

Differences in Achievement Motivation and Academic and Social Self-concept in Gifted Students of Higher Education

María Dolores Valadez Sierra¹, Angel Alberto Valdés Cuervo^{2,*}, Teodoro Rafael Wendlandt Amezaga³, Ana Carolina Reyes Sánchez², Rogelio Zambrano Guzmán¹ & Juan Pedro Navarro Agraz⁴

¹Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara, Guadalajara, México

²Department of Education, Instituto Tecnológico de Sonora, Ciudad Obregón, Sonora, México

³Department of Management, Instituto Tecnológico de Sonora, Ciudad Obregón, Sonora, México

⁴Department of Languages, Universidad de Sonora, Hermosillo, Sonora, México

*Corresponding author: Department of Education, Instituto Tecnológico de Sonora, Calle 5 de Febrero, No. 818 Sur, C.P. 85000, Ciudad Obregón, Sonora, México. Tel: 52-(644)-410-9000, ext. 2420. E-mail: angel.valdes@itson.edu.mx

Received: January 12, 2015 Accepted: March 3, 2015 Online Published: March 9, 2015

doi:10.5430/jct.v4n1p83 URL: <http://dx.doi.org/10.5430/jct.v4n1p83>

Abstract

The purpose of this study is to identify groups of gifted university students that differ in their self-concept and achievement motivation. For this, 80 students who achieved scores of the 95th percentile or higher in the Raven's Progressive Matrices test were selected. Two groups were identified in terms of their social self-concept and the competitiveness-oriented achievement motivation variables. The first group (*Protected*) gathered 51 (63.7%) gifted students who exhibited high levels of social self-concept and a low level of competitiveness-oriented achievement motivation with respect to the second group (*At-risk*), which gathered 29 (36.3%) gifted students. It was concluded that *Protected* students possess affective resources that strengthen their social and academic development, whereas *At-risk* students' variables represent vulnerability factors.

Keywords: *affective resources; academic self-concept; social self-concept; achievement motivation*

1. Introduction

Equity in education is achieved when the social, cultural and material conditions necessary for all students to reach an appropriate educational level to their learning potential are facilitated (Latin American Lab in Evaluation of Educational Quality [Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación], 1997; Schmelkes, 1996; Zúñiga, 2007). Actions aimed at achieving educational equity in Mexico focus on students with social, cultural, economic and cognitive vulnerabilities, with some degree of negligence for students who require special support by virtue of their high intellectual capabilities (Sánchez & Ramírez, 2013; Yáñez & Valdés, 2012).

Coverage of educational services for gifted students in Mexico is limited. The Secretariat of Public Education (Secretaría de Educación Pública [SEP]) reported that 165,865 gifted students were attended in 2012 which is about 22% of their potential population (Acle, 2013). Apart from this limited coverage, other factors affect the attention for gifted students, such as: (a) low stringency in the identification process, (b) lack of systematicity in care practices, (c) care is focused almost exclusively on primary education, and (d) scarce research on the topic (Cortés, 2010; Sánchez & Ramírez, 2013; Valadez et al., 2014; Valdés, Arreola, & Montoya, 2012).

Care for gifted students in Mexico remains limited despite the interest and increasing investment in supporting the improvement of these students in developed countries, where they are acknowledged as a valuable resource for the upbringing of human capital and for the economic development based on knowledge opportunities (Huggins & Izushi, 2007; Organization for Economic Co-operation and Development [OCDE], 2007; Romer, 1990).

Gifted students' potential is associated with certain characteristics that distinguish them, such as: (a) intelligence well above the average, (b) speed and quality of learning processes, (c) efficient cognitive self-regulation, (d) high

motivation to learn, and (e) high creativity (Alonso, 2003; Robinson & Clinkenbeard, 2008; Shore & Kanevsky, 1993). While their skills ease their talent development, this process can be either favored or hindered by their socioemotional and educational contexts, family and social factors involved in the configuration of their exceptional intellectual condition (Gagné, 2012; Plucker & Stocking, 2001; Richards, Encel, & Shute, 2003).

