

# The effect of teaching style on affective and cognitive motivation in physical education

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**Abstract**: The theory of accomplishment-generating motivation only adopts a social cognitive method to research behavior and motivation in sports education settings, illuminating how achievement goal theory is useful for anticipating and explaining beliefs, reactions, and behaviors in achievement settings. This study aimed to investigate how different teaching approaches teacher-centered and student-centered affected the emotional and cognitive motivational responses of students during physical education classes. This research used a strategy of mixed methods by adjusting the work design, authority, recognition, grouping, assessment, and class time structure, and the video data was evaluated. Using Several Mosston and Ashworth teaching methods including command style, reciprocal style, and guided exploration style, four teachers instructed 92 students to carry out this study. To evaluate teaching style, the Ames coding system was employed. An ANOVA analysis with the Bonferroni correction method was carried out to prevent type 1 errors, and it produced an alpha level of 0.002 as a result. According to the findings, guided and reciprocal discovery styles were more effective than command approaches in terms of student mastery, less focused teacher behavior, and cognitive and emotional responses.

Keywords: learning motivation, physical education, teaching styles

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#### **INTRODUCTION**

The theory of accomplishment-generating motivation only adopts a social cognitive method to research behavior and motivation in sports education settings, illuminating how achievement goal theory is useful for anticipating and explaining beliefs, reactions, and behaviors in achievement settings. The major objective in the context of accomplishment in physical education, according to Karlefors & Larsson (2018), is demonstrating high ability or, alternatively, avoiding demonstrating low ability. Two main concepts namely the ability to subjectively determine the perception of success and failure in the context of physical education. Individual assignments from each student are carried out using the concept of undifferentiated ability, it is explained that ability is the level of ability and effort that refers to learning and improvement and self. On the other hand, the ego involved in the individual causes the individual to use different abilities; this explains that the ability is not explained as an effort but becomes a capacity so that it is shown when trying to outperform others (Artha et al., 2020). Ego involvement can be further elaborated on the purpose of the approach to demonstration of ability and the goal of avoiding demonstration of low ability. According to Knolwes et al (2018), an individual's engagement in a certain scenario is thought to be a consequence of their predisposition to pursue a specific attainment objective (goal orientation) and contextual elements like motivation. A recent study by Hastie & Casey (2014) showed that compulsory physical education settings have considered the importance of motivation rather than goals in setting achievement goal orientation.

The teacher highlighted the importance of motivational skills in raising students' self-awareness and effort levels, and success was further defined as personal growth (Karlefors & Larsson, 2018,



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Gustian et al., 2019). In contrast, ego-involved performance occurs when teachers encourage normative comparisons and student success is assessed using other student performance outcomes. Research by Casado Robles et al (2020) adaptable motivational responses were connected to how mastery is perceived in the classroom. For instance, feelings of pleasure, a desire for self-improvement and less boredom, stronger intrinsic motivation and ability, and the idea that skill and effort are the keys to success may be linked to a more favorable attitude towards physical education. Additionally, it has been discovered that increasing physical activity behavior is favorably connected with perceived classroom mastery (Díaz-Cueto et al., 2010) and disciplined behavior (Chu & Zhang, 2018) in physical education. Furthermore, performance is associated with affective and cognitive responses, shows greater boredom, belief in ability is more dominant than efforts to achieve success, has more negative attitudes and enjoys physical education less (Artha et al., 2020, Ardian et al., 2019).

The research of Karlefors & Larsson (2018) encourages students to grasp the motives listed in the task, authority, recognition, grouping, assessment, and time structure in the classroom so that the instructor can control them (Table 1).

Target	Emphasized mastery	Emphasized performance
Task	Self-referred, multidimensional, varied, and distinct goals	Goals that are comparative, one- dimensional, and undifferentiated
Authority	Students are given leadership responsibilities and take part in making decisions.	All choices are made by the teacher
Confession	Acknowledgment of one's own progress and effort	Comparative performance and ability recognized publicly
Grouping	Groupings and cooperative abilities	Groupwork skills
Evaluation	Refers to oneself. Based on improved ratings and efforts, keep a personal journal and consult with	Typical and widespread
	teachers	
Time	Additional time to complete the assignment	Unsupplied time for job fulfilment

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Table 1.	Behavioral	targets	tnat	arrect	motiv	ational	mood

(Karlefors & Larsson, 2018)

