University of Twente

Personality and achievement goals

Relating the HEXACO Personality Factors to the 3 x 2 Achievement Goal Model.

Key words: HEXACO, personality, achievement goals, 3 x 2 achievement goal model

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Summary

Developments in the personality research as well as in the achievement goals research, created a gap in research trying to relate both fields as there is no research relating the latest two models. The aim of the current research is to add knowledge in order to fix this research gap by relating the HEXACO personality model to the 3 x 2 achievement goals model.

The research question in this study is: What is the relationship between the HEXACO personality traits, and the six dimensions of the 3 x 2 achievement goals of high school and pre-university students in The Netherlands? 248 students voluntary completed the HEXACO SPI (1-5 point Likert scale) and a translated version of the achievement goals model (1-7 points Likert scale) are used.

A confirmatory factor analysis has been conducted to test validity of the tests. To inspect the relations of the HEXACO domains with achievement goals, correlational analyses have been conducted. Weak significant relations are found, which are comparable to previous research. Limitations of this research and suggestions for further research are mentioned.

Introduction

To relate personality traits and goals, researchers have proposed different theories. According to McCabe, Van Yperen, Elliot and Verbraak (2013), many theories advocate a causal process, in which personality traits cause different types of goal pursuit, other theories propose that both traits and goals are independent but critical concepts of personality. Chen and Zhang (2011) found the construct of personality to be an important predictor for achievement goals. However, research how to connect the personality traits and achievement goal concepts the best way will continue (McCabe et al., 2013).

A very influential personality model is the Big Five. This one has been revised and at this moment, the HEXACO model for personality is the most up to date model. For achievement goals several models have been tested in research. The 2 x 2 achievement goals model seemed to fit, but according to Elliot et al. (2011) the Mastery goal (in which the purpose is to develop competence and task mastery) contains two different standards for evaluation: Task-based and Self-based. By splitting up the Mastery goal, they come up with a 3 x 2 achievement goal framework. Diverse research has been conducted trying to relate personality traits and achievement goals, by use of both the Big Five model and the HEXACO model, but with previous versions of the achievement goals model. This means, there is a gap in knowledge about the relations between personality traits and achievement goals. The aim of this research is to add knowledge to fill in this gap by using the most recent models of both fields.

This research may not only add to the knowledge about the relationship of achievement goals to personality, but also help educators, parents and students to better understand the influence of certain individual differences, such as personality, on achievement goals. According to Chen and Zhang (2011) parents and educators can use such knowledge to create appropriate family and/or classroom climate to match and cultivate those personality characteristics in students. Meanwhile, with the information, students can also adjust themselves to be more approaching, flexible, extraverted, persistent and self-controlled, which is helpful in developing adaptive achievement goals.

Theoretical background

Personality

Personality has several definitions, which are very similar (Mayer, 2007a). Some definitions are:

> *"Personality can be defined as the intraindividual organization of experience and behavior"* (Asendorpf, 2002. p. S1)

> *"Personality refers to an individual's characteristic patterns of thought, emotion, and behavior, together with the psychological mechanisms – hidden or not – behind those patterns*" (Funder, 2013. p. 5)

> *"Personality is the organized, developing system within the individual that represents the collective action of that individual's major psychological subsystems"* (Mayer, 2007b. p. 10)

To get a clear vision of the personality traits, words in a dictionary with respect to characters have been counted with the idea "the more important, the more countries will have a word for it" (De Vries, Ashton & Lee, 2009). This method is known as the Lexical method. This research in different countries has led to the five most important personality traits: Extraversion, Agreeableness, Emotional stability, Conscientiousness and Openness to experience. These five traits are also well known as the 'Big Five' (Goldberg, 1981). This Big Five model has been used a lot and is still a well-known model in research.

Even though this Big Five model is still used in research, reanalyzing the lexical research in ten languages made clear that not five but six cross-cultural corresponding personality traits can be distinguished, which led to the HEXACO model (Ashton and Lee, 2001; De Vries et al., 2009). Lee, Ogunforwora and Ashton (2005) conclude that the HEXACO model appears to incorporate some important personality traits that are less well accommodated in the Big Five model.

The sixth dimension which can be distinguished is the Honesty humility dimension. Next to this addition, Agreeableness and Emotional stability have been reoriented. Whereas Emotion stability in the Big Five model has to do with harshness, irritability and composure, these are not seen in the Emotionality dimension of the HEXACO model, but they are moved to Agreeableness. Emotionality in the HEXACO model is characterized by vulnerability, sentimentality, independence and boldness. (De Vries et al., 2009). Extraversion, Conscientiousness and Openness to experience are practically the same (De Vries et al., 2009; Ashton, Lee & De Vries, 2014).

The scales consist of four facets per dimension (Lee and Ashton, 2015). Honesty humility (H) contains the facets sincerity, fairness, greed avoidance and modesty. Emotionallity (E) is about fearfulness, anxiety, dependence and sentimentality. Extraversion (X) contains social self-esteem, social boldness, sociability and liveliness. Agreeableness (A) contains the facets forgivingness, gentleness, flexibility and patience. Conscientiousness (C) is about organization, diligence, perfection and prudence. Openness to experience (O) contains aesthetic appreciation, inquisitiveness, creativity and unconventionality.

With a bit caution, De Vries et al. (2009) stated that not only Conscientiousness, but also Honesty humility seems to be important in predicting study achievement. This means, by adding the Honesty humility dimension, the HEXACO model can be a better predictor of study achievements than the Big Five model.

Achievement goals

Achievement goals can be defined as the kind of goals (purposes or reasons) that direct achievement-related behaviors (Maehr & Zusho, 2009). According to Maehr and Zusho (2009), researchers on the topic of achievement goals are focused on why individuals have their goals (e.g. to outperform others), instead of what individuals are trying to achieve (e.g. get a good grade).

In the 1970s and 1980s the achievement goal construct was developed by several researchers (Ames 1984; Dweck, 1986; and Nicholls, 1984). According to Elliot et al. (2011), the conceptualizations of

the offered theorists were similar enough to be referred to together as 'the dichotomous achievement model'. In this framework, distinctions were made between Mastery goals and Performance goals. For Mastery goals, the purpose is to develop competence and task mastery, whereas Performance goals are to demonstrate competence (usually normative competence) (Elliot, et al., 2011).

In 1999, Elliot argued to distinguish Approach and Avoidance motivation, which differ as a function of valence. Valence is the intrinsic attractiveness or aversiveness which events, objects and situation may possess (Frijda, 1986). In approach motivation, behavior is instigated or directed by a positive or desirable event or possibility, whereas in avoidance motivation, behavior is instigated or directed by a negative or undesirable event or possibility (Elliot, 1999). Approach and Avoidance were first only used for Performance goals, which led to the Trichotomous framework, in which three goal constructs are distinguished: Mastery, Performance approach and Performance avoidance (Elliot, 1999).