Having said that, the analysis of gifted students' development must consider the principle of unity of the cognitive, affective and social processes (Vygostky, 1980). From this perspective, research and intervention must consider the complex interactions between the cognitive and affective processes and the social context where gifted students perform, which make each student a unique individual beyond the similarities they may have with others who share this condition of exceptionality (Eddles-Hirsch, Vialle, McCormick, & Rogers, 2012; Gagné, 2012; Renzulli & Reis, 2013).

Several studies show the importance of emotional functioning in gifted students' cognitive development (Richards et al., 2003; Plucker & Stocking, 2001). These emotional configurations can become resources for fostering talent development, like increased persistence in academic tasks and better self-regulation of learning processes (Rubenstein, Siegle, Reis, McCoach, & Burton, 2012; Zúñiga, 2007).

Achievement motivation, an important emotional element for gifted students' talent development, is associated with a greater effort in achieving success in academic tasks (Byrne & Shavelson, 1996; Clemons, 2008; Pfeiffer, Petscher, & Kumtepe, 2008; Tang & Neber, 2008) as well as the involvement in those academic tasks which entail higher levels of challenge and intellectual effort (Al-Shabatat, Abbas, & Ismail, 2010; Blumen, 2008; Banks & Woolfson, 2008; Lau, Liem, & Nie, 2008). This type of motivation can be directed in turn by two different factors: (a) competitiveness, causes increased interest and effort in the student to make evident that he has better academic skills than his peers, and (b) mastery, which involves a high commitment in mastering what is being learned, preference for intellectually challenging tasks and the pursuit of perfection in their completion (Albaili, 2003; Fletcher & Speirs Neumeister, 2012; Valdés, Urías, Torres, Carlos, & Montoya, 2012).

It should be noted that achievement motivation is more effective for learning when it is guided by mastery, as it is associated with greater self-regulation and the use of deep learning strategies, which are in turn related to a better understanding and greater cognitive efforts (Graham & Golan, 1991; Schunk, 1997; Trigwell, Ashwin, & Millan, 2013).

Self-concept, the second emotional variable in this study, is a multidimensional construct that comprises the individual's visualization of himself and his skills to function in the personal, social, family and professional scope (Byrne & Shavelson, 1996; Esnaola, Goñi, & Madariaga, 2008; Gómez-Vela, Verdugo, & González-Gil, 2007; Javeed, 2012). Due to its relevance on the individual's development this study addresses the academic and social self-concepts in a particular way.

Academic self-concept refers to the individual's perception about his or her ability to perform in school activities that involve cognitive aspects (McInerney, Cheng, Mok, & Lam, 2012; Véliz & Apodaca, 2012a). Research into this construct evidence that high academic self-concept is related to better academic performance (Ghazvini, 2011; Wouters, Germeijs, Colpin, & Verschueren, 2011).

On the other hand, social self-concept is the individual's perception in regards to his or her competence to establish social relationships (Goñi & Fernández, 2007). This construct is related to the social acceptance achieved by the individual and with the quality of his interpersonal relationships (Norman, Ramsay, Roberts, & Martray, 2000). Notably, the findings in this regard have been contradictory on gifted students, while some authors note that social self-concept is lower in gifted students when compared with average students' (Silverman, 1990; Winne, Woodlands, & Wong, 1982), others report no difference between the two groups of students or even that social self-concept is better in gifted students (Colangelo, Kelly, & Schrepfer, 1987; Norman et al., 2000; Kelly & Jordan, 1990).

To address the importance of emotional factors in the academic and personal development of gifted students, the aim of this study was to identify different groups among gifted university students in terms of their achievement motivation and their academic and social self-concepts to learn if these emotional factors can act as resources that foster academic and personal development.

The following question was the starting point for this research: Can achievement motivation and academic and social self-concepts help identify different groups among gifted university students?

It was hypothesized that there are groups among gifted university students with different profiles regarding their self-concept and achievement motivation.

2. Method

2.1 Participants

The measurement scale from the Raven's Progressive Matrices test was administered to 558 freshmen students of all careers of Health Sciences at a University in the center of Mexico. Subsequently, 80 students were identified as gifted for obtaining scores of the 95th percentile or higher on the test.

