



The Effects of Competition and Student Ability on Achievement Goals

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Introduction		
Achievement Goal Types		
	Mastery	Performance
Approach	A student whose main purpose is to get better and learn more material about a subject (Kamarova et al., 2017).	A student who wants to look like they know the material and can complete the material in front of peers (Hansen & Ringdal, 2018).
Avoidance	A student who wants to avoid making mistakes (Kamarova et al., 2017).	A student who does not want to look bad in front of peers or attract negative attention to themselves while completing material (Hansen & Ringdal, 2018).

Research has shown that competition can facilitate performance goals in students, which can have a detrimental effect on learning (Lam et al., 2004). However, it might be more detrimental for students of lower ability (Bergin, 1995).

Purpose:
 The purpose of this study is to determine if student ability and competition are factors that determine how students arrive at their achievement goal type.

Hypothesis 1:
 When competition is present, students with low ability will be performance-avoidance goal oriented and students with high ability will be performance-approach goal oriented.

Hypothesis 2:
 When competition is not present, students with low ability will be mastery-avoidance goal oriented and students with high ability will be mastery-approach goal oriented.

Methods	
Participants	129 Winthrop students
	<ul style="list-style-type: none"> 90 women, 35 men (2 prefer not to answer, 2 other) 74 Caucasian, 39 Black/African, 1 Asian, 1 Hispanic/Latino, 1 Native American (4 prefer not to answer, 9 other) 93 High Ability students, 36 Low Ability students <ul style="list-style-type: none"> High Ability: GPA of 3.0 or above Low Ability: GPA of 2.99 or below
Materials	There were two versions of the packet.
	<ul style="list-style-type: none"> Competitive vs Control Both versions contained identical items in the same order. <ul style="list-style-type: none"> Brief reading passage Five-question multiple choice quiz Achievement Goal Questionnaire (Elliot & Murayama, 2008) Demographic questions Instructions for the quiz were different. <ul style="list-style-type: none"> Competitive Packet Instructions: "We want to see who is the best and who is the worst..." Control Packet Instructions: "Answer to the best of your ability..."
Procedure	All participants were given a packet to complete.

	Mastery				Performance			
	Approach		Avoidance		Approach		Avoidance	
	M	SD	M	SD	M	SD	M	SD
Competition								
High Ability	3.41	1.09	3.05	1.07	3.48	1.31	3.56	1.17
Low Ability	3.30	1.04	2.78	0.94	3.78	1.19	3.49	1.22
Control								
High Ability	3.15	1.13	2.79	1.09	3.21	1.37	3.29	1.46
Low Ability	3.24	0.94	2.38	0.82	3.53	1.23	3.09	1.22