Approach-based goals focus on success, and regulation entails trying to move toward or maintain this positive possibility. Using success as the hub of regulatory activity evokes and sustains hope, eagerness, and excitement, as one is consistently reminded of the possibility of success (Elliot et al., 2011). Avoidance-based goals focus on failure, and regulation entails trying to move away or keep away from this negative possibility (Elliot et al., 2011).
The idea for a 2 x 2 achievement goals model was offered by Elliot (1999) and tested by Elliot and McGregor (2001). In this model, the Mastery goal is also bifurcated, which means there are four goal constructs: Mastery approach, Mastery avoidance, Performance approach and Performance avoidance. Results from the studies by Elliot and McGregor (2001) provided strong support for this 2 x 2 model.

As mentioned earlier, for Mastery goals it is the purpose to develop competence and task mastery. According to Elliot et al. (2011) this contain two different standards for evaluation: Task-based and Self-based. By splitting up the Mastery goal, they come up with a 3 x 2 achievement goal framework with six goal constructs: Task approach, Task avoidance, Self approach, Self avoidance, Other approach and Other avoidance. 'Other based' is the same as 'Performance' in previous models. See figure 1 for examples of the different goals constructs.

Figure 1

The 3 x 2 achievement goal model.

		Definition		
		Absolute (Task)	Intrapersonal (Self)	Interpersonal (Other)
Valence	Positive (approaching success)	Task approach goal (e.g., "Do the task correctly"),	Self approach goal (e.g., "Do better than before")	Other approach goal (e.g., "Do better than others")
	Negative (avoiding failure)	Task avoidance goal (e.g., "Avoid doing the task incorrectly")	Self avoidance goal (e.g., Avoid doing worse than before"),	Other avoidance goal (e.g., "Avoid doing worse than others")

Task-based goals use the absolute demands of the task (e.g., getting an answer correct, understanding an idea) as the evaluative referent. For these goals, competence is defined in terms of doing well or poorly relative to what the task itself requires.

Self-based goals use one's own intrapersonal trajectory as the evaluative referent. Thus, for these goals, competence is defined in terms of doing well or poorly relative to how one has done in the past or has the potential to do in the future.

Other-based goals use an interpersonal evaluative referent. For these goals, competence is defined in terms of doing well or poorly relative to others.

David (2014) and Elliot et al. (2011) found support for the separation of Task-based and Self-based goals among students. According to Elliot et al. (2011), and Wu (2012) the 3 x 2 model is a better fit to the data than the previous models. While David (2014) and Elliot et al. (2011) found support for the separation, their results are not the same. The Filipino students in the study of David (2014) have higher mean scores in Self-based goals, whereas the German and American students in the study of Elliot et al. (2011) have higher mean scores on Task based goals. This can be a clue to cultural differences in achievement goals (David, 2014). According to Chen and Zhang (2011), it seems that no matter which culture an individual lives in, developing abilities (Task and Self) and/or demonstrating abilities relative to others both are the standards that he or she adopts to evaluate his or her competence. The approach-avoidance distinction reflects how competence is valued. Approaching positive possibilities and avoiding negative possibilities seem similar for individuals to motivate themselves in different cultures (Chen & Zhang, 2011).

The strong positive correlation between Task-based and Self-based goals seems to suggest that Task-based and Self-based goals may not be differentiated (David, 2014). Elliot et al. (2011) found a strong correlation between these goals as well. They argue that the use of similarly worded items in the 3 × 2 AGQ may have prompted response sets that inflated the inter correlations among the goal variables. Murayama, Elliot, and Yamagata (2011) argue that variables measured with items containing significant semantic overlap tend to be correlated.

Relations between personality and achievement goals

Several researchers related personality to achievement goals. McCabe et al. (2013) and Chen and Zhang (2011) used the Big Five model and the 2 x 2 achievement goals model, Dinger et al. (2015) related the HEXACO model to the trichotomous achievement goals framework. Their findings will be discussed below.

Big Five & 2 x 2 model

To link the Big Five personality traits to achievement goals, McCabe et al. (2013) used the NEO-Five Factor Inventory to measure Big Five personality traits and the 2 x 2 AGQ-Revised (by Elliot & Murayama, 2008) to test achievement goals. The study has been conducted among 276 students from the U.S. who were taking an introductory level psychology course.

In their results, Mastery approach goals are positively related to Extraversion (.16), Agreeableness (.14) and Conscientiousness (.32). Mastery avoidance goals are positive related to Neuroticism (.15), Extraversion (.13) and Conscientiousness (.11). Performance approach goals have a positive relation with Neuroticism (.15) and Conscientiousness (.13) and a negative relation with Agreeableness (-.10).

Performance avoidance goals are found to have a positive relationship to Neuroticism (.21) and a negative relationship with Openness to experience (-.16) and Agreeableness (-.11).

Agreeableness was positively related to Mastery approach goals and negatively to Performance approach goals. According to McCabe et al. (2013) this trait may explain why people choose to adopt one of these goals; Mastery approach goals are connected to more cooperative and help-seeking behavior, while Performance approach goals are connected to more competitive behavior and a greater proneness to engage in cheating behavior.

Chen and Zhang (2011) compared the same models in studies of 775 high school students (age ranges from 11.75 to 19 years) in China. The results are in general comparable with the research of McCabe et al. (2013). All personality traits are positively related to Mastery approach, except for neuroticism (-.21). Students with high Neuroticism are emotionally unstable and easily experience negative feelings, which makes them more likely to avoid demonstration of incompetence (Performance avoidance goals, .17) and avoid failing in learning (Chen and Zhang, 2011). The explanation for the relation between Agreeableness and Mastery approach goals (.18) and Performance avoidance goals (-.15) is the same as McCabe et al. (2013) gave.

Whereas McCabe et al. (2013) did not find any significant relationship between Openness to experience and Mastery approach, Chen and Zhang (2011) found a positive relation of .39. According to Chen & Zhang (2011), this sounds logical, with the reasoning that students high in Openness to experience are intellectually curious and willing to enjoy novel ideas. The negative relation (-.11) to Performance avoidance goals show that individuals who are curious about the world are less likely to adopt the goals that aim at avoiding the demonstration of incompetence relative to others (Chen and Zhang, 2011). Conscientiousness is about being organized, purposeful and self-controlled. According to Chen and Zhang (2011), these characteristics benefit learning and aim for all achievement goals. In this study, it is positively related to Mastery approach (.46), Mastery avoidance (.22) and Performance approach (.26). Extraversion is positively related to Mastery approach (.28), Mastery avoidance (.14) and Performance approach (.18).

