Educational Research Journal《教育研究學報》, *Vol. 17, No.1, Summer 2002*

The Development of a New Scale to Measure Teachers' Attitudes Toward Students (TATS)

Aik-kwang Ng
National Institute of Education
Nanyang Technological University

Teachers vary in their attitudes toward students. Some teachers are conservative and autocratic, while others are liberal and democratic. Research indicates that both of these attitudes can have a significant, though different, impact on the learning outcomes of students. To spur further research in this important area, I developed a new scale for measuring these two attitudes. This new scale is known as the TATS (Teachers' Attitude Toward Students). There were altogether 16 items in this scale. One set of items measured the conservative-autocratic attitude, while the other measured the liberal-democratic attitude. A survey questionnaire containing this new scale to measure attitudes (TATS) and an established scale to measure personal values (the Schwartz value survey)was distributed to a sample of 65 experienced teachers and 82 trainee-teachers in Singapore. The TATS scale was found to possess internal reliability. Exploratory factor analysis revealed that it possessed a clear factor structure. In addition, the conservative-autocratic attitude of TATS was

Correspondence concerning this article should be addressed to Aik-kwang Ng, National Institute of Education, Nanyang Technological University, 1 Nanyang Walk, Singapore 637616. E-mail: akng@nie.edu.sg

also found to correlate positively with the closed cluster of the Schwartz value survey, while the liberal-democratic attitude of TATS was found to correlate positively with the open cluster of the Schwartz value survey. Experienced teachers scored significantly higher on the conservative-autocratic subscale, while trainee-teachers scored significantly higher on the liberal-democratic subscale. Based on the survey findings, it was concluded that the TATS scale was reliable and valid. Various suggestions were made on how to utilize it in future studies.

Key words: TATS; conservative-autocratic attitude; liberal-democratic attitude; self-determination perspective

According to Biggs and Moore (1993), teachers vary in their beliefs of students. Some teachers believe that students are inherently lazy, lack discipline, and must be pushed to work hard (Theory X of McGregor). As a result of this belief, they adopt a conservative and autocratic attitude toward their students. Conservative-autocratic teachers believe in the traditional authority of teachers in class; students must respect this authority without fail. Misbehaving students are punished to inculcate a sense of morality in them. A firm discipline in class is maintained via a consistent use of rewards and punishments. Little emphasis is placed on encouraging the individual autonomy of students. Instead, students are expected to work hard to achieve the goals which their teacher has set for them.

In contrast, other teachers believe that every student is a unique individual who is capable of exercising self-direction and self-control if they are committed to the learning objectives (Theory Y of McGregor). As a result of this belief, they adopt a liberal and democratic attitude toward their students. Liberal-democratic teachers believe that every student has an innate potential to be realized. They strive hard to assist their students to actualize this inner potential. Liberal-democratic teachers behave in a warm and personable manner toward their students, and encourage them to set their own goals. They use reason and moral persuasion to deal with misbehaving students instead of scolding or punishing them (Watt, 1989).

Research indicates that these contrasting attitudes of teachers have a differential impact on the learning outcomes of students. More specifically, students who were taught by liberal-democratic teachers were more curious about what they had learned, expressed a greater desire for challenging assignments, and displayed an independent and creative learning style. In contrast, students who were taught by conservative-autocratic teachers evidenced lower confidence in their own abilities and displayed lower self-worth. They also tended to feel less related or connected to such teachers (Ryan & Guardia, 1999; Zelina, Bohonyova, & Alberty, 1996).

The self-determination perspective provides a psychological mechanism to account for this difference in learning outcomes (Ryan, 1995). From this perspective, every individual has three basic psychological needs, namely need for autonomy, need for relatedness, and need for competence. When these three psychological needs are met, the individual develops in a differentiated yet integrated manner. But when some or all of these needs are not met, the psychological development of the individual will be thwarted. To ensure the optimal development of the individual, the social environment must be designed in a way that enables these psychological needs to be met.

For students, optimal development translates into student engagement in the learning process. Student engagement is manifested in student enthusiasm for a topic as well as student perseverance to muster the topic in a self-directed manner. According to Reeve (1996, p. 204), who based his assertion on the self-determination perspective, to arouse student engagement in the learning process, three basic prerequisites must be met in the learning environment: first, a teacher must support the personal autonomy of students (so as to meet their psychological need for autonomy); second, he or she must be interpersonally involved with students (so as to meet their psychological need for relatedness); finally, he or she must provide a challenging task structure for students (so as to meet their psychological need for competence).

