

## The influence of achievement goal orientation and gender on plagiarism

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*Abstract*

This investigation considered how male and female undergraduate students with different achievement goal orientation profiles view plagiarism. Thai student volunteers (N = 867) completed an achievement goal survey (Niemivirta, 1998) and a Dimensions of Plagiarism survey (Koul, 2007). Mixed analysis of variance showed several significant findings. First, students with a high performance orientation were substantially stricter than those with a low performance orientation across all dimensions of plagiarism. Second, low mastery oriented students were stricter regarding the “motive” dimension of plagiarism while high mastery oriented students were stricter regarding the “source” dimension of plagiarism. Lastly, significant differences between females and males were observed across the six factors of the Dimensions of Plagiarism survey. These results are interpreted within the framework of social comparison theory in respect to competitive learning environments.

**KEYWORDS:** Plagiarism, Achievement Goal Orientation

## 1. Introduction

Why do students do what they do? Why collaborate? Why help others? Why cheat? Why plagiarize? The focus of this investigation is plagiarism. Achievement goal theory provides a lens and a set of tools (Midgley, Kaplan, & Middleton, 2001; Midgley & Urdan, 2001) which we use to examine plagiarism within a Thai educational context.

Firstly, what is plagiarism? From a western point of view, plagiarism is a form of classroom cheating by lying to take credit for another's intellectual work; it is also a form of theft. But this definition is not so clear from an eastern viewpoint. Edward Hall (1976) has described eastern cultures (including much of the Middle East, Asia, Africa, and South-America) and western cultures (including North America and much of the Europe) using the idea of "context" which refers to the framework, background, and surrounding circumstances in which an event takes place. Western societies are generally low context societies—people play by external rules and decisions are based on logic, facts, and directness. Eastern societies are generally high context societies—people exhibit a strong emphasis on relational concerns and decisions are based on personal face-to-face relationships. Nisbett, Peng, Choi, & Norenzayan (2001) have suggested that the differences between westerners and easterners may be explained by the fact that people in these societies are socialized into different worldviews, cognitive processes and habits of mind. In this respect, westerners are likely to have an "individualistic orientation" and tend to use rules and categories as a basis for organizing the events in their environment (analytic worldview). Easterners are likely to have a "relationship orientation" and tend to organize their world in terms of relationships among events in their environment (holistic worldview). For example, Thai society is a high context, "relationship

orientated” society in which there is a strong cultural motive to maintain reciprocity (called *Bunghun* in Thai, which means being constantly aware and conscious of the benefit of both giving and receiving favors (Komin, 1991)). In a “relationship oriented” society, social comparisons (what others think of oneself and how others act in relation to oneself) are a significant cultural motive.

A food as information metaphor may help to clarify cultural differences regarding attitudes towards plagiarism. During a cross-cultural pre-service training exercise on classroom cheating for Peace Corps teachers, a trainer brings a big steaming bowl of popcorn into the training room midway through the session and proceeds to eat it in front of everyone, but not sharing it. It smells wonderful and the trainer openly gloats in having it all to himself. Of course, everyone’s attention turns to this. One individual comments that not sharing the popcorn is rude. Likewise, isn’t not sharing a test answer with your best friend also rude? Another comments that if you have plenty of popcorn, more than you can eat alone, why not share it? If popcorn was information, and you have lots of it, and it costs nothing to give it away, then why not give it away, especially to your friends, family, and clan? In most cultures the aged are respected because of their freely given knowledge and wisdom are a resource for the community at large.

After the trainees have talked for a while, the trainer offers to sell popcorn to them kernel by kernel. Someone comments that this is worse than rude. Someone else contends that if information is, in fact, a commodity like the popcorn that is owned and hoarded by an individual, then selling it bit by bit is a right of ownership. Isn’t that so? Ong (1982) points out that a primary oral culture depends on a common shared store of information. The western view of information as a commodity did not exist until after the printing

press was invented around 1450, then western culture allowed typography to make the word into a commodity.

A belief that we have more ownership of information than we have paid for (perhaps not by the letter of the law, but through the spirit of it) may influence attitude. Close or distant personal relationship is likely to be a factor in what is regarded as plagiarism. We may expect friends to share information but we would not necessarily expect strangers to do so. If the need is regarded as great enough, theft is sometimes allowed. The motive matters when describing plagiarism. And as a result of the primacy of relationship orientation, motives may be especially critical to personal attitudes towards plagiarism in eastern cultures.