HEXACO & trichotomous framework

Dinger et al. (2015) aimed to relate the HEXACO model to the trichotomous framework of achievement goals. This is remarkable because they choose to use an earlier achievement goal model than McCabe et al. (2013) and Chen and Zhang (2011) did, while they use the latest personality trait model. In this trichotomous achievement goals model, Mastery goals are not bifurcated. Their participants were 173 high school students.

Honesty humility accounted for substantial proportions of variance in achievement goals. Students high in Honesty humility are more concerned about developing their competence (Mastery, .32) and less with demonstrating their competence (Performance approach, -.16) and hiding deficiencies (Performance avoidance, -.33) which probably will come with strategies which are opposed to honesty humility, such as cheating, manipulating others and breaking rules. Striving to demonstrate seems to be incompatible with the Honesty humility aspect (Dinger et al. 2015).

Emotionality seems to be of little importance in the prediction of achievement goals. Other outcomes were expected, based on the Neuroticism aspect of the Big 5 model in earlier research. Emotionality is more positive than Neuroticism. Emotionality refers to intra-personal, emotional

content, but not to interpersonal social aspects. Students high in Emotionality are appealed by self-based standards of competence in schools. The relation between Emotionality and Mastery is .18. Extraversion is positively related to Mastery (.20) and negatively to Performance avoidance (-.24). Agreeableness is negatively related to Performance approach (-.17) and Performance avoidance (-.18). Results related to Conscientiousness are comparable with other research as well. It is the strongest predictor for Mastery goals (.41) and Performance approach goals (.26).

The positive findings among Openness to experience and Mastery (.36) are in line with their expectations and with results presented before. The positive relation to Performance approach (.18) is unexpected. According to Dinger et al. (2015) it might be that students with high Performance approach goals are interested in showing their competence or being better than others because they want to share their ideas or want to bring the lessons to another level.

Based on their study, Dinger et al. (2015) conclude that the substantial relations between Honesty humility and achievement goals clearly corroborate the general usefulness of the HEXACO model – even beyond the Big Five model – for understanding, how personality is related to achievement goals.

To our knowledge, no research trying to relate the latest version of the achievement goals model (3 x 2) to personality traits has been conducted yet. Existing research did not relate the previous achievement goals model (2x2) to the latest personality traits model (HEXACO) either. This means, there is a gap in knowledge about the relations between personality traits and achievement goals. The aim of this research is to add knowledge to fill in this gap.

Research question

The central research question in this study is: what is the relationship between the HEXACO personality traits and the 3 x 2 achievement goals of high school and pre-university students in The Netherlands?

To answer this question, correlations between all six HEXACO traits (Honesty humility, Emotionality, Extraversion, Agreeableness, Conscientiousness and Openness to experience) and the six achievement goals (Task approach, Task avoidance, Self approach, Self avoidance, Other approach and Other avoidance) will be measured.

Hypothesis

Hypothesis are formulated based on the research by Chen and Zhang (2011), Dinger et al. (2015) and McCabe et al. (2013). Because of the differences between the Big 5 model and the HEXACO model, it is noteworthy to mention that Conscientiousness, Extraversion and Openness to experience, are comparable between the Big Five model and the HEXACO model. The hypothesizes are sorted by personality trait. To get a clear overview, positive and negative expected results are summarized in table 1.

Table 1

Summary of expected positive and negative correlations

	Achievement goals					
	Self		Task		Other	
Personality traits	approach	avoidance	approach	avoidance	approach	avoidance
Honesty humility (H)	+ [2]		+ [2]		- [1]	- [1]
Emotionally (E)						
Extraversion (X)	+ [3]	+ [3]	+ [3]	+ [3]	+ [4]	- [5]
Agreeableness (A)					- [6]	- [6]
Conscientiousness (C)	+ [7]	+ [7]	+ [7]	+ [7]	+ [7]	
Openness to experience (O)	+ [8]	+ [8]	+ [8]	+ [8]		- [9]

Note. Hypotheses are based on research of Chen and Zhang (2011), Dinger et al. (2015) and McCabe et al. (2011).
[1, 2, 3, 4, 5, 6, 7, 8, 9]. Hypothesis number

McCabe et al. (2013) found a negative relation between Agreeableness and Performance approach. They explained this with greater proneness to engage in cheating behavior. In the HEXACO model, cheating behavior is part of Honesty humility instead of Agreeableness. Because of this, and the findings of Dinger et al. (2015) a negative relation between Honesty humility and Other approach and Other avoidance goals in the 3 x 2 achievement goals model is expected (hypothesis 1). Students with high Honesty humility are more concerned about their developments and Dinger et al. (2015) found a positive relation to Mastery (in the trichotomous framework), so a positive relation is expected between Honesty humility and Self approach and Task approach (hypothesis 2).

No hypothesis is formulated about Emotionality, because Dinger et al. (2015) found only a small relation (.18) to Mastery, and no separation is made between approach or avoidance. In the Big Five model used by McCabe et al. (2013) and Chen & Zhang, 2011, there is no Emotionality in the way it is in the HEXACO model.

Extraversion is expected to relate positively to all Mastery aspects (Task and Self and approach and avoidance) (hypothesis 3), because the previous research show positive relations with Mastery avoidance as well as Mastery approach (Chen & Zhang, 2011). A positive relation to Other approach is expected as well (hypothesis 4), because of the positive findings to Performance approach in research by Chen and Zhang (2011). Dinger et al. (2015) found a negative relationship to Performance avoidance, so a negative relation to Other avoidance is expected in the 3 x 2 achievements goal model (hypothesis 5).

A negative relation between Agreeableness and Other approach and Other avoidance is expected (hypothesis 6), because of findings by Dinger et al. (2015). Because Agreeableness in the Big 5 and in the HEXACO model are not comparable (Ashton & Lee, 2007; De Vries et al., 2009), no hypothesis based on the positive relation to Mastery approach in research by McCabe et al. (2013) and Chen and Zhang (2011) is made.

About the positive relations between Conscientiousness and Mastery (avoidance and approach) and Performance approach, McCabe et al. (2011), Chen and Zhang (2013) and Dinger et al. (2015) agree. These findings are also expected in this research (hypothesis 7).

A positive relation between Openness to experience and all Mastery (Self and Task) goals is expected (hypothesis 8), based on the research of Chen and Zhang (2011). A negative relation to Other avoidance is expected (hypothesis 9), because of the negative relations Chen and Zhang (2011) and McCabe et al. (2013) found between Openness to experience and Performance avoidance. About Performance approach (comparable with Other approach), the results are not univocal, so there is no hypothesis for this relation.