Karlefors & Larsson (2018), suggest that to emphasize mastery, the teacher designs lesson assignments to emphasize the objectives of mastery, variety, novelty, and differentiation. Here, students are given the chance and freedom to make decisions as part of an authoritative system that also involves them in the learning process. Individual development and effort are highlighted in the assessment and recognition process. Moreover, it is given personally to each student, thus providing an opportunity for all students to succeed. Grouping management in learning must be cooperative and use heterogeneous arrangements in grouping and vary. Furthermore, the time structure should be maximized during the study so as to allow students to complete assignments with flexible time. Teaching interventions focus on mastery to improve affective and cognitive responses in physical education. When it comes to performance, however, the focus will be more on competitive one-way assignments, teacher authority, normative-based public recognition and assessment, ability groups, and strict practice regimens.

The learning process is divided into three phases: planning (pre-impact), teaching (impact), and assessment (post-impact). During these phases, teachers and students can choose which teaching strategies to employ (Bailey, 2013). The decision-making approach that places the instructor at the center of all three learning phases is at the other extreme of the spectrum. As opposed to student-centered instruction, a self-directed teaching strategy places the student at the center of the learning process. Barnett et al (2013) methodically classify and define a range of additional styles, each with its own particular framework for making decisions. Production and reproduction are two separate groupings that make up the spectrum. Students learn most effectively in production groups while seeking out fresh knowledge and original approaches to issues. While the reproduction group, produces the primacy of learning for students to reproduce and remember motor skills from known information.

The effect of inclusion style versus exercise style on students' intrinsic motivation and goals orientation in physical education lessons was discovered (Riyadi, 2017, Firmansyah, 2011, Hendri & Aziz, 2020). In the inclusive method, students were given options about the task's level of difficulty, the approach they choose, and whether they want to be evaluated independently or by the teacher. The

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teacher emphasizes decisions in this practice method. The findings demonstrated a positive correlation between an inclusive teaching approach and greater levels of intrinsic and task motivation, as well as lower levels of work avoidance. Therefore, the purpose of this study was to ascertain how students' cognitive and emotional motivating responses in physical education were affected by teacher-centred vs student-centred teaching approaches.

#### **METHODS**

This research is mixed methods research with a concurrent mixed methods strategy. In this approach, the researcher gathers both forms of data simultaneously before combining them to create a single piece of knowledge for the interpretation of the overall findings. Four physical education teachers (two boys, two girls; age = 24.15, SD = 1.2) enrolled in the Teacher Professional Education (PPG) program, and a total of 138 students (n = 65 male students and n = 73 female students, age, M = 14.91, SD = 0.38) participated in this study. The instructors granted informed agreement to participate in the study after being randomly chosen from the classrooms. The headmaster provided their assent, and all of the children and parents agreed to participate in the research. In regular physical education sessions, the instructor instructs the students while a physical education supervising teacher is also present. Lessons last 65 to 75 minutes on average. All classes included in the study were selected randomly.

As part of their PPG physical education training, teachers learn about the Karlefors & Larsson (2018) spectrum of teaching approaches. One-hour lectures on the framework, learning objectives, and real-world applications of physical education connected to various teaching methods are given. The implementation of a range of teaching approaches is also included in the 12-hour university teaching program in physical education that is given to teachers (Arias-Estero et al., 2020; Calábria-Lopes et al., 2019; Díaz-Cueto et al., 2010; García-González et al., 2020).

Middle-distance running (command style), sprinting (reciprocal style), and shooting in soccer are some of the physical education courses taught for the various styles (guided discovery style). Twelve face-to-face physical education lessons were recorded in the twenty to twenty-fourth week of the total school learning, which is twenty-six weeks during one PPG year. When recording classes, the camcorder is set up such that it won't disrupt the lecture and can keep its attention on the instructor the entire time. For voice instructions, teachers utilize wireless microphones. From the time that every student enters the classroom until they were dismissed by the teacher, a video recording is being made. Changes to task configuration, authority, recognition, grouping, assessment, and class time organization were used in the analysis of video data (Karlefors & Larsson, 2018). The hard disk software allowed the collection of video and audio recordings and the live analysis of data collected from observations of physical education lessons (Table 2).