Whether copying is regarded as plagiarism is influenced not only by *motive*, but also the particular *source* of the material. The concept of plagiarism requires that there be an 'author' from whom the material is copied. Having a relationship with that author, for example a close friend or confidant versus an unknown or distant expert or source, has implications for whether the act of copying is regarded as plagiarism. Depending on how you view the act you might, for example, 'borrow' from a friend but not from a stranger. Also, students who would plagiarize would likely consider the cost/benefit of each action. Thus 'source' is likely to be a factor in determining whether plagiarism has occurred or how severe the plagiarism is.

Current literature on plagiarism is generally western oriented and seems more practically oriented than theoretical. Instructors writing about plagiarism seem to view it more as a violation of trust and of relationship norms rather than as literal theft, and such writing is often emotionally charged. Institutionally, however, plagiarism is regarded as

theft and is handled much like property theft would be handled. In fact, plagiarism by academic faculty may be the only universal capital offense.

Anecdotal reports and a large assortment of university policy guides list various reasons for student plagiarism with examples and consequences. These documents are representative sources of information about why students plagiarize and what students believe about it (Starr, 2002; Pintrich, 2000; Midgley & Urdan, 2001). For example, Starr (2002) says:

One of the most common reasons students plagiarize is because they feel overwhelmed.... Students engage in plagiarism for a number of other reasons as well, including: fear of asking for help with assignments, difficulty in finding and analyzing research materials, belief that unfair or unsympathetic treatment from a professor justifies cheating, or they get trapped into searching for the "one right answer." Unfortunately, a small number of students plagiarize out of laziness or surrender to the mistaken notion that "buying" a paper is not any different than paying for an education. (p. 3)

Taking into consideration a broad sweep of "rationales" such as those excerpted above, a 23-item plagiarism survey outcome measure was developed for the investigation presented in this paper, with about half of the items addressing *motive* and about half addressing *source*. The factor analysis of this survey surfaced six factors that we refer to as "Dimensions of Plagiarism" that include three *Motive* factors – excuses, embarrassment, and a need to be correct; and three *Source* factors – known personal source, near instructional source, and distant instructional source.

## 2. Achievement Goal Orientation and Plagiarism

According to socio-cognitive theories, an individual's pursuit of a goal creates a framework for interpreting and responding to events that occur or may likely occur, producing associated patterns of cognition, affect, and behavior (Dweck & Leggett, 1988; Schunk, Pintrich, & Meece, 2008). Schunk, Pintrich, and Meece (2008) have described two achievement goal orientations: *A performance orientation*, which refers to a focus on how one's competence or ability will be judged relative to others, striving to be perceived as the best in the group, avoiding judgments of low ability or appearing stupid, and seeking public recognition; *A mastery orientation*, which refers to a focus on learning according to self-set standards, developing new skills, improving competence, trying to accomplish something challenging (p. 184). Students with performance orientation primarily focus on appearing to be the best in comparison with others; students with mastery orientation primarily focus on improving their own level of competencies.

Anderman and Midgley (2004) applied achievement goal theory to self-reported classroom cheating for students moving from 8<sup>th</sup> to 9<sup>th</sup> grade. They observed that moving to a relatively less mastery oriented classroom climate or to a relatively higher performance oriented classroom climate increases cheating behavior; while moving to a possible higher mastery oriented classroom climate decreases cheating behavior.

Plagiarism can be viewed as a kind of classroom cheating, and so Anderman and Midgley's (2004) findings for cheating may directly contribute to our understanding of plagiarism. As with cheating, intentional plagiarism, by western standards, is a maladaptive strategy, less likely to be observed in students with a high mastery orientation. Plagiarism could however be viewed as an adaptive strategy for an individual

with performance orientation whose goal is to maximize scores. From this perspective, plagiarism should be viewed more positively by individuals with a performance achievement goal orientation but negatively by individuals with a mastery achievement goal orientation (Anderman & Midgley, 2004).

National cultural norms set the boundaries which allow a range of possible classroom climates. If Thai cultural norms (e.g., *Bunghun*, relationship orientation, *kwam krong chai* loosely translated as consideration for others) and the resulting classroom climate support a particular goal orientation, then this should influence general attitudes towards what is considered to be plagiarism.

The analysis of data presented in this paper considers how several dimensions of plagiarism vary for males and females as a function of goal orientation. Following Pintrich's (2000) 'person-centered' analysis method, participants were grouped in a 2 X 2 matrix of performance and mastery achievement goal orientations using median split of the performance and mastery scores. The four groups established by this matrix are high-mastery/high-performance, high-mastery/low-performance, low-mastery/high-performance, and low-mastery/low-performance (see Table 1). These groupings allowed us to consider whether attitudes towards what constitutes plagiarism vary by achievement goal orientation profile and by gender.