Method

Respondents

A total of 248 (40% male and 60% female) high school and pre-university students (except from their exam year; in Dutch: 4 havo, and 4/5 VWO) with a mean age of 15.9 years old (SD = .81, range 14-18) voluntarily participated in this study. Schools in a radius of 60 km from the University of Twente (The Netherlands) which educate pre-university students are contacted. Out of these schools, three high-schools wanted to participate (Hengelo N=101, Enschede N=22, Zutphen N=125). Except from the fact that students had to be high school and pre-university students, no sampling is used. Students are assured that all of their responses will remain confidential and will not influence their grades.

Instrumentation

Several different HEXACO questionnaires have been developed, with the difference in length for different purposes (Ashton & Lee, 2009; De Vries, 2013; De Vries, Ashton & Lee, 2009; De Vries & Born, 2013). Out of these, the HEXACO-SPI (simplified personality inventory) self-test questionnaire (De Vries & Born, 2013) is used and related to the 3 x 2 Achievement goal questionnaire (AGQ) (Appendix 1).

The HEXACO-SPI is constructed to be better suitable for use with children (from 11 years old), lower educated people, and (first grade) immigrants (De Vries & Born, 2013). The main differences with the original HEXACO test are shorter sentences (with a mean of 7.7 words, instead of 12.4), easier word-use, and double negative sentences are left out (De Vries & Born, 2013). It is easier to understand for the students and misinterpretations can be prevented. Domain scales of the HEXACO-SPI are almost independent, and has a comparable factor structure among higher and lower educated and the construct validity of the HEXACO-SPI looks a lot like the original HEXACO-PI-R (De Vries & Born, 2013). Some example items from the HEXACO-SPI are “I can look at a painting for a long time.” and “I easily make contact with strangers.” This test can be scaled from 1 (totally disagree) to 5 (totally agree).

To test the achievement goals, a Dutch translation is made of the 3 x 2 achievement goal model of Elliot et al. (2011). The instrument was translated from English to Dutch and then from Dutch to English (see appendix 2). Example items from the original test are “To get a lot of questions right on the exams in this class.”; “To perform better on the exams in this class than I have done in the past on these types of exams.” and “To avoid performing poorly on the exams in this class compared to

my typical level of performance.". Items in this test can be scored on a scale from 1 (not true of me) to 7 (extremely true of me).

Procedure

Prior to the research, a pilot study has been conducted. In this pilot, one student (male, 15 years old, 4 VWO) answered the questionnaire while thinking out loud. In this way, misinterpretations could be detected, as well as the time to full in the questionnaire.

Data is collected in two months in 2016. Students got the test digital or on paper, to be accessible for as many students as possible. Explanation was given about why the students are asked to answer the questions for the research and for themselves and how to do this. Information how to find their own results on the Internet by their unique used code was provided as well if they completed the test on paper. No personal information was asked. Students were only asked for their class level, gender and age.

Students were asked to answer the questionnaire about how they feel/think related to school in general. They should be able to answer the questions themselves, but they could also ask the teacher or researcher. Completing the test took place in normal class setting. Due to the fact that students have ages between 14 and 18 years old, parental permission was needed. Passive consent was used. The teachers informed the parents/care givers

The procedure of this research is in accordance with the regulations and standards that were stated in the faculties' Protocol about Ethics and Research of the University of Twente and was approved by the Ethical commission.

Data-analysis

First of all, Cronbach's alpha was calculated to test the reliability of both tests. To test the validity of the Dutch translation of the 3 x 2 AGQ and HEXACO, a confirmatory factor analysis was conducted. Normal distribution was tested by the Shapiro-Wilk and Kurtosis. To inspect the zero-order relations of the HEXACO domains with the 3 x 2 achievement goals, as well as to test differences with Mastery, Mastery avoidance and Mastery approach and to test correlations between achievement goals, correlational analyses were conducted.

Results

To test the reliability of both tests, Cronbach's alpha was calculated. Cronbach's alpha for the HEXACO domains are all above .70 and the Achievement goals scales seem to score even higher: all above .77, see table 2 .

The intended subcategories Other (1), Task (2) and Self (3) are recognized by a confirmative factor analyze, see table 3. Factor loadings higher than .50 are in bold. No separation between the approach and avoidance can be made using factor analysis. Item 13 of the achievement goals seems to match two categories; category 2 (Task) and 3 (Self), with the best match to 3 (where it belongs). The item is *"My goal is to do better on the exams than I typically do in this type of situations."*, which is not really strange to have a good match with Task items as well.

Table 2

Psychometric Properties, Reliability and Pearson Correlations of the 3 x 2 Achievement goals and HEXACO personality domains (N = 248)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Age		-,08	-,01	-,08	,02	,06	,15*	,12	,06	,04	-,06	-,07	,03	,15*	,00	,01	-,01
2. Gender (1 = M, 2 = F)			,11	,14*	,09	,10	-,00	,05	,21**	,36**	-,09	,00	,05	,01	,13*	,11	,13*
3. Task approach				,75**	,65**	,53**	,31**	,33**	-,02	,12	,04	-,17**	,08	,03	,84**	,89**	,70**
4. Task avoidance					,64**	,64**	,31**	,43**	-,07	,11	,02	-,12	,10	,08	,88**	,76**	,89**
5. Self approach						,69**	,40**	,45**	,03	,14*	,07	-,14*	,15*	,14*	,87**	,92**	,74**
6. Self avoidance							,40**	,56**	-,03	,13*	-,03	-,16*	,14*	,24**	,85**	,68**	,92**
7. Other approach								,86**	-,11	,10	-,05	-,04	,19**	,07	,42**	,39**	,40**
8. Other avoidance									-,14*	,10	-,07	-,09	,14*	,10	,53**	,43**	,56**
9. Honesty humility										,17**	-,02	,36**	,35**	,09	-,03	,00	-,05
10. Emotionally											-,14*	,07	,14*	,02	,15*	,15*	,13*
11. Extraversion												,04	-,03	-,15*	,03	,06	-,01
12. Agreeableness													,18**	-,02	-,17**	-,17**	-,16*
13. Conscientiousness														,05	,14*	,13*	,13*
14. Openness to experience															,15*	,10	,18**
15. Mastery																,94**	,95**
16. Mastery approach																	,80**
17. Mastery avoidance																	
Mean	15,94	1,60	17,82	17,42	16,44	16,33	12,95	13,63	47,75	47,49	57,78	46,75	50,52	49,13	68,00	34,26	33,75
SD	,81	,49	2,91	3,28	3,34	3,74	4,90	4,78	7,57	8,97	9,64	7,33	8,25	9,03	11,40	5,68	6,36
Reliability			,86	,77	,80	,81	,91	,87	,71	,81	,86	,76	,80	,82	,92	,87	,85

Note. **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 3

Factor loadings for factor analysis with varimax rotation of achievement goals scales[a]

Item number*	Component 1	2	3
14	**,92**	,14	,12
10	**,90**	,21	
17	**,88**	,14	,21
1	**,86**		,12
11	**,87**	,17	,25
6	**,69**		,42
2	,11	**,84**	,14
15	,11	**,83**	,24
8	,14	**,78**	,23
9	,20	**,73**	,29
4	,16	**,72**	,26
12		**,51**	,48
16	,24	,22	**,79**
18	,21	,36	**,75**
5	,24	,16	**,71**
7	,17	,38	**,66**
13	,27	**,53**	**,54**
3		,44	**,50**

Note. a. Rotation converged in 5 iterations.