Target	Mastery		Not behavior		Performance	
Tasks (frequency)	Self-reference/group-reference	1	Unclear task	3	Competitive assignments	2
· · · · · ·	Multidimensional/different tasks	5	No heating and cooling	4	Unidimensional/same task	6
	Differentiation/quite challenging for all	7	C		Undiscriminatory/not challenging for all	8
Authority (duration)	Students are assigned leadership roles and are involved in decision making	9			The teacher makes all the decisions	0
Recognition and Evaluation (frequency)	Focused recognition/evaluation self- referencing efforts, improvement, achievement, personal knowledge	R	General rating/feedback (to anyone)	G	Focused recognition/evaluation on normative ability, knowledge comparison	Ν
	Focused recognition/evaluation self- referencing efforts, improvement, achievement, public knowledge	E	Focus on luck	L		

**Table 2**. Coding for the study of motivation-related teaching behavior

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Grouping (duration)	Small heterogeneous/mixed ability group	М			Homogeneous ability group	А
	Cooperative group/individual	Η			Competitive group	С
Time (frequency)	Flexible time to practice, plan and evaluate	F	Inactive time	Ι	Inflexible time to practice, plan and evaluate	Р

In order to compare instructional approaches, the frequency of student mastery, performance, and instructor assessments is categorized. The authority, grouping, and length of instructional conduct were all coded similarly. The motivating behavior measure was created and tested by two researchers, who also carried out video analysis simultaneously. Until a clear understanding was formed between the two researchers about classroom mastery, performance, and not teaching style behavioral characteristics, both researchers had the freedom to pause and repeat the video for debate. One week after the three-week training program was through, a random selection of 8 students was made with the intention of having them take part in separate group talks with the primary investigator. This group sought to learn more about the emotive and cognitive reactions of students to various teaching philosophies.

#### **RESULTS AND DISCUSSION**

For each teaching approach, the average proportion of tasks, authority, recognition, grouping, assessment, and class time structures that were mastered by 'mastery', 'performance', and 'non-existence' was determined (Table 3).

<b>Table 3</b> . Comparison of target combinations between teaching styles										
Mean % of assessed behavioral goals			Guided discovery		ANOVA					
8	М	SD	М	SD	М	SD	F	р	d.f	
Mastery	26.01	6.86	59.28	7.60	30.85	2.43	12.77	0.002*	2.9	
Performance	48.87	6.76	24.62	4.82	32.21	1.76	14.26	0.001*	2.9	
There is not any	25.01	3.36	21.86	6.14	24.57	3.45	0.417	0.21	2.9	

\*significant at the level of 0.002

For each task configuration structure, authority, recognition, grouping, evaluation and class time structure individually (Table 4-6).

Table 4. Comparison of task structure among teaching styles										
Mean % of assessed behavioral	Comm	and	Recipr	ocal	Guided	Guided		ANOVA		
goals					discove	ry				
	М	SD	Μ	SD	М	SD	F	р	d.f	
Mastery	66.26	8.35	37.14	18.75	66.46	11.65	6.60	0.02	2.9	
Performance	0	0	14.01	2.13	0	0	23.16	0.00*	2.9	
Heating (none)	28.37	13.67	45.62	21.75	27.35	18.12	1.42	0.41	2.9	
Unclear task (none)	3.66	6.23	0	0	5.23	7.46	0.61	0.52	2.9	
Multidimensional task (mastery)	0	0	35.71	21.52	9.76	1.73	7.49	0.01	2.9	
Unidimensional task	100	0	64.25	23.52	91.02	1.71	7.78	0.01	2.9	
(performance)										
Distinguished tasks (mastery)	0	0	32.54	23.49	9.77	1.72	4.87	0.04	2.9	
Undifferentiated tasks	100	0	66.40	24.23	91.03	1.79	4.74	0.04	2.9	
(performance)										

\*significant at the level of 0.002

Table 5. Comparison of authority and structure/evaluation between teaching styles										
Mean % of assessed behavioral	Comm	nmand Reciprocal		Guided		ANOVA				
goals					discove	ry				
	М	SD	Μ	SD	М	SD	F	р	d.f	
Student authority (mastery)	3.45	4.26	57.4	6.87	42.1	9.06	61.5	0.00*	2.9	
Teacher authority (performance)	95.71	4.28	42.7	7.18	55.75	9.15	61.5	0.00*	2.9	
Personal mastery and evaluation	6.83	11.76	8.19	12.72	1.16	1.14	0.44	0.59	2.9	