The mean age of these gifted students was 18.3 (SD = 1.7 years), of which 43 (54%) were female and 37 (46%) were male. Most of them (72%) came from public high schools and their most frequently chosen careers at university were Psychology (39.3%) and Medicine (39.3%).

2.2 Measures

2.2.1 Academic Self-Concept Sub-Scale (Shavelson, Hubner, & Stanton, 1976)

It consisted of seven items (e.g.: I feel comfortable with people of my age). It was answered with a five point Likert-type scale, ranging from 1 (never) to 5 (always). The Cronbach's Alpha resulting reliability coefficient was 0.71.

2.2.2 Social Self-Concept Sub-Scale (Shavelson, Hubner, & Stanton, 1976)

It consisted of four items (e.g.: I feel comfortable with people of my age). It was answered with a five point Likert-type scale, ranging from 1 (never) to 5 (always). The resulting reliability coefficient was 0.72.

2.2.3 Achievement Motivation Scale (Valdés et al., 2012)

The scale consisted of 17 items, grouped in two dimensions: achievement motivation associated with competitiveness, which evaluates the interest in outrivaling peers in academic performance (e.g.: I dislike others being better than me in a subject-matter), and achievement motivation associated with mastery, in which the tendency to get involved in challenging academic tasks and performance perfection is measured (e.g.: I am satisfied only until my tasks are well done).

Both subscales were answered using a five point Likert-type scale, ranging from 1 (never) to 5 (always). The reliability for both sub-scales measured with Cronbach's Alpha was 0.90 for the competition dimension and 0.83 for the mastery dimension.

2.3 Procedure

In order to collect the data, an informed consent was obtained from the institution's managers and teachers. Afterwards, the students' voluntary participation was requested guaranteeing complete confidentiality.

The non-hierarchical cluster analysis technique *K-means* and univariate statistical inferentials were employed for the analysis, supported by the use of the Statistical Package for Social Sciences –software- (SPSS, Version 21).

3. Results

The study results show that social self-concept and competitiveness-oriented achievement motivation significantly distinguish two groups. The first group (Protected) consisted of 51 (63.7%) gifted students who possessed high social and academic self-concepts, high mastery-oriented achievement motivation and low competitiveness-oriented achievement motivation. The second group (At-risk) consisted of 29 (36.3%) gifted students who presented high academic and social self-concept, and high competitiveness-oriented and mastery-oriented achievement motivations.

It is interesting to note that gifted students of the first group obtained a lower competitiveness-oriented achievement motivation and a higher social self-concept in comparison to the second group (see Table 1).

Table 1. Between-groups Differences for Achievement Motivation and Self-concept measures

	Protected (<i>n</i> = 51)		At-risk (<i>n</i> = 29)		<i>F</i> (3, 77)	<i>p</i>
	<i>M</i>	<i>DS</i>	<i>M</i>	<i>DS</i>		
Competitiveness-oriented Achievement Motivation	1.51	.48	3.26	.45	144.06	<. 001
Social Self-concept	4.36	.55	3.75	.75	5.072	.026
Mastery-oriented Achievement Motivation	4.34	.47	4.01	.48	3.053	.086
Academic Self-concept	3.97	.48	3.90	.63	.285	.595

p < .01.

3.1 Groups Comparison Regarding Gender

By means of a χ^2 test, it was found that in the group named *Protected* the proportion of women is higher than men, contrary to what happens in *At-risk* where the men are greater in number (see Table 2).

Table 2. Prevalence of Groups in Male students (n = 37) and Female Students (n = 43)

Groups	Male students		Female students		$\chi^2(1)$
	n	%	n	%	
Protected	16	28.5	35	62.5	5.769**
At-risk	21	72.4	8	27.6	4.525**

* $p < .05$. ** $p < .01$.

4. Conclusions

Gifted students can be classified in two groups with different profiles regarding their social self-concept and their competitiveness-oriented achievement motivation. This provides additional evidence for studies that point out that gifted students do not constitute a group with similar characteristics in the various aspects of homogeneous development (Rimm, 2008; Valdés, Sánchez, & Yáñez, 2013).