We have seen that liberal-democratic teachers believe that every stu-

dent has an inner potential to be realized, and encourage students to strive hard to realize their potential in a warm and personable manner. This style of teaching enables the fulfillment of the three psychological needs of students. Consequently, students are more engaged in the learning process, as manifested in their enthusiasm and perseverance in the learning task. In contrast, conservative-autocratic teachers believe that students are inherently lazy, and need to be prodded to perform a certain task. This style of teaching prevents the fulfillment of the three psychological needs of students. Consequently, students are less engaged in the learning process, as manifested in their low self-esteem as a student.

From the above brief review of theoretical literature, we can see that teachers' attitude toward students is an important construct with much theoretical underpinning. In addition, it has a lot of psychological impact on the learning outcomes of students. There is much scope to conduct research in the school setting with this construct, and to apply the findings to enhance the learning experiences of students. One way to encourage research in this area is to develop a reliable and valid scale for measuring the construct. My present study reports the development and validation of such a scale for measuring teachers' attitudes toward students, or TATS in short.

In developing the TATS scale, four issues were considered. The first issue concerned the formal structure of the TATS scale. I decided that for ease of administration in the future, the TATS scale should be a self-report measure consisting of two subscales: one would assess the conservative-autocratic attitude of teachers toward students; the other would assess the liberal-democratic attitude of teachers toward students. Each subscale should contain an equal number of items to ensure the balance. Respondents would need to gauge the extent of their agreement with each item in the TATS scale, using a 5-point Likert scale with "1" = "Strongly Disagree" and "5" = "Strongly Agree." The sum of the relevant items in each subscale would represent the strength of the respondent's attitude.

The second issue related to the development of appropriate items to make up the TATS scale. To develop these items, I first conducted a thor-

ough and systematic examination of the relevant literature concerning the phenomenon. Of particular importance was the research by Kerlinger (1984) on liberal and conservative attitudes in various areas of social life, including politics, religion, and education. After careful perusal of the relevant literature, I developed two sets of eight items each (see Table 1).

Table 1 The Two Sets of Items Measuring Teachers' Attitudes Toward Students (TATS)

Conservative-autocratic items	Liberal-democratic items
1. Teachers should have absolute authority in class; students should obey the teacher without fail.	1. Teachers should adopt an open and democratic attitude in class; students should be able to challenge what he/she says.
2. A revival of the teacher's authority is needed, otherwise students will lose respect for teachers.	2. Teachers should reason with misbehaving students, instead of punishing them.
3. The traditional moral standards of society should be ingrained in students without fail, otherwise they will go astray.	3. Teachers should "open negotiation" with students, e.g., on how much work he/she can give them.
4. Teachers should ensure [that] students understand their proper place, i.e. I'm the teacher, you're the student, you must obey what I say.	4. What is needed is a sensitive teacher who can develop good rapport with his/her students.
5. Training students to behave properly is more important than developing their creativity.	5. In teaching students, the most important thing is to nurture their creativity and individual talents.
6. In teaching students, the most critical task is to instill the right discipline in them.	6. Teachers should reduce their personal distance with students by sharing intimate details, e.g., birthday, favorite pop star etc.
7. Students shouldn't be entrusted with too much freedom, as they'll climb over the teacher's head.	7. The traditional moral standards of society should not just be accepted by students; they should learn to critique it.
8. Students should maintain a proper distance from their teachers, e.g., they should address him/her in a respectful manner.	8. Teachers should not use threats and punishments to control the behavior of students.

One set of items was used to measure the conservative-autocratic attitude of teachers toward students (see the left column of Table 1). Different facets of this attitude were tapped. They included the hierarchical nature of the teacher-student relationship, the stress on student discipline rather than creativity, as well as the need to maintain teacher control in the classroom.

The other set of items was used to measure the liberal-democratic attitude of teachers toward their students (see the right column of Table 1). Again different facets of this attitude were tapped. They included the use of reason (rather than threats and punishments) to deal with misbehaving students, the maintenance of an open and consultative attitude in class, as well as an emphasis on developing the creativity of individual students.