### **3. Method**

#### *3.1 Participants*

The volunteer participants in this study were undergraduate students enrolled in a public university near Bangkok, Thailand. More than 98% of the responses to the survey



were complete. The final sample for analysis consisted of 867 students, 55.1% male and 44.9% female, mostly 3<sup>rd</sup> year students majoring in Industrial Education and Technology (category 11).

### *3.2 Dimensions of Plagiarism Survey Measure*

The Dimensions of Plagiarism survey questionnaire was developed in Thai by Koul (2007) by selecting from both specific and broad student “rationales” for plagiarism that have been mentioned in previous studies and examples from classroom experiences. The final survey consisted of 23 items that used a 5-point response scale from strongly disagree (1) to strongly agree (5). A larger value indicates the student is stricter about what constitutes plagiarism. Using the data collected in this investigation, principal components factor analysis with varimax rotation obtained six factors for the 23 items on the survey. The rotated component matrix sorted by the proposed factor name and the text of each item are shown in Table 1. Note that factors 1, 2, and 6 are *motive* factors and factors 3, 4, and 5 are *source* factors. Also note that Factor 6 is a hybrid factor with both a motive item (need to be correct) and a source item (international expert).

INSERT TALBE 1 HERE

### *3.3 Achievement Goal Orientation Measure*

The achievement goal orientation measure was based on the Finnish to English translation of an instrument that was developed and validated by Niemivirta (1998). Our instrument consisted of a translation of four “mastery” items and four “performance” items from English to Thai. The items used a 5-point scale from strongly disagree (1) to strongly agree (5), with larger values indicating a stronger orientation (i.e., no negatively worded items). After data collection, the factor analysis of these eight achievement goal items properly grouped into the four “mastery” and four “performance” oriented items.

Following the methodology of Harackiewicz, Barren, and Elliot (1998) who examined the effects of performance goals independently from the effects of mastery goals, we used orthogonal contrast of performance orientation compared with mastery orientation to examine multiple goal profiles (Midgley, Kaplan, & Middleton, 2001). Median split of mastery orientation (with 4 items and 20 maximum, low mastery is 16 and below and high mastery is 17 and above) and of performance orientation (with 4 items and 20 maximum, low performance is 13 and below and high performance is 14 and above) scores was used to separate students into low and high groupings creating four profiles: high mastery/high performance (hiM/hiP), high mastery/low performance (hiM/loP), low mastery/high performance (loM/hiP), and low mastery/low performance

(loM/loP). The median split resulted in relatively more students in the high/high and low/low profiles (see Table 2).

INSERT TABLE 2 HERE

#### 4. Results

The group averages on the Dimensions of Plagiarism survey are shown in Table 3 arranged according to the order determined by factor analysis (refer back to Table 1). These means from table 3 are also displayed in Figure 1. Noting that larger values means stricter attitude towards what acts are plagiarism, high performance oriented students (solid lines) are generally more strict across all dimensions of plagiarism than mastery oriented students (dashed lines), although loM/hiP students are stricter regarding excuses while hiM/hiP students are stricter regarding the 'source' for plagiarism.

INSERT TABLE 3 HERE

INSERT FIGURE 1 HERE

During factor analysis, SPSS was used to collapse the plagiarism items into their separate factor scores. These six factor score data were analyzed by mixed ANOVA with the between subjects factors of gender (male or female), mastery orientation (low or high, median split), and performance orientation (low or high, median split) and the repeated measure plagiarism factor score (see Table 4).

INSERT TABLE 4 HERE

Goal orientation was significant,  $F(1, 850) = 25.780$ ,  $MSe = 0.972$ ,  $p < .001$ , partial eta squared = 0.029. Students with a high performance orientation had larger scores (were stricter towards plagiarism) across all six dimensions relative to students with a low performance orientation (see Figure 2).

The interaction of Dimensions of Plagiarism and mastery orientation was also significant,  $F(5, 4250) = 2.641$ ,  $MSe = 0.995$ ,  $p = .02$ , partial eta squared = 0.003 (see Figure 3). Generally, low mastery students were stricter than high mastery students regarding “excuses” and “embarrassment” dimensions of plagiarism but were less strict when it comes to “source” dimension of plagiarism.

INSERT FIGURE 2 HERE

INSERT FIGURE 3 HERE

Also, the interaction of Dimensions of Plagiarism and gender was significant,  $F(5, 4250) = 2.472$ ,  $MSe = 0.995$ ,  $p = .03$ , partial eta squared = 0.003 (see Figure 4). Generally males were stricter than females regarding what is plagiarism.