Students from the protected group, who constitute the majority, have affective resources that are related to a better academic development and an increased personal well-being (Bain & Bell, 2004; Neihart, Reis, Robinson, & Moon, 2002). These results are similar to the findings in other studies that report that gifted students, as a group, show an adequate emotional development (Greene, 2003; Reis & Renzulli, 2004).

Furthermore, it was noted that students from the at-risk group display emotional characteristics that put their personal and academic development vulnerable like a low social self-concept, which is associated with difficulties in personal adjustment, social integration, and a decrease in social well-being (Fuentes, García, Gracia, & Lila, 2011; Garalgordobil & Durá, 2006; Veliz & Apodaca, 2012b). Another risky aspect in this group is the high levels of competitiveness-oriented achievement motivation, which could negatively affect effective study due to the use of superficial learning strategies (Graham & Golan, 1991; Schunk, 1997; Trigwell et al., 2012).

A relevant finding in this study was that the group which had better psychological resources had a larger proportion of females than the other group. Even though this study does not allow precise conclusions in this regard, it is suggested that this finding provides evidence that academic achievements during high-school are not fully valued as a criteria of social success by male students (Valdés, Sánchez, & Yáñez, 2013).

The findings in this research confirm the existence of differences in emotional development among gifted university students, and also show the importance of studying this aspect in the development of care programs for gifted students.

Finally, it is necessary to point out the limitations of this research due to its basically descriptive approach, which does not prove its hypothesis regarding the origin of the differences found in the emotional development of students from both groups, which could be suggested for later studies.

References

- Acle, G. (2013). Investigación en educación especial (2002-2011): logros y desafíos [Research in special education (2002-2011): achievements and challenges]. In M. Agüero (Ed.), *Aprendizaje y desarrollo 2002-2011* (pp. 21-110). México: COMIE/ANUIES.
- Albaili, M. (2003). Motivational goals orientations of intellectually gifted achieving and underachieving students in the United Arab Emirates. *Social Behavior and Personality*, 31(2), 107-120. Retrieved from <http://www.sbp-journal.com/index.php/sbp/article/view/1236>
- Alonso, J. (2003). *Educación de los alumnos con sobredotación intelectual* [Education of students with intellectual giftedness]. España: Centro Huerta del Rey. Retrieved from <http://www.centrohuertadelrey.com/files/upload/articulos/educaciondelosalumnos.pdf>
- Al-Shabatat, A. M., Abbas, M., & Ismail, H. N. (2010). The direct and indirect effects of the achievement motivation on nurturing intellectual giftedness. *International Scholarly and Scientific Research & Innovation*, 4(7), 312-320. Retrieved from