The third issue was about the reliability of the TATS scale in measuring the phenomenon. The higher the reliability of the TATS scale, the more consistent the measurement of the phenomenon will be. There were several types of reliability. In this study, I would be examining the internal reliability of the scale. This referred to the degree of correlation between all the items in the TATS scale. A high degree of correlation between the items will indicate that the TATS Scale possesses good internal reliability (Nunnally, 1978).

The final issue to be considered in the development of this scale was its construct validity (Anastasi, 1998). This referred to the question of whether the TATS scale was a valid measure of the phenomenon in question, i.e., does it really measure teachers' attitude toward students? Three methods were adopted in this study to establish the construct validity of the TATS scale. First, I conducted an exploratory factor analysis to examine if different items loaded onto their respective factors. If a clear factor structure emerged, then it would provide evidence for the construct validity of the new TATS scale.

Second, I correlated the TATS scale with an established scale which measured personal values (Schwartz, 1992). It was hypothesized that the conservative-autocratic attitude of TATS would correlate positively with the following value types: conformity, security, tradition, and power. These value types belonged to the closed cluster of values, and hence were compatible with this particular attitude. In contrast, it was hypothesized that the liberal-democratic attitude of TATS would correlate positively with the following value types: self-direction, stimulation, universalism, and hedonism. These value types belonged to the open cluster of values, and hence were

compatible with this particular attitude. If this predicted pattern of correlations emerged, then it would provide evidence for the construct validity of the TATS scale.

Third, I compared the responses from two different groups of respondents. One group of respondents consisted of experienced teachers who were currently teaching in various primary and secondary schools in Singapore. Another group of respondents consisted of trainee-teachers who were enrolled in a teacher-training institute in Singapore. It was reasoned that these two groups of respondents would differ in their attitudes toward students. This is because the educational system in Singapore is extremely competitive and performance-oriented (Ng, 2001a). As a result, experienced teachers are under tremendous pressure to ensure that their students obtain good grades, in contrast to their counterparts in the teacher-training institute, who do not face such pressure.

Research indicates that when teachers are pressured to ensure that their students perform well, they have the tendency to adopt an autocratic and controlling teaching style, e.g., demanding that students complete their assignments on time, punishing those students who disrupt the flow of the lesson and so on. An experimental study which examined this phenomenon of "pressure breeding pressure" was conducted by Deci and his colleagues (1982). In this study, one group of instructors were told to make sure their students' learning were "up to standards," while another group of instructors were told to "facilitate students' learning." Results indicated that the pressured instructors, in comparison to the non-pressured instructors, were more talkative and directive, and administered more evaluations, praise and criticisms to their students.

Extrapolating from these empirical findings, it was hypothesized that experienced teachers in my sample would adopt a more conservative and autocratic attitude toward their students, as they are under a lot of pressure to ensure that their students performed up to standards (the "pressure breeding pressure" phenomenon). In contrast, it was hypothesized that trainee-teachers in my sample would adopt a more liberal and democratic

attitude toward their students, as they are under no such pressure to ensure students' performance. If this predicted pattern of findings emerged, then this would provide evidence for the construct validity of the TATS scale.

Methodology

Sample. The sample consisted of 147 respondents from Singapore, of whom 120 were females and 23 were males. Four did not indicate their gender. 65 respondents were teachers in various primary and secondary schools, and they have an average of 17.4 years of teaching experience. The remaining 82 respondents were all students from the National Institute of Education in Singapore, who were training to become teachers and had no teaching experience.

Teachers' Attitudes Toward Students (TATS). This scale was used to measure two teachers' attitudes toward students. One was the conservative-autocratic attitude, while the other was the liberal-democratic attitude. Each attitude was measured by 8 items, as shown in Table 1. In the actual survey, these two sets of items were randomly positioned in the TATS scale. Respondents were required to gauge their agreement/disagreement with each item, using a 5-point Likert scale with "1" = "Strongly Disagree" and "5" = "Strongly Agree." The sum of the relevant items in each subscale would represent the strength of the respondent's attitude.