*item numbers correspondent with the items as used in the test (Appendix 1).

Descriptive statistics

The means and standard deviations of the HEXACO domains and 3 x 2 achievements goals are presented in table 2. HEXACO domains consist of 4 facets with 4 items, with possible scores between 1 and 5, which means possible scores for each domain is between 16 and 80. Achievement goals consist of 3 items with scores between 1 and 7, so the possible scores for each achievement goal is between 3 and 21.

Normal distribution

Normal distribution of the data is tested with the Shapiro-Wilk test. Values greater than .05 indicate normal distribution. This is the case for Honesty humility (.25), Emotionally (.41), Conscientiousness (.09) and Openness to experience (.31). A less strict test to test normality is the Kurtosis. This test is applied to all concepts, achievement goals as well as performance goals. Except from Task avoidance (2.56) and Task approach (3.25), Kurtosis values are between -2.00 and +2.00. These values are considered to be acceptable in order to prove normal univariate distribution, so normal distribution will be followed. Due to the nature of the items, it is not surprising for the achievement goals not to be normally distributed.

Correlations

To test the bivariate correlations between the HEXACO personality traits and the 3 x 2 achievement goals, Pearson correlations are tested (see table 2). These correlations are all very weak. The correlation between Openness to experience and Self avoidance is the highest with r=.24.

Based on these results, correlations with Task and Self together are tested as well. Task approach and Self approach together are comparable with Mastery approach in previous research, Task avoidance and Self avoidance are comparable with Mastery avoidance and all together is comparable with Mastery. These results are presented in table 2 as well.

Correlations between the goals are tested as well to make sure they test something different, especially for the Task and Self goals, as they are formed by splitting up the Mastery goals. If the goals would test the same thing, it would be a perfect correlation of 1. Results presented in table 2 show that the highest correlation between Task and Self is .65, which indicates Task and Self do not completely test the same thing. These results are comparable with the results of Elliot et al. (2011) in their study 2 among undergraduates students from the United states. Results from their study 1 among German undergraduates show some differences. The correlations are lower, but most of these are not significant.

Conclusion and discussion

The central research question in this study is: what is the relationship between the HEXACO personality traits and the 3 x 2 achievement goals of high school and pre-university students in The Netherlands? To answer this question, usability of the tests are tested and hypothesizes for the relationships are formulated. In this section, conclusions are drawn and limitations to this research as well as suggestions for further research are discussed.

Both tests, the translated version of the 3 x 2 achievements goals questionnaire and the HEXACO test are reliable with Cronbach's alpha's above .80. Even though the relations between both test are weak, some of the expectations are met. None of the significant correlations is in contradiction to the expectations.

The negative relation between Honesty humility and Other avoidance is in line with expectation. A reason for this correlation might be that students who score high on Other avoidance goals use strategies which are opposed to honesty such as cheating, manipulating others, or breaking rules (Dinger et al., 2015). The relation to Other approach is not significant, which means hypothesis 1 is partly supported. Hypothesis 2 is not supported. The relation between Honesty humility and Self approach and Task approach are not significant either.

For Emotionality, no hypothesis was made, because of the small relation in just one research. This small relation of Mastery found by Dinger et al. (2015), can be supported by the significant positive relations to Self approach and Self avoidance. The relation to Task approach and Task avoidance are not significant, which can be an explanation for the relation Dinger et al. (2015) found without separation in Task and Self. The significant relation to Self approach and Self avoidance makes sense, as students with high scores on Emotionality are characterized by feelings of concerns and fear (Lee & Ashton, 2015), which will make them start in time to learn for tests and strive for really good grades.

None of the relations with Extraversion is significant which means hypothesis 3, 4 and 5 are not met. Chen and Zhang (2013) found positive relations to Mastery approach and Mastery avoidance. To test if the absence of relation to Mastery aspects (hypothesis 3) is due the separation of Mastery into Self and Task, the relation to Mastery (in which Self and Task are combined) is tested as well. This analysis shows no significant relations to Extraversion as well, so the absence of the relation in the 3 x 2 model has nothing to do with the separation of Mastery into Self and Task. Extraversion is mostly about social interaction (Lee & Ashton, 2015) so it does not sound really strange to have no significant connection to the achievement goals.

The negative relation between Agreeableness and Other approach and Other avoidance is not significant, so hypothesis 6 cannot be accepted. There were no expectations for Agreeableness and Self approach, Self avoidance and Task approach and Task avoidance. In this research, these relations seem to be negative (for Task avoidance it is not significant).

The positive relations between Conscientiousness and Mastery (avoidance and approach) and Performance approach (hypothesis 7) in previous research (McCabe et al., 2011, Chen & Zhang, 2013 and Dinger et al., 2015) are partly met in this study. Because Mastery is split up in Self and Task in the 3 x 2 achievements goals model, a positive relation was expected in both, Self and Task. The positive relation between Conscientiousness and Self approach and Self avoidance and Other approach are met, as well as Other avoidance (which was not hypothesized), but the positive relations to Task approach and Task avoidance are not significant. By taking together Self and Task as Mastery, the relation is significant as would be expected based on previous research (McCabe et al., 2011, Chen & Zhang, 2013 and Dinger et al., 2015). Based on the scale descriptions of (Lee & Ashton, 2015), positive relations to all achievement goals sound logical as students with high scores on Conscientiousness tend to organize their time, work in a disciplined way towards their goals and strive for perfection. This means, the absence of the relation between Task goals and Conscientiousness cannot be explained.

Hypothesis 8 is partly met. A positive relation between Openness to experience and all Mastery (Self and Task) goals was expected based on the research of Chen and Zhang (2013). Only the positive relation to Self approach and avoidance was significant. Taking Task and Self together, we get a score comparable to Mastery. In this case, the relation between Openness to experience and Mastery is .15. Students with high scores on Openness to experiences are inquisitive about various domains of knowledge (Lee & Ashton, 2015). The main motive seems to be one's own intrapersonal trajectory as the evaluative referent. With this reasoning, it makes sense that there is a positive relation to Self and not significant to Task. The negative relation to Other avoidance (hypothesis 9) is not found. This can also be due the high focus on one's own trajectory.