- <http://internationalscienceindex.org/publications/8491/the-direct-and-indirect-effects-of-the-achievement-motivation-on-nurturing-intellectual-giftedness>
- Bain, S. K., & Bell, S. M. (2004). Social Self-Concept, Social Attributions, and Peer Relationships in Fourth, Fifth, and Sixth Graders Who Are Gifted Compared to High Achievers. *Gifted Child Quarterly*, 48(3), 167-178. <http://dx.doi.org/10.1177/001698620404800302>
- Banks, M., & Woolfson, L. (2008). Why do students think they fail? The relationship between attributions and academic self-perceptions. *British Journal of Special Education*, 35(1), 49-56. <http://dx.doi.org/10.1111/j.1467-8578.2008.00369.x>
- Blumen, S. (2008). Motivación, sobredotación y talento: un desafío para el éxito [Motivation, giftedness and talent: a challenge to success]. *Revista de Psicología*, 26(1), 147-184. Retrieved from <http://pepsic.bvsalud.org/pdf/rp/v26n1/v26n1a08.pdf>
- Byrne, B., & Shavelson, R. (1996). On the structure of social self-concept for pre-, early, and late adolescents: A test of the Shavelson, Hubner, and Stanton (1976) model. *Journal of Personality and Social Psychology*, 70(3), 599-613. <http://dx.doi.org/10.1037/0022-3514.70.3.599>
- Clemons, T. L. (2008). *Underachieving gifted students: A social cognitive model* (RM08234). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut. Retrieved from <http://www.gifted.uconn.edu/nrcgt/reports/rm08234/rm08234.pdf>
- Colangelo, N., Kelly, K. R., & Schrepfer, R. M. (1987). A Comparison of Gifted, General, and Special Learning Needs Students on Academic and Social Self-Concept. *Journal of Counseling & Development*, 66(2), 73-77. <http://dx.doi.org/10.1002/j.1556-6676.1987.tb00802.x>
- Cortés, L. (2010). *Hacia una política pública de educación de talentos: el caso de México* [Toward a public policy on education of talents: the case of Mexico] (Unpublished master's thesis), Facultad Latinoamericana de Ciencias Sociales (FLACSO), México. Retrieve from <http://bibdigital.flacso.edu.mx:8080/dspace/handle/123456789/861>
- Eddles-Hirsch, K., Vialle, W., McCormick, J., & Rogers, K. (2012). Insiders or Outsiders: The Role of Social Context in the Peer Relations of Gifted Students. *Roeper Review*, 34(1), 53-62. <http://dx.doi.org/10.1080/02783193.2012.627554>
- Esnaola, I., Goñi, A., & Madariaga, J. M. (2008). El autoconcepto: perspectivas de investigación [Self-concept: research's issues]. *Revista de Psicodidáctica*, 13(1), 69-96. Retrieved from <http://www.ehu.es/ojs/index.php/psicodidactica/article/view/231/227>
- Fletcher, K. L., & Speirs Neumeister, K. L. (2012). Research on perfectionism and achievement motivation: implications for gifted students. *Psychology in the Schools*, 49(7), 668-677. <http://dx.doi.org/10.1002/pits.21623>
- Fuentes, M. C., García, J. F., Gracia, E., & Lila, M. (2011). Autoconcepto y ajuste psicosocial en la adolescencia [Self-concept and psychosocial adjustment during adolescence]. *Psicothema*, 23(1), 7-12. Retrieved from <http://www.psicothema.com/pdf/3842.pdf>
- Gagné, F. (2012). Construyendo el talento a partir de la dotación: Breve revisión del MDDT 2.0. [Constructing the talent from the endowment: Brief review of the MDDT 2.0] In M. Valadez, J. Betancourt & M. Zavala (Eds.), *Alumnos superdotados y talentosos. Identificación, evaluación e intervención. Una perspectiva para docentes* (pp. 45-54) (2^{da} ed.). México: Manual Moderno.
- Garalgordobil, M., & Durá, A. (2006). Relaciones del autoconcepto y la autoestima con la sociabilidad, estabilidad emocional y responsabilidad en adolescentes de 14 a 17 años [Relations of the self-concept and self-esteem with sociability, emotional stability and responsibility in adolescents aged 14 to 17 years]. *Análisis y Modificación de Conducta*, 32(141), 37-64.
- Ghazvini, S. D. (2011). Relationships between academic self-concept and academic performance in high school students. *Procedia - Social and Behavioral Sciences*, 15, 1034-1039. <http://dx.doi.org/10.1016/j.sbspro.2011.03.235>
- Gómez-Vela, M., Verdugo, M.-Á., & González-Gil, F. (2007). Calidad de vida y autoconcepto en adolescentes con necesidades educativas especiales y sin ellas [Quality of life and self-concept in adolescents with and without special educational needs]. *Infancia y Aprendizaje*, 30(4), 523-536. <http://dx.doi.org/10.1174/021037007782334300>