INSERT FIGURE 4 HERE

Spearman correlation of achievement goal orientation factor scores and Dimension of Plagiarism factor scores with self reported grade point average are shown in Table 5. There was a weak significant correlation between GPA and mastery orientation. Also, known personal source and distant impersonal source Dimensions of Plagiarism factor scores were significantly and weakly related to GPA. Students with higher GPA scores were less strict regarding what they perceived as plagiarism.

INSERT TABLE 5 HERE

## 5. Discussion

Low context cultures emphasize a concern for whether something is rule-based, honest, correct, or accurate (Hall, 1976). High context cultures put more emphasis on whether something is fitting, suitable or proper, what Thais call *Maw* (Fieg, 1989). In our study, we found that Thai students' pay close attention to the contextual dimensions of plagiarism (source and motives) and their interpretation of what should be counted as plagiarism is guided by their sense of *Maw* within a specific context (here context means background and surrounding circumstances in which the event of copying by a student takes place). We found significant attitudinal differences between high mastery/high performance and low mastery/high performance students, suggesting that there are effects of multiple goals on attitudes towards acts of plagiarism. We also found that performance oriented students were more strict about what they consider to be plagiarism, and males were stricter than females. It should be noted, however, that students' affirmation of statements on a survey about attitudes may not reflect their own behavior.

Anderman and Midgley's (2004) findings about self-reported classroom cheating for students in USA moving from the 8<sup>th</sup> grade to the 9<sup>th</sup> grade suggest that the high performance orientation of Thai classrooms may create a climate that is conducive to acts that would be regarded as cheating or plagiarism in a western context.

Social comparison theory offers an additional way to interpret the results of our investigation (e.g., Taylor & Lovel, 1989; Wood, 1989). Social comparison theory postulates that humans have a drive to evaluate their opinions and abilities by comparing themselves with other people rather than to objective standards. Accordingly, "one's

satisfaction with life appears to depend less on objective circumstances than on how one stands in relation to others; if one is better off, one is happy” (Wood, 1989, p.233).

We found that performance oriented students were stricter about plagiarism. The “relationship orientation” of Thai students puts a higher value on self and in-group interests over other considerations reflecting an approach in which “principles, values, policies, and even agreements might not be upheld when weighed against personal relations, self and in-group interests” (Komin, 1991, p. 167). Since education is the primary way to move up the social ladder (higher prestige, higher salary), students may want to ‘level the playing field’ by preventing other students from gaining the top positions fraudulently or through short cuts. Therefore, a stricter attitude towards the engagement of others in acts of plagiarism may be a strategy that protects self-worth and self-interest (see Covington, 1992).

These results in our study support findings of previous research on the influence of learning environment on students’ interpersonal evaluations (Ames, 1981). Carol Ames (1981, p. 275) has concluded that a cooperative learning environment promotes *positivity* in the evaluation of others, in other words a convergence of evaluations of “self” and “others”. A competitive learning environment, on the other hand, promotes *negativity* in evaluation of others, in other words a highly divergent evaluation of oneself in relation to others. This may explain why performance oriented students, who are worried about their competition with others and who are themselves more likely to engage in cheating, were stricter in their evaluation of others regarding plagiarism.

Taylor and Lovel (1989) reviewed research on the cognitive underpinnings of social comparisons. Their analysis has implications for our investigation. They concluded

that comparisons are not purely social but can be cognitively manufactured to meet particular motives and goals (p. 569). This suggests that among high performance oriented students, a stricter evaluation of the behavior of cheating in others is underpinned by a motive such as a desire to “save face”. The motive is better served if one appears more virtuous than others.

Results of statistical analysis in our study were consistent with previous research that has shown that gender itself does not determine students’ achievement orientations but “gender effect” can shape how males and females interpret contexts in different ways (Dowson, McInerney, & Nelson, 2006; Ames, 1981). We found no statistically significant differences between males and females in terms of their overall achievement orientations (Mean score for males = 3.00, SD = 3.64; Mean score for females = 3.14, SD = 3.31,  $p = .558$ ). There were, however, significant differences in how males and females interpreted what is plagiarism and what should count as plagiarism. Generally, males relative to females were not inclined to see “excuses” as acceptable reasons to copy. Also males relative to females viewed copying from a distant source as plagiarism, although males and females had similar views regarding copying from close associates. On the other hand, females relative to the males did not accept the need to be correct as a reason to copy. These findings support the claim that in competitive achievement settings, males are generally self-serving and competitive while females are self-effacing and generous to others (see Ames, 1981).

