship with students. Teachers who use reward and praise were good at classroom management, but only to some extent.

Five distinct profiles differed from each other in terms of four classroom management behaviors, namely the use of reward, praise, emotional punishment and warm relationship. The distinctions among them revealed significant findings. The profiles are discussed below from the least ideal to the most ideal.

*Disengaged Teachers:* Teachers in this profile do not engage much with students within their classrooms. They rarely use any of the four classroom management behaviors. They do not offer reward and praise. Nor do they punish students. These teachers do not establish warm relationship with students, either. It seems as if they are not engaging with students. This teacher could be what Moè et al. (2022) call "teachers with a chaotic classroom management style". They are probably letting things happen in the classroom with doing anything. These are probably the teachers who are burn-out or unmotivated.

*Cold Punishers:* These teachers engage with students within the classroom but in a punitive style. This group uses emotional punishment the most. They do not use reward or praise. Nor do they maintain warm relationship either. Their only management tool is emotional punishment. They control the class by yelling, screaming and, humiliation. They are the teachers who are probably the most controlling. Unlike Disengaged Teachers, they are probably trying to achieve success in the classroom, but the only way they know is to punish.

*Cold Extrinsic Motivators:* These teachers do not use emotional punishment, but reward and praise. They are relying on positive reinforcers rather than negative ones. However, they are not warm toward their students. They are managing the classroom through positive controlling styles rather than through maintaining warm relationships with students. This is in line with SDT because these teachers are using a controlling style rather than an autonomy-supportive style.

*Warm Extrinsic Motivators:* Teachers in this profile are similar to teachers in the profile Cold Extrinsic Motivators. However, unlike them, they are using both a positive controlling style and warm relationship at the same time. They are using emotional punishment to a lesser degree, but more than Warm Intrinsic Motivators. This group is the most interesting group in that they are using both a controlling style and an autonomy-supportive style at the same time.

*Warm Intrinsic Motivators:* Teachers in this profile are ideal teachers. As STD argues, these teachers do not use any of the positive or negative controlling style, such as reward, praise, emotional punishment. They are solely relying on their relationships with students to manage the classroom effectively. They are one of the two groups who are very good at classroom management, the other being Warm Extrinsic Motivators.

When these profiles were compared in terms of self-efficacy in classroom management, criticism, punishment and high expectations, a clear picture emerges. Teachers who maintain a warm relationship with students (Warm Intrinsic Motivators and Warm Extrinsic Motivators) are better at managing the classroom. This finding clearly shows that a warm relationship with students is key in effective classroom management (Wubbels et al., 2014). None of the other three groups establish a warm relationship with students and thus they are not effective at classroom management. This finding also indicates that the use of reinforcers, positive or negative, do not ensure an effective classroom management (Maggin et al., 2011). We would expect Warm Intrinsic Motivators to be better at classroom management than Warm Extrinsic Motivators since they do not

use any positive controlling style. However, unlike our prediction, Warm Extrinsic Motivators were equally good at classroom management. Perhaps, a warm relationship negates the negative effect of a controlling teaching style. Perhaps they are using a warm relationship as a controlling mechanism. This issue needs to be explored. As expected, Cold Punishers were the worst at classroom management. Cold Extrinsic Motivators and Disengaged Teachers were similarly not good at classroom management. It could be concluded that without establishing a warm relationship, it is not possible to manage the classroom effectively.

Unlike our prediction, Warm Extrinsic Motivators were as effective at classroom management as Warm Intrinsic Motivators. However, what differentiated these two profiles was the use of emotional punishment. There was a statistically significant difference between these two profiles. Warm Extrinsic Motivators was using emotional punishment much more than Warm Intrinsic Motivators. This finding is in line with the prediction of STD. A teacher with a controlling teaching style uses all types of controlling styles at the same whether it is positive or negative. They were using both positive reinforcers (reward and praise) and negative reinforcers (emotional punishment) at the same time. This was a crucial finding. This profile was managing the classroom well, but at a cost. They might be having an emotional scar on the students since they are emotionally punishing them. It should be noted that this profile was using emotional punishment much less than other groups, but more than Warm Intrinsic Motivators.

These two profiles also differed from each other in terms of high expectation, although this difference was not statistically significant, Warm extrinsic motivators had higher expectation from students than warm intrinsic motivators. High expectation might be the reason for using a controlling teaching style. In autonomy-supportive teaching style, control and pressure is minimized (Rouse et al., 2011). In a controlling teaching style, an interpersonal tone of pressure is increased (Aelterman et al., 2019). These teachers could be projecting their achievement needs to their students due to different internal pressure, such as ego-involvement (Grolnick et al., 2002). When teachers are ego-involved, they believe student success is their success.

## **SUGGESTIONS FOR FURTHER STUDIES**

Certain suggestions can be made for future studies. The study revealed that Warm Extrinsic Motivators were as effective at classroom management as Warm Intrinsic Motivators although they were using reward, praise and emotional punishment. Warm Extrinsic Motivators were also using a warm relationship. Perhaps a warm relationship negates the negative effect of a controlling teaching style. The reason why these teachers are using a controlling and autonomy-supportive style at the same time need to be further explored. Furthermore, both profiles are using a warm relationship to manage classrooms, but the reason why Warm Extrinsic Motivators need to use positive and negative reinforcers while a warm relationship is enough to manage the class. What distinguishes Warm Extrinsic Motivators from Warm Intrinsic Motivators need to be further explored. Similarly, Warm Extrinsic Motivators are using both reward and praise and a warm relationship whereas Cold Extrinsic Motivators are only using reward and praise, but not a warm relationship. Why do some teachers use only reinforcers but not a warm relationship? This issue also needs to be further explored. Cold Punishers are using only punishment, but not positive reinforcers. Why do some teachers choose positive reinforcers, but not negative reinforcers? Conversely, why do some teachers choose negative reinforcers, but not positive reinforcers? Further research is needed to answer these questions. Also, further research is needed to explore different variables and antecedents that affect teachers' classroom management styles.

School leaders can use these findings to design professional development to teach teachers about the potential negative effect of rewards and praise. School leaders can teach teachers how to build a warm relationship with students since it leads to effective classroom management. School leaders especially need to address the potential drawbacks of reward and praise since most teachers hold opposing views. By designing effective programmes, school leaders can support teachers to be better at classroom management.

## **Declarations**

### **Conflict of Interest**

No potential conflicts of interest were disclosed by the author with respect to the research, authorship, or publication of this article.

### **Ethics Approval**

The formal ethics approval was granted by the Ethics Committee of Süleyman Demirel University. I conducted the study in accordance with the Helsinki Declaration in 1975.

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## Research and Publication Ethics Statement

The study was approved by the ethics committee of the Ethics Committee of Süleyman Demirel University (Approval Number/ID: E- 87432956-050.99-520517). Hereby, I as the author consciously assure that for the manuscript the following is fulfilled:

- This material is the authors' own original work, which has not been previously published elsewhere.
- The paper reflects the authors' own research and analysis in a truthful and complete manner.
- The results are appropriately placed in the context of prior and existing research.
- All sources used are properly disclosed.

## Contribution Rates of Authors to the Article

1st author contributed 100%. The author thanks Ömer Antalyalı for his help and assistance during data analysis.

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