Survey of Personal Values (Schwartz, 1992). This survey consisted of a list of 56 personal values. Each personal value was accompanied by a short descriptive phrase (e.g., "Equality — equal opportunity for all"). Respondents used a 9-point scale, ranging from "-1" ("opposed to value") through "0" ("not important") to "7" ("this value is of supreme importance to me"), to rate how important each of these personal values was to him or her as a guiding principle in life. The personal values were classified into ten value types according to the results of data analyses reported by Schwartz (1992), who utilized smallest space analysis applied to the ratings obtained from student and teacher samples in 20 different countries. The personal values that made up a particular value type emerged empirically in a mathematical

region representing that value type in at least 75% of the samples. The ten value types were arranged in a circular order. While those value types located next to each other in the circle would be compatible (e.g., conformity and tradition), those located on opposite ends of the circle would be in conflict with each other (e.g., self-direction versus security). In this study, I only reported the results of those value types that pertained to my study. They fell under two value clusters. The closed cluster consisted of four value types: conformity, security, tradition, and power. The open cluster consisted of another four value types: self-direction, stimulation, universalism, and hedonism.

Procedure. A survey questionnaire containing the two scales was distributed to two groups of respondents in Singapore: experienced teachers teaching in various primary and secondary schools, and trainee-teachers of the National Institute of Education. I distributed the questionnaire to the former to complete during my visit to their schools on official business, and to the latter to complete during class time.

Results

Reliability Analysis. According to Nunnally (1978, p. 245), in the early stages of research on hypothesized measures of a construct, one would save time and energy by working with instruments that had only modest reliability. In this study, an internal reliability of around 0.65 was considered to be adequate. The coefficient alpha for the subscale which measured the conservative-autocratic attitude of TATS was 0.76. The corrected item-total correlations for the individual items in this subscale were moderate to high, ranging from 0.30 to 0.58 (see the top half of Table 2). The coefficient alpha for the liberal-democratic attitude of TATS was 0.62. The corrected item-total correlations for the individual items in this subscale were moderate to high, ranging from 0.22 to 0.47 (see the bottom half of Table 2). Based on these results, it was concluded that the TATS scale possessed adequate reliability.

Table 2 Corrected Item-total Correlations

	Corrected item-total correlations for subscale measuring conservative-autocratic attitude
CA attitude 1	0.30
CA attitude 2	0.43
CA attitude 3	0.56
CA attitude 4	0.47
CA attitude 5	0.47
CA attitude 6	0.48
CA attitude 7	0.36
CA attitude 8	0.58
	Corrected item-total correlations for subscale measuring liberal-democratic attitude
LD attitude 1	0.33
LD attitude 2	0.39
LD attitude 3	0.22
LD attitude 4	0.38
LD attitude 5	0.25
LD attitude 6	0.47
LD attitude 7	0.29
LD attitude 8	0.28

Note. CA attitude — conservative-autocratic attitude
LD attitude — liberal-democratic attitude

Exploratory Factor Analysis. Exploratory factor analysis was conducted on the data, using principal factor analysis with oblique rotation. Two factors with eigenvalues greater than one were extracted, and the resulting pattern matrix was shown in Table 3. As could be seen, the two sets of items loaded separately onto either Factor A or Factor B. Factor A referred to the conservative-autocratic attitude of teachers toward students. The item loadings for this factor were moderate to high, ranging from 0.37 to 0.68 (see the top half of Table 3). Factor B referred to the liberal-democratic attitude of teachers toward students. The item loadings for this factor were also moderate to high, ranging from 0.28 to 0.56 (see the bottom half of Table 3). Based on these results, it was concluded that the TATS scale possessed a clear factor structure. This attested to its construct validity.

Analysis of Correlation Matrix. The inter-correlations between the various subscales of TATS and the Schwartz value survey were shown in Table 4. As could be seen, the conservative-autocratic attitude of TATS was positively and significantly correlated with the closed cluster of the Schwartz value survey, which is consistent with the hypothesis. The respective corre-

Table 3 Factor Loadings of Individual Items

	Factor A	Factor B
CA attitude 1	0.68	
CA attitude 2	0.66	
CA attitude 3	0.56	
CA attitude 4	0.54	
CA attitude 5	0.54	
CA attitude 6	0.53	
CA attitude 7	0.40	
CA attitude 8	0.37	
LD attitude 1		0.56
LD attitude 2		0.55
LD attitude 3		0.46
LD attitude 4		0.39
LD attitude 5		0.37
LD attitude 6		0.37
LD attitude 7		0.34
LD attitude 8		0.28

Note. Only those factor loadings with a value not less than 0.28 are included.