Considering “motive” and “source” as two contextual and culturally dependent dimensions of plagiarism, our findings suggest that both “goal effect” and “gender effect” influence students’ interpretations of whether plagiarism has occurred or how severe the



plagiarism is. It should be noted that most researchers have suggested that *approach* goals (focus on attaining success) and *avoidance* goals (focus on the avoidance of failure) should be treated differently in terms of the *valence* of the competence because, for example, *performance approach* goals orient an individual to look good in comparison with others while *performance avoidance* goals orient an individual to avoid looking bad or stupid (Elliot & McGregor, 2001). Our study did not separate the influence of *performance approach* goals from the influence of *performance avoidance* goals because we found during the pilot testing phase that both *performance approach* items and *performance avoidance* items were interpreted similarly in the Thai language, grouping under a single factor. The results of our study are limited by the fact that the Dimensions of Plagiarism (Koul, 2007) instrument is new and it was applied for the first time in this investigation. The factor analysis of the Dimensions of Plagiarism survey obtained six reasonable factors, but it is likely that there are additional dimensions of plagiarism that should be considered. Future research should further conceptualize and validate this instrument.

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**Table 1**

## Dimensions of Plagiarism factor analysis

1	2	3	4	5	6	Dimensions of Plagiarism (shortened)	
0.81	0.19	0.13	0.10	0.07	-0.02	excuses alpha = .846	12. ... because he had been under stress
0.79	0.12	0.19	0.10	0.04	0.13		11. ... because he have had a heavy workload
0.77	0.14	0.08	0.10	-0.05	0.15		13. ... because he had too little time
0.71	0.10	0.18	0.03	0.20	0.03		10. ... because he had been sick
0.61	0.21	0.16	0.19	-0.11	0.14		14. ... because he had nothing to add
0.49	0.24	0.21	0.02	0.35	-0.02		9. ... because he was caring for his family
0.22	0.86	0.13	0.14	-0.01	0.13	embarrassment alpha = .877	22. ... so he/she won't look stupid in front of class
0.23	0.83	0.16	0.07	0.02	0.12		21. ... so he/she won't embarrass self in front of peers
0.26	0.81	0.13	0.08	0.14	0.03		23. ... so he/she won't embarrass his/her family
0.19	0.16	0.77	0.19	0.01	0.24	known personal source alpha = .793	17. ... from a good friend
0.19	0.12	0.76	0.10	0.13	0.14		16. ... from a senior student
0.19	0.22	0.59	0.16	-0.04	0.46		18. ... from a very intelligent student
0.26	0.01	0.55	0.29	0.21	0.00		8. ... from the members of his group
0.43	0.33	0.47	-0.06	0.12	-0.27		15. ... from someone whom he paid money
0.18	0.19	0.43	0.48	0.19	-0.21		4. ... from another student
0.09	0.15	0.15	0.82	0.02	0.00	near impersonal source alpha = .793	1. ... from a textbook
0.12	-0.02	0.18	0.76	0.15	0.19		2. ... from the material provided by the teacher
0.10	0.11	0.08	0.74	0.25	0.11		3. ... from a web-site
0.14	0.06	0.10	0.16	0.73	-0.09	distant impersonal source alpha = .656	7. ... from an unknown source
-0.03	0.05	0.10	0.20	0.73	0.26		5. ... from a local expert
0.02	-0.12	0.00	0.40	0.51	0.45		6. ... from a library resource
0.13	0.14	0.10	0.12	0.00	0.77	need to be correct alpha = .574	20. ... to get the right answer
0.14	0.11	0.25	-0.02	0.37	0.61		19. ... from an international expert