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General mastery and evaluation	25.42	14.51	58.51	21.22	43.34	21.72	3.13	0.12	2.9
Performance and evaluation		34.35		3.32	6.25	12.1		0.19	2.9
General recognition and evaluation	37.76	21.69	27.45	21.15	47.25	21.57	0.74	0.35	2.9
(not behavior)									
Luck and evaluation (not behavior)	0	0	0	0	0	0	-	-	2.9
*significant at the level of 0.002									

Table 6. Comparison of grouping and time structure across teaching styles	
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Mean % of assessed behavioral goals			Guided discovery		ANOVA				
-	Μ	SD	Μ	SD	Μ	SD	F	р	d.f
Whole group (performance)	22.23	7.29	10.24	5.46	6.19	3.32	9.52	0.005	2.9
Cooperative group (mastery)	75.52	7.24	83.15	5.31	92.68	3.32	9.23	0.005	2.9
Competitive group (performance)	0	0	4.46	0.38	0	0	32.20	0.01*	2.9
Mixed ability group (mastery)	43.27	43.22	87.52	5.46	92.68	3.32	4.3	0.04	2.9
Ability group (performance)	32.27	33.61	0	0	0	0	2.81	0.21	2.9
Flexible time (mastery)	0	0	40.1	8.78	4.73	1.79	72.3	0.001*	2.9
Inflexible time (performance)	50.48	11.72	18.35	5.13	47.44	7.24	18.36	0.001*	2.9
Inactivity time (both)	47.32	11.72	38.41	5.83	45.52	6.79	1.22	0.23	2.9

\*significant at the level of 0.002

The assignment, recognition, and evaluation structures take into account the average percentage of teaching style frequency, while the authority, grouping, and time structures in the classroom also consider the average percentage length of teaching style. A series of ANOVAs were carried out with the Bonferroni correction applied to avoid Type 1 error to see if there is a significant difference between the teaching styles employed by the instructor and how it might affect students' motivation. According to the study's findings (Table 3), there is a considerable difference in teaching philosophies in terms of the typical proportion of performance in both mastery and pedagogy. Table 2 explain the examination of the work configuration, authority, recognition, grouping, assessment, and time structure in each class. Table 4 demonstrates the stark contrasts in teaching methods for competitive performance objectives, mastery authority (where students take on leadership or decision-making roles), and competitive performance goals (where teachers make all decisions) (competing with it).

The command style, reciprocal style, and guided style all performed significantly differently in terms of overall mastery and teaching style, according to Tukey's posthoc follow-up test. The combined mean percentage mastery behavior in Table 3 specifically demonstrates that the command style performs much worse than the reciprocal and guided styles. Table 3 further demonstrates that the behavior of the combined average % performance is substantially greater when the command style is used. Table 5 provides further post-hoc analysis of task configuration, delegation, recognition, grouping, assessment, and time structure in certain classes. This method has a much lower rate of student delegation and a larger percentage of instructor delegation. Table 4 contrasts command with guided and reciprocal methods. Between the reciprocal approach and the other two forms of establishing competing goals, there were also notable distinctions, as shown in Table 6 by the division of students into competitive teams and the availability of flexible and inflexible practice times.

Data from student groups were analyzed in three steps. The lead investigator first divided the written replies of all students into the advantages and disadvantages of each teaching method. Second, similar student responses are inductively grouped based on general statements intended to represent them. For instance, if a student responds, "The teacher pushes us well and the instructor continually pushes us to work harder and be better," these comments are collected and signified by the teacher supporting effort and advancement. The response's calculation is then indicated by the percentage of the entire sample. Third, Table 7 lists the replies that the main investigator deductively divided into the task, authority, recognition, grouping, evaluation, and class time structure categories to ensure consistency with behavioral data analysis.