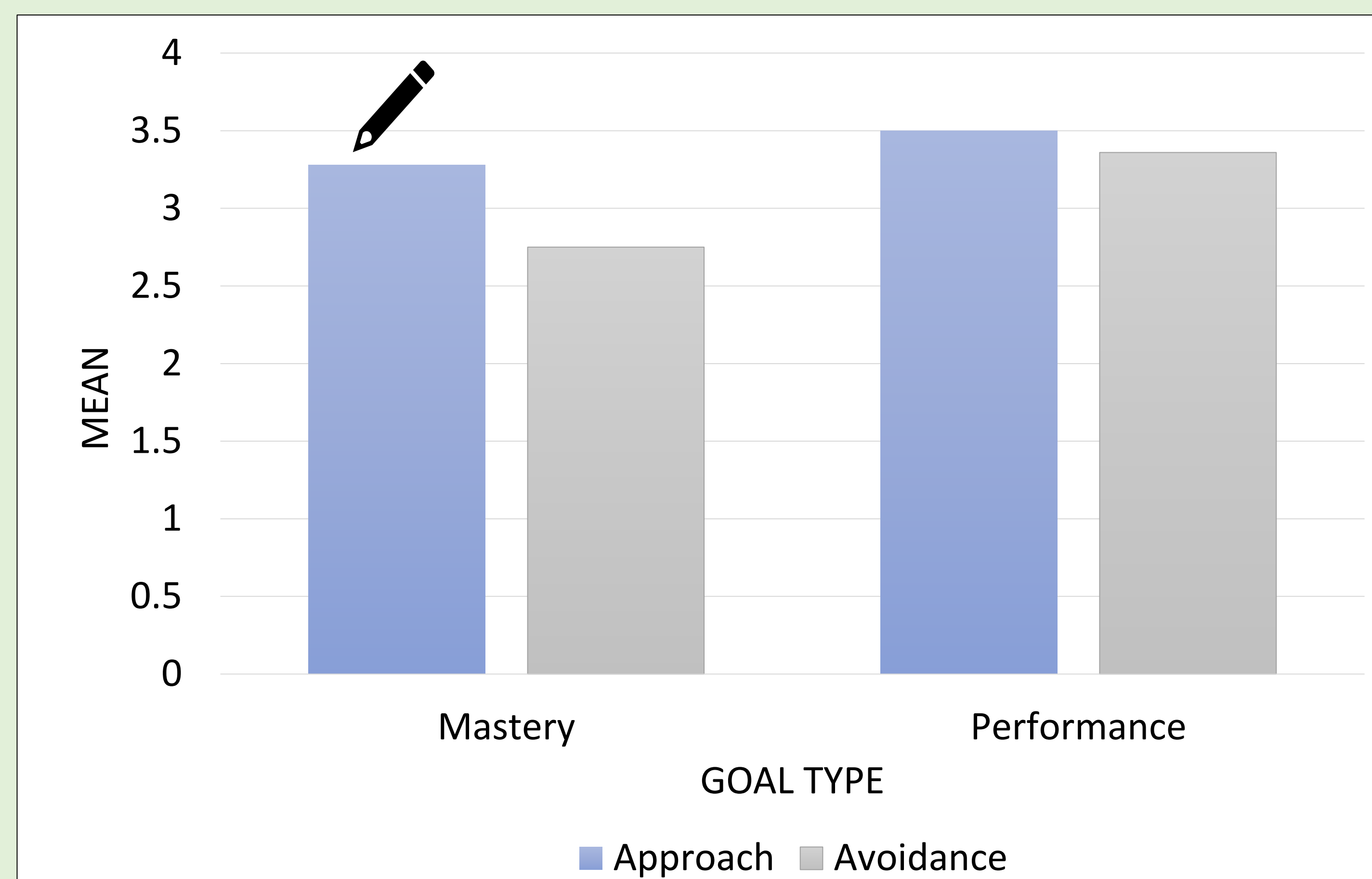


Figure 1. Interaction between Goal Type and Direction Type

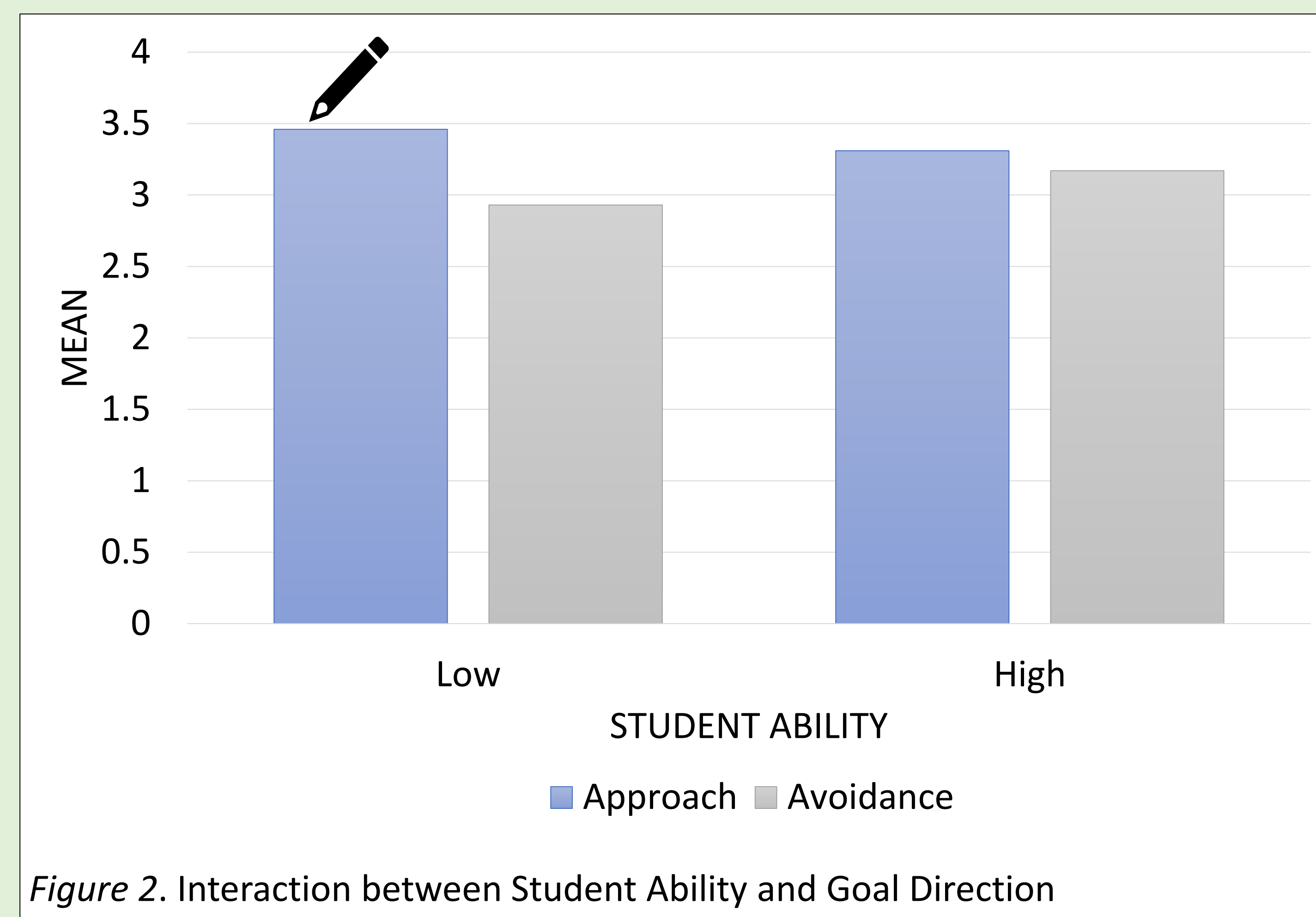


Figure 2. Interaction between Student Ability and Goal Direction

Results

A 2x2x2x2 mixed factorial ANOVA design was conducted on achievement goals.

Between-subjects variables:
 Condition (Competition, Control) and Ability (High, Low)

Within-subject variables:
 Type (Mastery, Performance) and Direction (Approach, Avoidance)

The hypotheses were not supported.
 None of the effects involving Condition were significant, $F_s < 2.17, p_s > .143$.

There was a significant main effect for Type.
 More students had Performance goals than Mastery Goals. $F(1, 125) = 15.11, p < .001$

There was a significant interaction between Type and Direction, $F(1, 125) = 9.34, p = .003$. (see Figure 1)

There was also a significant interaction between Ability and Direction, $F(1, 125) = 6.59, p = .011$. (see Figure 2)

Discussion

- Our study supports the research indicating that college students tend to have performance goals (Harackiewicz, Barron, Tauer, & Elliot, 2002), as most of the students in our study preferred performance goal type instead of mastery goal type.
- We found that college students with a goal type of mastery tended to take an approach direction instead of an avoidance direction, meaning they wanted to learn the material instead of simply avoiding mistakes.
- We also found that students with low ability preferred approach goal direction instead of avoidance goal direction, meaning they wanted to either learn the material or do better than others instead of avoiding mistakes or avoiding looking bad in front of others. College educators could eliminate the possibility of comparing results, so that lower ability students can revert to mastering the material.
- Even though we hypothesized that competition would affect the achievement goals of low and high ability students, our study showed that competition does not have that effect.
- Our study had limitations, including our lack of incentives to manipulate competition. Some sort of reward, such as extra credit, may have enticed the participants to take the activity seriously, as research has shown that college students respond well when receiving some type of reward after competition (Burleigh & Meegan, 2017).
- Even with limitations, our study still found that low ability students show a preference for approach directionality, meaning they strive to look or do better than others or themselves. And we further confirm that college students show performance achievement goals, meaning they do not strive to master the content, just to outperform themselves or others. It is worth noting, however, that when students did adopt mastery goals, they were more likely to demonstrate approach directionality, aiming to master the material in the passage for the sake of learning. This indicates that student learning at the collegiate level is not entirely performance-oriented for all students.

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