**Table 2**

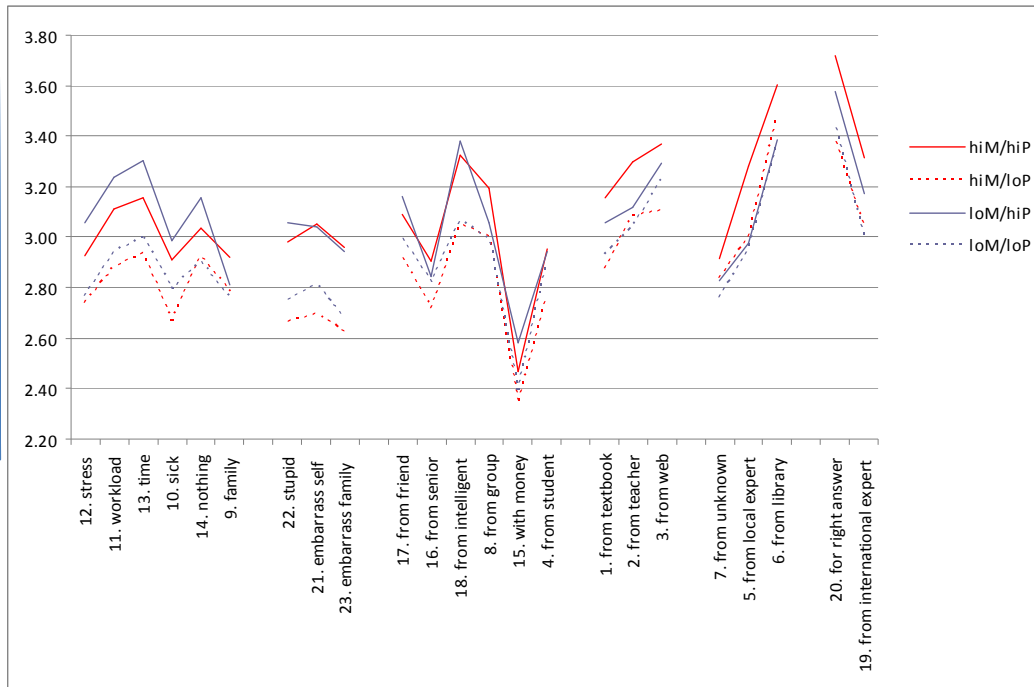
Group sample sizes.

<u>Profile</u>	<u>female</u>	<u>male</u>	<u>total</u>	<u>female</u>	<u>male</u>
hiM/hiP	107	133	240	44.6%	55.4%
hiM/loP	82	104	186	44.1%	55.9%
loM/hiP	89	112	201	44.3%	55.7%
loM/loP	111	129	240	46.3%	53.8%
Total	389	478	867	44.9%	55.1%

**Table 3**

Means and standard deviations for each item in the Dimension of Plagiarism survey are arranged according to the order determined by factor analysis

	hiM hiP n = 240		hiM loP n = 186		loM hiP n = 201		loM loP n = 240		
	mean	sd	mean	sd	mean	sd	mean	sd	
12. ... because he had been under stress	2.93	1.14	2.74	1.14	3.06	0.98	2.77	0.94	excuses alpha = .846
11. ... because he have had a heavy workload	3.11	1.17	2.88	1.08	3.24	0.92	2.94	0.88	
13. ... because he had too little time	3.15	1.18	2.94	1.19	3.30	1.01	3.00	1.05	
10. ... because he had been sick	2.91	1.14	2.67	1.09	2.99	0.99	2.80	0.94	
14. ... because he had nothing to add	3.03	1.11	2.92	1.12	3.15	0.90	2.90	0.94	
9. ... because he was caring for his family	2.92	1.13	2.78	1.12	2.81	0.95	2.76	0.96	
22. ... so he/she won't look stupid in front of class	2.98	1.12	2.67	1.24	3.06	1.09	2.75	0.99	embarrassment alpha = .877
21. ... so he/she won't embarrass self in front of peers	3.05	1.09	2.70	1.17	3.04	1.04	2.81	1.01	
23. ... so he/she won't embarrass his/her family	2.96	1.23	2.62	1.30	2.94	1.21	2.68	1.08	
17. ... from a good friend	3.09	1.12	2.92	1.07	3.16	0.95	3.00	0.91	known personal source alpha = .793
16. ... from a senior student	2.90	1.06	2.72	1.08	2.85	0.96	2.82	0.95	
18. ... from a very intelligent student	3.33	1.12	3.05	1.10	3.38	0.96	3.07	0.96	
8. ... from the members of his group	3.19	1.06	3.01	1.07	3.05	0.89	2.99	0.91	
15. ... from someone whom he paid money	2.47	1.21	2.34	1.25	2.58	1.17	2.40	1.04	
4. ... from another student	2.95	1.06	2.77	1.07	2.95	0.97	2.90	0.90	
1. ... from a textbook	3.16	1.05	2.88	1.06	3.06	0.90	2.93	0.92	near impersonal source alpha = .793
2. ... from the material provided by the teacher	3.30	1.08	3.09	1.03	3.12	0.93	3.04	0.90	
3. ... from a web-site	3.37	1.08	3.11	1.05	3.29	0.94	3.23	0.85	
7. ... from an unknown source	2.92	1.04	2.84	1.11	2.83	1.01	2.76	0.96	distant impersonal source alpha = .656
5. ... from a local expert	3.28	1.07	2.99	1.02	2.98	0.91	2.95	0.92	
6. ... from a library resource	3.60	1.09	3.48	1.06	3.38	1.00	3.37	0.94	
20. ... to get the right answer	3.72	1.07	3.38	1.19	3.58	0.98	3.43	0.97	need to be correct alpha = .574
19. ... from an international expert	3.31	1.05	3.04	1.09	3.17	1.02	3.00	0.94	