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Target structure	Practice style	Reciprocal style	Guided discovery style
Task	Positive response	Positive response	Positive response
	Enjoy the warm up (26%)	Learn how to get started	Enjoys trying different
		right (36%)	techniques (26%)
	Enjoyed running (6%)	Good variety of	Lessons gradually build the
		learning (12%)	right way to kick (16%)
	Learn how to get fit (2%)	Fun lessons (12%)	Fun lessons (6%)
	Negative response	Negative response	Doing different things so we
			don't get bored (2%)
	Boring learning (29%)	Feeling boring (16%)	Interesting lessons (2%)
	Repeat lessons (22%)	Not enough variety	Negative response
	Repeat 10350113 (2270)	(2%)	Regarive response
	Dislikes running (16%)	Insufficient heating	Lessons are boring (12%)
	Distikes fulling (10%)	-	Lessons are bornig (12%)
	Not looming much $(60)$	(4%) Departitive learning	Not an augh besting $(00)$
	Not learning much (6%)	Repetitive learning	Not enough heating (9%)
		(2%)	
	Heating too long (6%)		Too many repetitions (6%)
	Heating not done (6%)		Useless activity (6%)
	Lower ability group should		
	run shorter distance (2%)		
Authority	Positive response	Positive response	Positive response
	Demonstrations of good	Enjoy teaching each	Good demonstration (9%)
	teachers (6%)	other (29%)	
	Good explanation (6%)	Good demonstration	We found the correct way to
		from the teacher (2%)	throw (2%)
	Well organized (2%)	Clear guidance (2%)	Clear instructions on what to
			do (2%)
	The teacher tells us the speed	Good explanation (2%)	
	to run (2%)		
	Negative response	Negative response	Negative response
	No chance to make a decision	Bed linen needs more	Some students mess up (2%)
	(2%)	explanation (12%)	- · · ·
		Strict teacher (2%)	Does not understand some
			instructions (2%)
		Some people screw up	Not many teachers (6%)
		(2%)	
Recognition and	Positive response	Positive response	Positive response
evaluation	r contro response	r source response	r shuve response
, araution	Teachers encourage effort	Increase my speed (2%)	Improve my performance
	and improvement (29%)	mercase my speed (270)	
		Negative response	(22%) Learn new skills and how to
	Teachers are very helpful	riegative response	
	(12%)	No reas between	improve techniques (16%)
	Happy to increase (9%)	No race between us $(20)$	Teachers help individuals $(60)$
	Teesham main (201)	(2%)	(6%)
	Teachers praise us (2%)		Increase my self confidence
			(2%)
	Negative response		Teacher gives good
	<b>—</b> • • •		encouragement (2%)
	Teachers only pay attention		Negative response
	to certain students (2%)		
	No competition (2%)		Not getting time for
			measured and recorded
			throws (6%)
			Desition accordence
Group	Positive response		Positive response
Group	Positive response Put in the ability group not to		Working with friends and
Group	Put in the ability group not to		Working with friends and
Group	Put in the ability group not to show us (6%)		
Group	Put in the ability group not to		Working with friends and

Table 7. Percentage of student responses that focus on teaching style

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	Dislike performing after higher ability group (2%)		
Time	Positive response	Positive response	Negative response
	Good workout (2%)	Plenty of time to practice and study (12%)	Lessons are too slow (16%)
	The lessons are intense (2%)	Negative response	Too much standing (6%)
	Negative response	Slow lessons (6%)	Teachers spend too much time talking (2%)
	Not enough time (16%)	Not enough time (6%)	Not enough time for each technique (2%)
	Not all are fully involved in		Not enough time for each
	the lesson (6%)		technique (2%)
			Heating too long (6%)

Analysis of student group responses was presented deductively in relation to task objectives, design and differentiation explained the commanding style where the most positive feature was 26% of enjoyment of doing the task in the warm-up phase, while 29% of task boredom was a negative response, for example only running becomes a tedious activity, 22% of tasks are repetitive, 16% don't like organized tasks. Of the reciprocal styles presenting the most positive features were 36% task learning, for example how to start correctly in a sprint, 13% various tasks and 12% fun learning elements. The negative response of the reciprocal style is 16% of the presence of a tedious task. As for the guided discovery style, 26% enjoyed trying various soccer techniques, 16% the lessons went well. The negative response is 12% boredom factor and 9% inadequate heating. The group of students gave responses to the structure of authority, such as decision-making and leadership roles, it was explained that students agreed 9% of the practice style as from leadership and decision-making aspects. 29% of students gave feedback in a reciprocal style that it was very pleasant to help each other and 12% said the teacher needed to provide further explanation about the given task. 9% of the responses to the guided discovery style stated that teachers are better at leading students through demonstration thinking.

