

Supplementary Table 1*Unique Teacher Behaviours Identified by the Binning and Winnowing Process, and Corresponding Theoretical Alignment*

		Self-Determination Theory			Transformational Leadership Theory			Achievement Goal Theory	Mindset Theory		Results		
Label	Student Item	Autonomy	Competence	Relatedness	Transformational	Transactional	Laissez-faire	Toxic	Mastery Climate	Performance/ Ego Climate	Growth	Fixed	Median β
Role model	My teacher acts as a person that I look up to.				√								0.046
Outside interest	My teacher asks me about my life outside of school (e.g., "what did you get up to on the weekend?").			√	√								0.033
Student input or choice	My teacher lets students have some input or make choices about the things they do in class (e.g., "you can choose which task to do first").	√			√				√				0.029
Instructions / Clear	My teacher provides clear instructions so the class knows exactly what to do (e.g., "run from here to the hoop, pick up a bean bag, then bring it back and put it in one of these hoops").		√										0.025
Criticism / losing or peer comparison	My teacher tells students when they are not doing as well as others (e.g., "Blue team beat you guys").		√							√		√	0.021
Teacher enthusiasm	My teacher is enthusiastic to make things fun and interesting (e.g., "All righty then! Let's get ready to ruuummbllleeee!").			√	√								0.021
Hope, encouragement, optimism	My teacher encourages students to keep going when they are having trouble in class (e.g., "I know you can do this"; "keep it up"; "almost there").		√		√						√		0.017
Expressing Affection	My teacher is warm and kind to students so they feel cared for (e.g., smiling; "it's good to see you").			√	√								0.011
Transparent Structure	My teacher provides an overview of what we are going to do in the lesson so that students know how things are organised (e.g., "In today's class, we're working on throwing skills in three ways...").		√										0.010
Enquiring about progress, welfare, feelings	My teacher asks students how they are doing in a way that shows care and concern (e.g., "how are you doing, Alex?").			√	√								0.009

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Label	Student Item												
Frequent criticism	My teacher frequently provides feedback to students (e.g., consistently walking around the class with suggestions for improving technique).		√						√				0.005
Variety	My teacher provides a variety of activities that keep things interesting (e.g., starter game followed by game to practice throwing and catching, with dodgeball to finish).	√							√				0.003
Discusses values	My teacher lets the class know what is valued in the classroom (e.g., "In this class, we help each other out if we need anything.").	√			√								0.000
Praise / Non-Specific	My teacher provides general praise (e.g., "good job"; "doing well").		√				√						0.000
Differentiating and scaffolding	My teacher gives students harder tasks if they find it too easy, or easier tasks if they find it too hard (e.g., "if you're starting, dive from the side of the pool. Most should dive from the blocks, but if you swim squad, use the springboard.").		√		√				√				0.000
Goals / competition	My teacher sets up activities where the goal is to do better than others so that students compete against each other (e.g., "let's see who's the best javelin thrower").		√							√		√	0.000
Exhibiting or uttering solutions / answers	My teacher gives answers to problems instead of letting us figure it out.	√											0.000
Abusive language (content)	My teacher calls students by hurtful names when they misbehave (e.g., "don't be a moron").			√				√					0.000
Active learning	My teacher sets up activities where all students are busy doing a task or solving a problem (e.g., "if you get tagged, you can do 10 push-ups to re-enter the game").		√		√				√				0.000

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Ask controlling questions	My teacher tells us what to do, but says it as a question (e.g., "Can you do it like I showed you?"; "Why don't you go ahead and show me?").	√											0.000
Attending to students	My teacher pays attention to the class so students do not feel ignored (e.g., walking around the class as they do an activity).			√	√				√				0.000
Chaotic Teaching	My teacher leaves students without clear instructions so the class waits while the teacher does something else (e.g., students waiting for teacher to set up equipment and activities).		√				√						0.000
Communicating perspective-taking statements	My teacher shows that they have tried to see things our way (e.g., "I can see why you're having a hard time with this one").			√	√								0.000
Criticism / fixed quality	My teacher tells students they're not good enough or not smart enough (e.g., "you're not tall enough for this sport").		√							√		√	0.000
Criticism / improvement or effort	My teacher tells students they will get better if they work hard (e.g., "if you work harder you will succeed").		√		√				√		√		0.000
Criticism / private	My teacher provides feedback in private (e.g., 1 on 1 with the student).		√		√				√				0.000
Criticism / public	My teacher provides feedback in public so other students can hear (e.g., yelled across the court).		√							√			0.000
Criticism / Specific	My teacher provides informative feedback in a way that helps students understand how they can improve (e.g., "if you shuffle rather than cross your feet you will be able to change direction faster").		√			√			√				0.000
Criticism / Unclear	My teacher provides general feedback (e.g., "come on, James, you need to do better").		√				√						0.000

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Label	Student Item												
Deadline statements	My teacher tells us we are running out of time to add pressure to finish the task (e.g., "We only have a few minutes left").	√											0.000
Exclusionary activities	My teacher sets up activities so there are times where some students aren't doing anything (e.g., "once you finish the circuit, just sit quietly until everyone else is finished").	√						√					0.000
Extra resources	My teacher provides options for more support or learning so students can choose to get more help if they want it (e.g., "if you want to stay back and practice now, I'll be here"; "come get some equipment if you want to practice at home").	√			√				√				0.000
Fair punishments	My teacher is fair when giving out punishments (e.g., punishing all three students who are speaking out of turn).			√		√							0.000
Fair rewards	My teacher is fair when giving out rewards (e.g., rewarding all three people who all completed a task).	√				√			√				0.000
Frequent praise	My teacher frequently praises students for good work (e.g., consistently walking around the class, identifying good technique).		√			√			√				0.000
Goals / objective standards	My teacher sets up activities with one goal so that all students are working toward the same level of performance (e.g., "your target is a 6.1 on the beep test to pass").	√								√		√	0.000
Goals / self-referenced standards	My teacher sets up activities where each student has their own goal so that students are trying to improve rather than compete (e.g., "try to beat your last beep-test score").		√		√				√				0.000
Grouping / Heterogeneous groups	In group activities, my teacher assigns students so that each group has a mix of abilities and there are no "top" or "bottom" groups		√						√				0.000