**Figure 1**

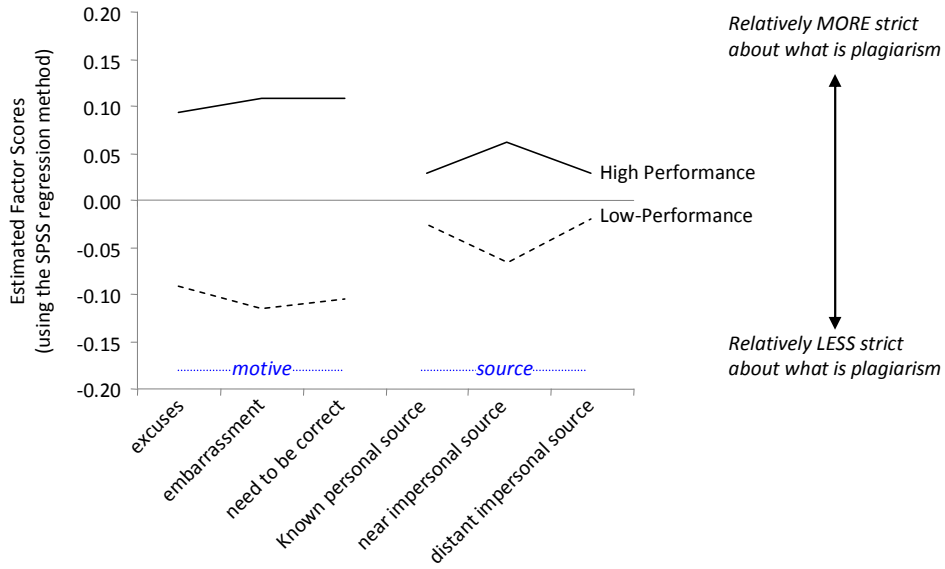
A chart of the item means from Table 3 arranged according to the order determined by factor analysis.



**Table 4**

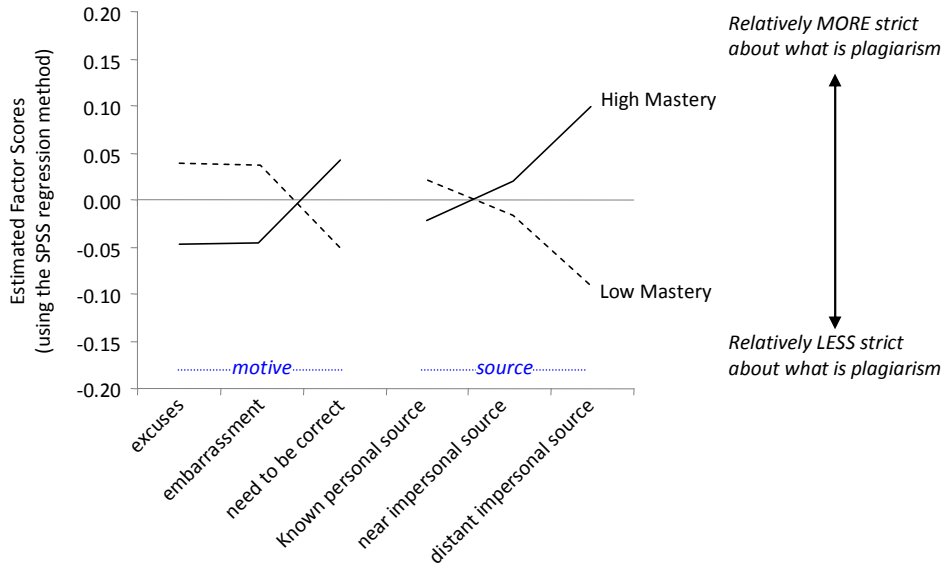
Mixed ANOVA of the Attitudes towards Plagiarism factor scores.