For Conscientiousness and Openness to experience, the expectations based on Mastery are true for the Self approach and avoidance, but not for Task. For Extraversion (X) positive relations were expected to Task and Self based on Mastery, but these are not found. The separation of Mastery in Task and Self can be supported, even though the relatively high correlations between Task and Self based goals (see table 6), which were also found by David (2014) and Elliot et al. (2011). The strong positive correlation between Task-based and Self-based goals seems to suggest that Task-based and Self-based goals may not be differentiated (David, 2014). Elliot et al. (2011) argue that the use of similarly worded items in the 3 × 2 AGQ may have prompted response sets that inflated the inter-

correlations among the goal variables and Murayama, Elliot, and Yamagata (2011) argues that variables measured with items containing significant semantic overlap tend to be correlated. For Openness to experience, Conscientiousness, and Emotionally, correlations to Self and Task are different, which means it is a more exact link.

Whereas McCabe et al. (2013) did not find any significant relationship between Openness to experience and Mastery approach, Chen and Zhang (2011) found a positive relation of .39. As earlier mentioned, this sounds logical with the reasoning that students high in Openness to experience are intellectually curious and willing to enjoy novel ideas. But the question can rise why McCabe at al. (2013) did not find this significant relationship. Results of this study shows only significant positive relations between Openness to experience and Self approach and Self avoidance, but not to the Task goals. This could have cause the difference findings between McCabe et al. (2013) and Chen and Zhang (2011).

Students participating in this research were from schools for academically strong students. This can cause the low relations between HEXACO domains and Achievement goals because these students might have relatively high achievement goals. This may limit the generalization of the results to a more general adolescent population. To increase the generalizability, more diverse data sources and participants are needed.

The factor analyze recognized the three concepts of Task, Self and Other, but not the difference in Approach and Avoidance valence. Chen and Zhang (2011) did find the difference in approach and avoidance in the 2 x 2 model. David (2014) argued that his results (using the 3 x 2 model) showed that all achievement goal items have significant loading in their hypothesized latent factors, but it is not clear if these latent factors are separated in approach and avoidance valence. Pearson correlations between HEXACO personality domains and the achievement goals, show only for Agreeableness and Honesty humility differences between the Approach and Avoidance goal constructs. The absence of this distinction can be caused by translation, even though a second look at the items don't show any reasons to support this. Another reason can be that students were tired of completing the test and just gave every item the same score. For new research, it can be wise not to put the 18 items of the 3 x 2 model behind 96 other questions (in this case the HEXACO-SPI), bit in front or not that much items in total.

Both, the HEXACO-SPI and the 3 x 2 achievement goals model are self-report scales. It should be noted that response styles could be responsible for the observed relations. Ashton et al. (2014) made this seem unlikely, given the substantial self-observer agreement typically obtained for the HEXACO domains.

Students had difficulties with the 3 x 2 achievement goals questionnaire due the items which look like each other a lot (per 3 items). It is possible that translation into Dutch made them more look alike then they already are in English. Some students complained the questions were obvious, like "why would someone try not to have a good mark?" or "Of course I would like to have a good mark compared to classmates.". It can be less obvious and avoid the item looking alike, by using latent variables. For example "If I know marks will be read out load, it is more important to me to perform well then without reading out load."(Other approach), "I study to pass the test. I don't mind if I don't remember anything after" (Task avoidance), "I feel bad when my grade is lower than my previous grade" (Self approach)

Results show a higher mean score for Task based goals (17.62) than for Self based goals (16.38), which suits the results of Elliot et al. (2011) who found higher scores on task than on self for German and American students. Filipino students score higher on Self based goals than on Task based goals (David, 2014). David (2014) argues this can be due to cultural differences, which will be possible since the Netherlands is better comparable to Germany and America than to Philippines.

To our knowledge, this is the first effort trying to relate HAXACO personality domains to the 3 x 2 Achievement goals. Some of the expected relations (based on research by Dinger et al., 2015; Cheng and Zhang, 2011 and McCabe et al., 2013) are supported in this research and none of the significant relations is in contradiction to the expectations. The weakness of the correlations is comparable to the correlations in research using previous models. Further research to confirm the usability of the Dutch 3 x 2 achievement goal is welcome, as well as in different languages. To be able to generalize to different school levels and different situations (other than schools) further research is needed as well.

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Appendix 1: Questionnaires

Beste leerling,

Naast dat het voor jezelf en je persoonlijke ontwikkeling erg interessant is om te weten welke persoonlijkheidskenmerken en prestatie doelen je hebt, help je mij heel erg door het invullen van deze vragenlijst. De vragenlijst bestaat uit twee delen, de persoonlijkheid en de prestatie doelen. Geen antwoord is goed of fout en de beantwoording van de stellingen zal op geen enkele manier invloed hebben op een cijfer, dus wees alsjeblieft zo open en eerlijk mogelijk.

Voor de analyse is het belangrijk dat je alle vragen invult, ook als je niet helemaal zeker bent van je antwoord!

Alle gegevens blijven anoniem, maar jij kunt wel je eigen resultaten inzien. Hiervoor moet je even het nummer bovenaan deze pagina noteren of er een foto van maken. Met deze code kun je via de website je eigen resultaten opvragen.

Graag zou ik wel de volgende informatie van je willen weten, om een goede analyse te kunnen maken:

Jongen/Meisje
Leerjaar + niveau ____
Leeftijd ____

Ik verklaar hierbij dat ik ben geïnformeerd over het onderzoek en dat mijn vragen zijn beantwoord. Ik doe vrijwillig mee in dit onderzoek en ik ben me er van bewust dat ik me ten alle tijden terug kan trekken. Mijn antwoorden zullen geheel anoniem verwerkt worden.

_____

Hieronder volgen enkele uitspraken. Sommige van deze uitspraken komen overeen met hoe je bent. Andere uitspraken komen juist niet overeen met hoe je bent. Lees de uitspraken goed en geef vervolgens aan in hoeverre deze uitspraken kloppen. Gebruik daarvoor de nummers 1 tot en met 5. Daarbij hebben de nummers de volgende betekenis:

1 = Helemaal mee oneens
2 = Mee oneens
3 = Neutraal (Noch mee eens, noch mee oneens)
4 = Mee eens
5 = Helemaal mee eens

Geef bij elke uitspraak een antwoord, zelfs als je niet helemaal zeker van jouw antwoord bent.