lations with conformity, security, tradition, and power were as follows: $r\,(142) = 0.33, p < 0.001$; $r\,(140) = 0.21, p < 0.01$; $r\,(142) = 0.27, p < 0.001$; and $r\,(141) = 0.28, p < 0.001$. The liberal-democratic attitude was positively and significantly correlated with the open cluster of the Schwartz value survey, again being consistent with the hypothesis. The respective correlations with self-direction, stimulation, universalism, and hedonism were as follows: $r\,(142) = 0.22, p < 0.01$; $r\,(141) = 0.25, p < 0.005$; $r\,(141) = 0.17, p < 0.05$; and $r\,(142) = 0.19, p < 0.05$. Based on these results, it was concluded that the TATS scale possessed convergent validity. This attested to its construct validity.

Table 4 Correlation Matrix of the Sample

	1	2	3	4	5	6	7	8	9	10
1. CA attitude	—									
2. LD attitude	-0.18*	—								
3. Conformity	0.33**	0.03	—							
4. Security	0.21**	0.11	0.57**	—						
5. Tradition	0.27**	-0.01	0.69**	0.48**	—					
6. Power	0.28**	0.09	0.16	0.34**	0.24**	—				
7. Self-direction	-0.07	0.22**	0.42**	0.42**	0.40**	0.24**	—			
8. Stimulation	-0.10	0.25**	0.30**	0.17*	0.26**	0.20*	0.64**	—		
9. Universalism	-0.04	0.17*	0.54**	0.50**	0.49**	0.16	0.67**	0.58**	—	
10. Hedonism	-0.01	0.19*	0.10	0.18*	0.09	0.41**	0.42**	0.44*	0.25**	—

* $p < 0.05$. ** $p < 0.01$.

Analysis of Group Means. For the conservative-autocratic attitude of TATS, the mean and standard deviation scores of the experienced teachers were 27.94 and 4.36 respectively. In comparison, the mean and standard deviation scores of the trainee-teachers were 26.09 and 4.98 respectively. An independent samples t-test yielded the following result: t (144) = 2.35, $p < 0.05$. It meant that the experienced teachers displayed a more conservative and autocratic attitude toward students in comparison with the trainee-teachers, as was hypothesized. For the liberal-democratic attitude of TATS, the mean and standard deviation scores of the experienced teachers were 27.88 and 3.41 respectively. In comparison, the mean and standard deviation scores of the trainee-teachers were 29.89 and 3.85 respectively. An independent samples t-test yielded the following result: t (144) = -3.29, $p < 0.001$. It meant that the trainee-teachers displayed a more liberal and democratic attitude toward students in comparison with the experienced teachers, as was hypothesized. These results attested to the construct validity of the TATS scale.

Discussion

The aim of this study was to develop a reliable and valid scale for measuring teachers' attitudes toward students. Based on a comprehensive review of the theoretical literature, the TATS scale was developed, which consisted of two sets of items. One measured the conservative-autocratic attitude of teachers toward students, while the other measured the liberal-democratic attitude of teachers toward students. A study was conducted to assess the psychometric properties of the TATS scale. It was found to possess internal reliability, as well as to display a clear factor structure. In addition, its convergent validity with an established scale measuring personal values was established. Finally, it was found that experienced teachers were more conservative and autocratic toward students, while trainee-teachers were more liberal and democratic.

With regard to the findings on mean differences between the two groups

of respondents, it is interesting to note that there is no substantial difference between the scores on the two attitude scales of the experienced teachers (conservative-autocratic score = 27.94; liberal-democratic score = 27.88). In contrast, the scores on the two attitude scales of the trainee-teachers differ substantially (conservative-autocratic score = 26.09; liberal-democratic score = 29.89). A repeated-measures analysis on these two sets of scores indicated that this difference is significantly different from zero: $t\,(80) = 4.9, p < 0.0001$.