Twenty-nine per cent of the command style responses in the focus group to the recognition and evaluation structure stated that teachers encourage students to put forth more effort and perform better, 12 per cent of students feel the teacher is very helpful, and 9 per cent of students like their performance has improved. In the reciprocal style, no response exceeds 9% on the recognition or evaluation structure. The guided discovery style showed 22% of students had improved performance, 16% of students believed they had learned new techniques and skills. The response of any teaching style on the grouping of students is not more than 9%. However, 6% of students responded to the commanding style as a positive aspect of the ability group, for example students were placed according to ability in one group. In the guided discovery style, 7% of students showed positive aspects of working with friends and helping each other. Nearly 16 per cent of students believe that the command style's flexible lesson time and activity time structures are insufficient. While this is going on, 16 per cent of students believe that the guided exploration method moves too slowly. Additionally, students reported that it takes a lot of practice and learning time to master 13 per cent of the reciprocal learning methods.

According to video research on how teaching methods affect students' motivation, mastery was much higher and more concentrated when instruction was teacher-centred. The commando approach still predominates in Indonesian physical education teaching and learning, notwithstanding significant adjustments brought about by the National Curriculum (Rohmansyah, 2018; Suherman, 2014). Research on student motivation demonstrates that control of the classroom environment results in more flexible motivating responses than circumstances requiring performance (Amado et al., 2019; Appleton et al., 2011). Affective, cognitive, and behavioral reactions include the need for self-improvement, success-related satisfaction, greater exercise, and a more favourable view of physical education. The impression of a mastery-oriented environment is linked to the action of engaging in physical activity.

This study described a student-centered and guided discovery reciprocal learning style reflecting better mastery and a performance-oriented teaching style than a less than optimal command style. Atmosphere on performance, teachers should use more varied student-centered teaching styles. However, differences in student motivation can imitate the behavior of the same teacher differently (Riyadi, 2017; García-González et al., 2020). Karlefors & Larsson (2018) continue to question whether

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the multiplicative or additive nature of the classroom's job design, authority, recognition, grouping, assessment, and time structure. If the structure is multiplicative, it cannot compensate for each other. Furthermore, if it is additive, power in another structure, such as assessment, may shift a lack of mastery emphasis on one structure, such as student authority. Therefore, if the structure interacts multiplicatively, the teacher will not be able to increase the perception of the atmosphere of mastery. Therefore, in order for students to experience a mastery-based learning environment, all task configuration structures, authority, recognition, grouping, assessment, and time structures in the classroom must be mastery-focused. Even though there was a noticeable difference (Table 5), the teacher in the reciprocal lesson only gave students one competitive activity. Regardless of the teaching method, the instructor creates a motivating environment by emphasizing mastery, effort, and personal growth (Riyadi, 2017; García-González et al., 2020). The guided exploration style and command style sessions did not separate the students into competing groups, therefore the reciprocal style and the other two styles exposed significant differences (Table 7). According to this study, reciprocal learning has a more flexible learning schedule than the other two forms. Accordingly, focus group responses revealed that it was more successful to create a task structure that was mastery-focused by emphasizing a more studentcentred, reciprocal, and guided manner (Table 7).

After comparing the study of teaching techniques with the group responses supplied by the students for each approach, an exciting result was drawn. First and foremost, much more mastery was explained by a more student-centred and reciprocal led teaching method. Finally, the replies from the student groups were more flexible, student-centred, and learning-focused, with less attention to boredom. Research must continue to identify ways to support affective and cognitive motivational responses by implementing mastery teaching methods in physical education. Affective and cognitive motivational responses are crucial for enhancing physical activity behavior. A further comparison of teaching methods using behavioral analysis led to group student findings for task configuration structure, authority, recognition, grouping, evaluation, and class time structure, which explain why students respond favourably to more flexible practice schedules in a reciprocal style. Furthermore, in command learning and guided discovery styles are considered as negative aspects due to lack of flexibility.

#### CONCLUSIONS

Teacher conduct was more focused on mastery than the teacher-centred command style while using the student-centred reciprocal teaching method and guided discovery. Additionally, students' emotional and cognitive responses were more flexible to a student-centred approach that placed more of an emphasis on learning, variation, improvement, and fun while minimizing repetition and boredom. The motivational effects of affect and cognition greatly promote physical activity. After comparing the study of teaching techniques with the group responses supplied by the students for each approach, an exciting result was drawn. First and foremost, much more mastery was explained by a more studentcentred and reciprocal led teaching method. Finally, the replies from the student groups were more flexible, student-centred, and learning-focused, with less attention to boredom

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