	1	2	3	4	5
1. Ik kan lang naar een schilderij kijken.					
2. Ik ruim mijn kleren netjes op.					
3. Ik blijf onaardig tegen iemand die gemeen was.					
4. Mensen mogen mij graag.					
5. Ik vermijd situaties waarin ik gewond kan raken.					
6. Ik doe mij soms beter voor dan ik werkelijk ben.					
7. Ik lees graag over nieuwe ontdekkingen.					
8. Ik werk harder dan anderen.					
9. Ik geef vaak kritiek.					
10. Ik houd me in een groep op de achtergrond.					
11. Ik ben bezorgd over onbelangrijke dingen.					
12. Ik verzwijg het als ik te weinig heb betaald.					
13. Ik heb veel fantasie.					
14. Ik kijk mijn werk zorgvuldig na.					
15. Ik pas mijn mening aan die van anderen aan.					
16. Ik werk liever alleen dan met anderen.					
17. Ik kan persoonlijke problemen helemaal alleen aan.					
18. Ik wil dat anderen mij belangrijk vinden.					
19. Ik houd van mensen met rare ideeën.					
20. Ik denk goed na voordat ik iets onveiligs doe.					
21. Ik reageer soms erg fel als iets tegenzit.					
22. Ik heb altijd zin in het leven.					
23. Ik leef heel erg mee met het verdriet van anderen.					
24. Ik ben een gewoon persoon; alles behalve bijzonder.					
25. Ik vind de meeste kunst stom.					
26. Ik kan door mijn eigen troep soms moeilijk iets vinden.					
27. Ik vertrouw anderen weer snel nadat ze mij bedrogen hebben.					
28. Niemand vindt mij leuk.					
29. Ik kan goed tegen lichamelijke pijn.					
30. Ik vertel wel eens een leugentje om mijn zin te krijgen.					
31. Ik vind wetenschap saai.					
32. Als iets moeilijk is, geef ik het snel op.					
33. Ik ben zacht tegenover anderen.					
34. Ik leg gemakkelijk contact met vreemden.					
35. Ik ben vaak ongerust dat er iets misgaat.					
36. Ik ben benieuwd hoe je op een oneerlijke manier veel geld kan verdienen.					

37. Ik houd ervan om nieuwe manieren te verzinnen om dingen te doen.					
38. Ik vind het zonde van de tijd om mijn werk op fouten na te kijken.					
39. Ik geef gemakkelijk anderen gelijk.					
40. Ik ben het liefst in m'n eentje.					
41. Ik heb zelden steun van anderen nodig.					
42. Ik wil graag kostbare spullen bezitten.					
43. Ik zou het vervelend vinden als mensen mij raar zouden vinden.					
44. Ik doe wat in mij opkomt.					
45. Ik ben zelden kwaad op iemand.					
46. Ik ben vaak somber.					
47. Ik voel soms tranen in mij opkomen als ik afscheid neem.					
48. Ik vind dat ik de regels mag overtreden.					
49. Ik houd van gedichten.					
50. Mijn kamer is altijd opgeruimd.					
51. Ik ben lang op mijn hoede bij mensen die mij kwaad hebben gedaan.					
52. Niemand wil graag met mij praten.					
53. Ik ben bang om pijn te lijden.					
54. Ik ben slecht in het 'doen alsof'.					
55. Ik verveel me bij natuurprogramma's op de tv.					
56. Ik stel ingewikkelde taken zo lang mogelijk uit.					
57. Ik reageer negatief als iemand fouten maakt.					
58. Ik ben vaak de woordvoerder van een groep.					
59. Ik maak me minder zorgen dan anderen.					
60. Ik ga liever dood dan dat ik iets steel.					
61. Ik houd ervan om gekke dingen te maken.					
62. Ik werk erg nauwkeurig.					
63. Het is moeilijk mijn ideeën te veranderen.					
64. Ik ga het liefst met veel mensen om.					
65. Ik heb anderen nodig om mij te troosten.					
66. Ik draag liever oude vodden dan dure kleren.					
67. Anderen vinden dat ik vreemde ideeën heb.					
68. Ik kan mijzelf goed beheersen.					
69. Zelfs als ik slecht behandeld word, blijf ik kalm.					
70. Ik ben over het algemeen vrolijk.					
71. Ik word verdrietig als een hele goede vriend(in) lang weggaat.					
72. Ik sta boven de wet.					
73. Het verbaast me dat mensen geld willen besteden aan kunst.					
74. Ik zorg dat dingen altijd op de juiste plek liggen.					
75. Ik ben goed van vertrouwen.					
76. Ik denk dat veel mensen mij onaardig vinden.					
77. Ik durf meer dan anderen in gevaarlijke situaties.					
78. Ik vind het moeilijk om te liegen.					
79. Ik zou graag een boek over uitvindingen willen lezen.					
80. Ik luier liever dan dat ik hard werk.					
81. Ik laat het direct merken als ik iets stom vind.					
82. Ik voel me slecht op mijn gemak in een onbekende groep.					
83. Zelfs onder spanning slaap ik goed.					
84. Ik verzwijg dat ik iets kapot heb gemaakt als het geheim kan blijven.					
85. Mijn werk is vaak origineel.					

86. Ik herlees wat ik schrijf om te zorgen dat het foutloos is.					
87. Ik ben het snel met anderen eens.					
88. Ik praat graag met anderen.					
89. Ik kan prima in m'n eentje moeilijkheden overwinnen.					
90. Ik wil graag beroemd zijn.					
91. Mensen zijn verrast door mijn opvattingen.					
92. Ik doe vaak dingen zonder echt na te denken.					
93. Mensen hebben mij wel eens woedend gezien.					
94. Ik ben zelden opgewekt.					
95. Ik moet huilen bij trieste of romantische films.					
96. Ik heb recht op een speciale behandeling.					

Je bent <u>bijna</u> klaar. Ga door met de vragen op de volgende pagina!

De volgende stellingen gaan over doelen die je wel of juist niet hebt op het gebied van presteren. Let op, deze vragen kunnen beoordeeld worden met een score van 1 – 7!

1	2	3	4	5	6	7
Geldt niet Voor mij		Geldt een beetje	Middelmatig		Geldt voor mij	Helemaal waar

Mijn doel is …

	1	2	3	4	5	6	7
1. Om het beste te presteren op toetsen in vergelijking met klasgenoten.							
2. Om veel vragen goed te hebben op toetsen.							
3. Om beter te presteren op toetsen dan ik in het verleden heb gedaan op hetzelfde soort toetsen.							
4. Te vermijden incorrecte antwoorden te geven op toetsen.							
5. Te vermijden om minder goed te presteren op toetsen in vergelijking met mijn normale prestatieniveau.							
6. Te vermijden minder goed te presteren in vergelijking met anderen op toetsen.							
7. Om goed te presteren op toetsen, in vergelijking met hoe goed ik het heb gedaan in het verleden.							
8. Om de goede antwoorden te weten op vragen in de toets.							
9. Te vermijden veel vragen verkeerd te hebben op een toets.							
10. Om goed te presteren op toetsen in vergelijking met anderen.							
11. Te vermijden slechter te presteren dan andere studenten doen op toetsen.							
12. Te vermijden om vragen te missen op een toets.							
13. Om beter te presteren op toetsen dan ik normaal gesproken doe in dit soort situaties.							
14. Om beter te presteren dan mijn klasgenoten doen op toetsen.							
15. Om veel vragen correct te beantwoorden op een toets.							
16. Te vermijden slechter te presteren op toetsen dan ik heb gedaan op eerdere vergelijkbare toetsen.							
17. Te vermijden op toetsen minder goed te presteren dan mijn klasgenoten doen.							
18. Te vermijden om slechter te presteren op toetsen dan ik normaal gesproken doe op dit soort toetsen.							