I did not anticipate the lack of significant difference between these two scores of the experienced teachers on the one hand, as well as the extremely high significant difference between these two scores of the trainee-teachers on the other hand. A *post hoc* explanation is this: a trainee-teacher begins with an idealistic image of the enthusiastic educator who infuses his or her students with the spirit of *carpe diem* (seize the day), much like Mr. Keating in the acclaimed Hollywood movie *Dead Poets' Society*. Unfortunately, the experience of a full-fledged teacher in an extremely competitive and performance-oriented educational system (the "pressure-breed-pressure" phenomenon) takes a toll on this idealistic image of the enthusiastic educator. I must emphasize that this is only a *post hoc* explanation, and to ascertain its validity, a longitudinal study would need to be carried out, in which the two types of teaching attitudes are traced across time for a sample of respondents who moved from being a trainee-teacher with relatively little pressure to an experienced teacher facing a lot of pressure in an extremely competitive and performance-oriented educational system.

Given these significant results, a question arises: how can this new scale be utilized in future research? There are two ways to use this new scale. Firstly, at present, the TATS scale lacks external validation, so more empirical studies need to be conducted to establish its external validity on a firmer basis. One validation study is to compare teachers' subjective responses in the TATS scale to their actual behaviors in class, as assessed by independent raters. A match between the subjective responses and the authentic behaviors of the teachers will indicate that the TATS scale possesses exter-

nal validity. Another validation study is to investigate students' perception of the style of instruction of their teacher in class. If there is a match between the students' perception and the teacher's scores on the TATS scale, this will again indicate that the scale possesses external validity.

Besides conducting more studies to establish the external validity of the TATS scale, it can also be utilized in research that examines the relationship between teachers' attitudes toward students and other psychological variables. For example, we can examine the issue of how different teachers promote or inhibit creativity in the classroom. This issue can be tackled from the self-determination perspective; i.e., liberal-democratic teachers nurture a learning environment which supports the autonomy of students, and encourages them to adopt a mastery goal (Dweck, 1986). In turn, students engage in task-involved and creative behavior. In contrast, conservative-autocratic teachers nurture a learning environment which restricts the autonomy of students, and encourages them to adopt a performance goal. In turn, students engage in ego-involved and conforming behavior (Ng, 2001b). Another promising area of research is to look at how the culture of teachers shapes their attitudes toward students. In particular, teachers who belong to a collectivistic culture are likely to be more conservative and autocratic toward students, while teachers who belong to an individualistic culture are likely to be more liberal and democratic toward students. Presently, I am conducting a study using the TATS scale to look at the cultural aspects of promoting creativity in the classroom. The initial results are encouraging.

In conclusion, I hope that the development and validation of this new scale on measuring teachers' attitudes toward students, and the suggestions I have made on how the TATS scale can be utilized in future research will result in burgeoning research in this promising area of study.

References

Anastasi, A. (1998). *Psychological testing* (6th ed.). New York: Macmillan.

Biggs, J. B., & Moore, P. J. (1993). *The process of learning* (3rd ed.). New York:

Prentice Hall.

Deci, E. L., Spiegel, N. H., Ryan, R. M., Koestner, R., & Kauffman, M. (1982). The effects of performance standards on teaching styles: The behavior of controlling teachers. *Journal of Educational Psychology, 74*, 852–859.

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*(10), 1040–1048.

Kerlinger, F. N. (1984). *Liberalism and conservatism: The nature and structure of social attitudes*. Hillsdale, NJ: Lawrence Erlbaum Associates.

McGregor, D. (1960). *The human side of enterprise*. New York: McGraw-Hill.

Ng, A. K. (2001a). *Why Asians are less creative than Westerners*. Singapore: Prentice Hall.

Ng, A. K. (2001b, June). *Cultural influences on task-involved/creative behavior and ego-involved/conforming behavior: Two theoretical models*. Paper presented at the Second International Symposium on Child Development, Hong Kong Baptist University, Hong Kong.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

Reeve, J. (1996). *Motivating others: Nurturing inner motivational resources*. Needham Heights, MA: Allyn & Bacon.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality, 63*(3), 397–427.

Ryan, R. M., & Guardia, J. G. L. (1999). Achievement motivation within a pressured society: Intrinsic and extrinsic motivations to learn and the politics of school reform. *Advances in Motivation and Achievement, 11*, 45–85.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in twenty countries. *Journal of Experimental Social Psychology, 28*, 1–65.

Watt, J. (1989). *Individualism and educational theory*. Dordrecht, The Netherlands: Kluwer Academic Publishers.

Zelina, M., Bohonyova, M., & Alberty, L. (1996). Creativity, humanization and interaction styles in education. *Studia Psychologica, 38*(4), 215–223.