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Grouping / Homogeneous groups	My teacher put students in groups based on their ability so that there are "top" and "bottom" groups (e.g., fit students in one group, less fit students in another).		√							√		√	0.000
Humor	My teacher explains things in a way that makes students laugh so the class is fun (e.g.,).			√									0.000
Ignoring students	My teacher ignores some students in the class (e.g., ignoring an upset or misbehaving student).			√			√						0.000
Modelling correct technique	My teacher shows the class how to do things so students know how to do it right (e.g., "when throwing, see how my other hand points at the target?").		√		√								0.000
Offering hints	My teacher gives hints to help students along without giving them the "right answer" (e.g., "Holding the ball in your hands seems to work better than laying it on the ground"; "It might be easier to start closer to the ring.").		√		√								0.000
Outlining Punishment Contingencies	My teacher explains the rules and punishments to students (e.g., "if you two speak one more time, I'll sit you out").	√				√							0.000
Outlining Reward Contingencies	My teacher explains how students will be rewarded if they are good so that students work hard to get the reward (e.g., "if you work hard, we can play a game at the end").	√				√			√				0.000
Praise / fixed-quality	My teacher tells students how smart or talented they are (e.g., "you're very tall", "you make things look easy").		√							√		√	0.000
Praise / improvement or effort	My teacher praises students for their hard work and improvement (e.g., "you've really worked hard at this", "this is much better than you've done before").		√			√			√		√		0.000
Praise / private	My teacher praises students in private so that no-one else can hear (e.g., 1 on 1 with the student).		√		√				√				0.000

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Label	Student Item												
Praise / public	My teacher praises students in public so that other students can hear (e.g., yelled across the court).		✓							✓			0.000
Praise / specific	My teacher provides clear praise so that students know exactly what they did well (e.g., "that follow-through was smooth and continued to the target").		✓		✓				✓				0.000
Praise / winning or peer comparison	My teacher congratulates top performers so that everyone knows who did the best (e.g., "Sarah got the fastest time").		✓							✓		✓	0.000
Praise as contingent reward	My teacher praises students only when they do what they're told (e.g., "Good work. You did what I asked").	✓				✓							0.000
Pressuring language	My teacher sets rules that show who's in charge (e.g., "you should", "you need", "you have-to", "you must").	✓											0.000
Promoting cooperation	My teacher sets up activities that let us work together on tasks (e.g., "work together to get the frisbee down the field").			✓									0.000
Providing Rewards	My teacher provides rewards when students are good (e.g., "we all worked hard so let's play a game").			✓		✓			✓				0.000
Questions to check knowledge	My teacher asks the class questions that check what students know (e.g., "any questions?"; "how many steps can you take before you have to dribble?").				✓								0.000
Questions to expand understanding	My teacher asks the class questions that make students think outside the box (e.g., "what other sports do we use these skills?").		✓		✓								0.000
Rationales	My teacher explains why an activity is important for students or how it might be useful to them (e.g., "if we shuffle our feet, rather than cross them over, we can more quickly change direction").	✓			✓								0.000

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Responding to Queries	My teacher answers student questions fully and carefully (e.g., "No, if take three steps, it's a turnover").		✓		✓								0.000
Restricting cooperation	My teacher stops us from working together (e.g., "stop talking"; "practice this skill on your own").			✓									0.000
Showing vulnerability or humility	My teacher makes fun of themselves or points out their weaknesses (e.g., "my little chicken arms").			✓	✓								0.000
Trustworthy	My teacher behaves as someone I can trust.				✓								0.000
Unconditional positive regard	My teacher is still kind to students, even when they misbehave, so they still feel liked even when they are in trouble (e.g., "hey, you know that's not the right time for yelling, young man.").			✓									0.000
Undifferentiated challenge	My teacher sets tasks with the same level of challenge for all students (e.g., "try to do a lay up by using the backboard").		✓							✓			0.000
Unfair punishments	My teacher is unfair when giving out punishments (e.g., punishing only one of three students who are speaking out of turn).			✓				✓					0.000
Uttering directives / commands	My teacher orders us around (e.g., "Do it like this," "Move over here," or "Put that away.").	✓											0.000
Yelling or harsh tone	My teacher yells to get control of the class (e.g., "HEY!"; "STOP IT!").			✓				✓					0.000
Instructions / Unclear	My teacher gives the class instructions that are hard for some students to understand (e.g., "finish what I said last time").		✓				✓						0.000
Enforcing Punishments	My teacher punishes students who break a rule (e.g., sitting student on sideline after they misbehave).	✓				✓							-0.002
Unfair rewards	My teacher is unfair when giving out rewards (e.g., rewarding only one of three people who all completed a task).			✓				✓					-0.007

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Conditional positive regard	My teacher is less kind to students when they misbehave (e.g., "I'm sick of your behaviour"; disdainfully glaring at student).			√				√					-0.032
Count		17	32	19	26	10	5	6	19	10	3	7	71