Je bent klaar!

Bedankt voor het invullen!

Scoring Key HEXACO:

HEXACO-SPI facet	**HEXACO-SPI***
H: Integriteit	
Oprechtheid	6R, 30R, 54, 78
Rechtvaardigheid	12R, 36R, 60, 84R
Hebzucht vermijding	18, 42R, 66, 90R
Bescheidenheid	24, 48R, 72R, 96R
E: Emotionaliteit	
Angstigheid	5, 29R, 53, 77R
Bezorgdheid	11, 35, 59R, 83R
Afhankelijkheid	17R, 41R, 65, 89R
Sentimentaliteit	23, 47, 71, 95
X: Extraversie	
Sociale zelfwaardering	4, 28R, 52R, 76R
Sociale bravoure	10R, 34, 58, 82R
Sociabiliteit	16R, 40R, 64, 88
Levendigheid	22, 46R, 70, 94R
A: Verdraagzaamheid	
Vergevingsgezindheid	3R, 27, 51R, 75
Zachtaardigheid	9R, 33, 57R, 81R
Aanpassingsbereidheid	15, 39, 63R, 87
Geduld	21R, 45, 69, 93R
C: Consciëntieusheid	
Ordelijkheid	2, 26R, 50, 74
IJver	8, 32R, 56R, 80R
Perfectionisme	14, 38R, 62, 86
Bedachtzaamheid	20, 44R, 68, 92R
O: Openheid voor Ervaringen	
Esthetische waardering	1, 25R, 49, 73R
Weetgierigheid	7, 31R, 55R, 79
Creativiteit	13, 37, 61, 85
Onconventionaliteit	19, 43R, 67, 91

* De scores op items met een ‘R’ na het nummer moeten worden gehercodeerd voordat de facet- en/of factorschaalscores worden berekend, d.w.z.: 5→1, 4→2, 3→3, 2→4, 1→5.

Scoring key Achievement goals questionnaire:

Categorie	Items
Task approach goal items	2, 8, 15
Task avoidance goal items	4, 9, 12
Self approach goal items	3, 7, 13
Self avoidance goal items	5, 16, 18
Other approach goal items	1, 10, 14
Other avoidance goal items	6, 11, 17

Appendix 2: Translation with back-translation 3 x 2 Achievement Goals Questionnaire

The translated 3 x 2 achievement goals questionnaire, is translated back to English again, to check whether it's correctly done. Because in the context of this research, the test is meant to test general performing goals in schools, the part 'in this class' in the original questionnaire is left out of the translation.

Original English item
Translated item from English to Dutch
Back translation from Dutch to English

1. To get a lot of questions right on the exams in this class.
   Om veel vragen goed te hebben op toetsen.
   To have many questions right at tests
2. To know the right answers to the questions on the exams in this class.
   Om de goede antwoorden te weten op vragen in de toets.
   To know the right/correct answers to questions of/in the test
3. To answer a lot of questions correctly on the exams in this class.
   Om veel vragen correct te beantwoorden op een toets.
   To answer many questions correctly at a test

4. To avoid incorrect answers on the exams in this class.
   Te vermijden incorrecte antwoorden te geven op toetsen.
   To avoid giving/providing incorrect answers at tests
5. To avoid getting a lot of questions wrong on the exams in this class.
   Te vermijden veel vragen verkeerd te hebben op een toets.
   To avoid failing a lot of questions at a test
6. To avoid missing a lot of questions on the exams in this class.
   Te vermijden om vragen te missen op een toets.
   To avoid missing/overlooking questions at a test

7. To perform better on the exams in this class than I have done in the past on these types of exams.
   Om beter te presteren op toetsen dan ik in het verleden heb gedaan op hetzelfde soort toetsen.
   To perform better at tests than I have done before at similar (kind of) tests
8. To do well on the exams in this class relative to how well I have done in the past on such exams.
   Om goed te presteren op toetsen, in vergelijking hoe met goed ik het heb gedaan in het verleden.
   To perform better at tests, compared to how I well I performed in the past.
9. To do better on the exams in this class than I typically do in this type of situation.
   Om beter te presteren op toetsen dan ik normaal gesproken doe in dit soort situaties.
   To perform better at tests than I would normally perform in situations like this

10. To avoid doing worse on the exams in this class than I normally do on these types of exams.
    Te vermijden om slechter te presteren op toetsen dan ik normaal gesproken doe op dit soort toetsen.
    To avoid performing worse at tests than I normally would at tests like this

To avoid performing worse at tests than I would normally perform at tests like this

11. To avoid performing poorly on the exams in this class compared to my typical level of performance.
Te vermijden om minder goed te presteren op toetsen in vergelijking met mijn normale prestatieniveau.
To avoid performing less well at tests compared to my regular performance level
To avoid performing less well at tests in comparison to my regular performance

12. To avoid doing worse on the exams in this class than I have done on prior exams of this type.
Te vermijden slechter te presteren op toetsen dan ik heb gedaan op eerdere vergelijkbare toetsen.
To avoid performing worse at tests than I have performed before at similar/comparable tests.

13. To outperform other students on the exams in this class.
Om het beste te presteren op toetsen in vergelijking met klasgenoten.
To perform the best at tests when compared to my classmates
To be the highest performer of all my classmates at tests
To perform the best of all my classmates at tests

14. To do well compared to others in the class on the exams.
Om goed te presteren op toetsen in vergelijking met anderen.
To perform well at tests compared to others

15. To do better than my classmates on the exams in this class.
Om beter te presteren dan mijn klasgenoten doen op toetsen.
To perform better at tests than my classmates
To perform better than my classmates at tests

16. To avoid doing worse than other students on the exams in this class.
Te vermijden slechter te presteren dan andere studenten doen op toetsen.
To avoid performing worse at tests than other students
To avoid performing worse than other students at tests

17. To avoid doing poorly in comparison to others on the exams in this class.
Te vermijden minder goed te presteren in vergelijking met anderen op toeten.
To avoid performing less well at tests in comparison to others

18. To avoid performing poorly relative to my fellow students on the exams in this class.
Te vermijden op toetsen minder goed te presteren dan mijn klasgenoten doen.
To avoid performing worse than my classmates at tests
To avoid performing less well at tests in comparison/compared to my classmates