<u>Source</u>	<u>Type III SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Sig.</u>	<u>Partial Eta Squared</u>
Intercept	0.208	1	0.208	0.214	0.644	
Sex	2.673	1	2.673	2.749	0.098	
Mastery (M)	0.380	1	0.380	0.391	0.532	
Performance (P)	25.060	1	25.060	25.780	0.000 *	0.029
Sex * M	0.119	1	0.119	0.122	0.727	
Sex * P	0.037	1	0.037	0.038	0.845	
M * P	1.358	1	1.358	1.397	0.238	
Sex * M * P	0.346	1	0.346	0.356	0.551	
Error	826.280	850	0.972			
Tests of Within-Subjects Effects (Sphericity Assumed)						
Plagiarism (6 levels)	0.094	5	0.019	0.019	1.000	
Plagiarism * Sex	12.299	5	2.460	2.472	0.030 *	0.003
Plagiarism * M	13.137	5	2.627	2.641	0.022 *	0.003
Plagiarism * P	9.357	5	1.871	1.881	0.094	
Plagiarism * Sex * M	7.267	5	1.453	1.461	0.199	
Plagiarism * Sex * P	7.486	5	1.497	1.505	0.185	
Plagiarism * M * P	3.398	5	0.680	0.683	0.636	
Plagiarism * Sex * M * P	3.832	5	0.766	0.770	0.571	
Error (Plagiarism)	4228.113	4250	0.995			



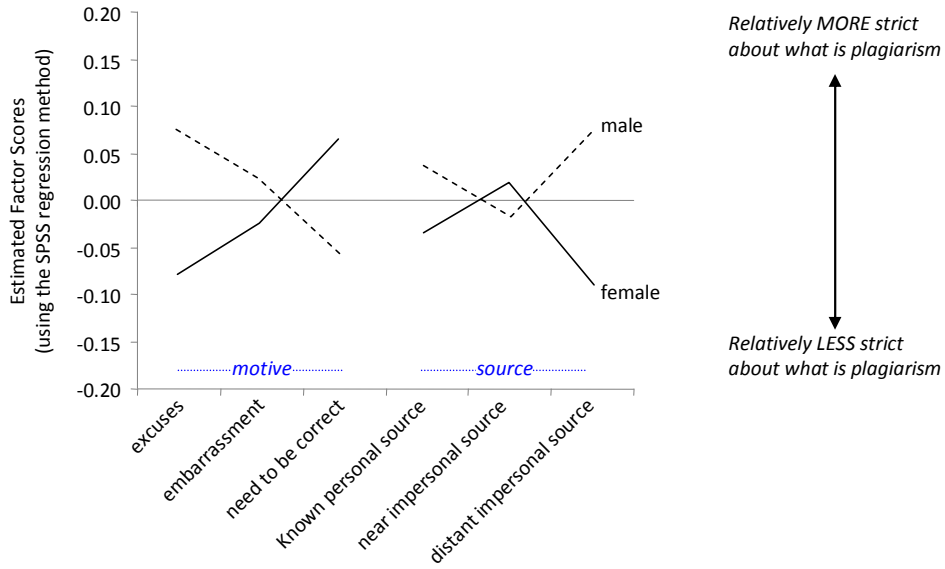
**Figure 2**

Performance orientation and Dimensions of Plagiarism.



**Figure 3**

Significant interaction of mastery orientation and Dimensions of Plagiarism.



**Figure 4**

Significant interaction of gender and Dimensions of Plagiarism.

**Table 5**

Spearman correlations of the achievement goal and plagiarism factors (factors derived by SPSS) and GPA.

Spearman's rho

	<u>GPA</u>	<u>Perf.</u>	<u>Mast.</u>	<u>P1</u>	<u>P2</u>	<u>P3</u>	<u>P4</u>	<u>P5</u>	<u>P6</u>
Performance oriented	-0.01	(.80)							
Mastery oriented	<b>0.08</b>	-0.04	(.64)						
P1 – excuses	0.02	<b>0.11</b>	-0.04	(.85)					
P2 – embarrassment	-0.06	<b>0.15</b>	-0.05	<b>0.10</b>	(.88)				
P3 – known personal source	<b>-0.11</b>	0.04	0.00	0.01	<b>0.08</b>	(.79)			
P4 – nearby impersonal source	-0.02	<b>0.12</b>	0.00	0.01	0.03	0.02	(.79)		
P5 – distant impersonal source	<b>-0.12</b>	0.03	<b>0.09</b>	0.01	0.03	0.03	-0.02	(.66)	
P6 – need to be correct	0.03	<b>0.13</b>	<b>0.07</b>	0.02	0.00	0.02	0.01	0.00	(.57)

*Cronbach alpha reliability in parenthesis rho >.10 is significant at the 0.01 level (2-tailed). rho from .07 to .10 is significant at the 0.05 level (2-tailed). GPA n = 812, all others n = 867 (55 GPA scores missing)*