- Goñi, E., & Fernández, A. (2007). Los dominios social y personal del autoconcepto [Social and personal domains of the self-concept]. *Revista de Psicodidáctica*, 12(2), 179-194.
- Graham, S., & Golan, S. (1991). Motivational influences on cognition: Task involvement, ego involvement, and depth information processing. *Journal of Educational Psychology*, 83(2), 187-194. <http://dx.doi.org/10.1037/0022-0663.83.2.187>
- Greene, M. J. (2003). *Gifted adolescent social and emotional development: Teacher perceptions and practices* (Doctoral dissertation, University of Connecticut). Retrieved from <http://digitalcommons.uconn.edu/dissertations/AAI3095831/>
- Huggins, R. A., & Izushi, H. (2007). *Competing for knowledge: creating, connecting and growing*. London: Routledge.
- Kelly, K. R., & Jordan, L. K. (1990). Effects of Academic Achievement and Gender on Academic and Social Self-Concept: A Replication Study. *Journal of Counseling & Development*, 69(2), 173-177. <http://dx.doi.org/10.1002/j.1556-6676.1990.tb01481.x>
- Latin American Lab in Evaluation of Educational Quality (1997). *Marco Conceptual del LLECE* [Conceptual framework of the LLECE]. Santiago de Chile: Oficina Regional de Educación para América Latina y el Caribe (OREALC)/UNESCO. Retrieved from <http://www.unesco.org/new/es/santiago/education/education-assessment/>
- Lau, S., Liem, A. D., & Nie, Y. (2008). Task- and self-related pathways to deep learning: The mediating role of achievement goals, classroom attentiveness, and group participation. *British Journal of Educational Psychology*, 78(4), 639-662. <http://dx.doi.org/10.1348/000709907X270261>
- McInerney, D. M., Cheng, R. W.-y., Mok, M. M. C., & Lam, A. K. H. (2012). Academic Self-Concept and Learning Strategies: Direction of Effect on Student Academic Achievement. *Journal of Advanced Academics*, 23(3), 249-269. <http://dx.doi.org/10.1177/1932202x12451020>
- Neihart, M. E., Reis, S. M., Robinson, N. M., & Moon, S. M. (2002). *The social and emotional development of gifted children: What do we know?* Waco, Texas, United States: Prufrock Press.
- Norman, A. D., Ramsay, S. G., Roberts, J. L., & Martray, C. R. (2000). Effect of social setting, self - concept, and relative age on the social status of moderately and highly gifted students. *Roeper Review*, 23(1), 34-39. <http://dx.doi.org/10.1080/02783190009554059>
- Organization for Economic Co-operation and Development (2007). *Higher education and regions. Global competitive, locally engaged*. France: OCDE.
- Pfeiffer, S. I., Petscher, Y., & Kumtepe, A. (2008). The Gifted Rating Scales-School Form: A Validation Study Based on Age, Gender, and Race. *Roeper Review*, 30(2), 140-146. <http://dx.doi.org/10.1080/02783190801955418>
- Plucker, J. A., & Stocking, V. B. (2001). Looking outside and inside self-concept development of gifted adolescent. *Exceptional Children*, 67(4), 535-548. Retrieved from <http://www.mv.helsinki.fi/home/hotulain/ErityinenVahvuus/Plucker.pdf>
- Reis, S. M., & Renzulli, J. S. (2004). Current research on the social and emotional development of gifted and talented students: Good new and futures possibilities. *Psychology in the Schools*, 41(1), 119-130. <http://dx.doi.org/10.1002/pits.10144>
- Renzulli, J. S., & Reis, S. M. (2013). The school wide enrichment model: a focus on student's creative productivity, strengths and interests. In En C. Callahan & H. Hettberg (Eds.), *Fundamentals of gifted education: considering multiple perspective* (pp.199-210). Nueva York: Routledge.
- Richards, J., Encel, J., & Shute, R. (2003). The emotional and behavioural adjustment of intellectually gifted adolescents: a multi-dimensional, multi-informant approach. *High Ability Studies*, 14(2), 153-164. <http://dx.doi.org/10.1080/1359813032000163889>
- Rimm, S. (2008). Underachievement Syndrome: A Psychological Defensive Pattern. In S. Pfeiffer (Ed.), *Handbook of Giftedness in Children* (pp. 139-160). New York: Springer US. http://dx.doi.org/10.1007/978-0-387-74401-8_8
- Robinson, A., & Clinkenbeard, P. (2008). History of Giftedness: Perspectives from the Past Presage Modern Scholarship. In S. Pfeiffer (Ed.), *Handbook of Giftedness in Children* (pp. 13-31). New York, United States: Springer Inc.

- Romer, P. M. (1990). Endogenous Technological Change. *Journal Political Economy*, 98(5, pt.2), 71-102. Retrieved from <http://www.jstor.org/stable/2937632>
- Rubenstein, L. D., Siegle, D., Reis, S. M., McCoach, D. B., & Burton, M. G. (2012). A Complex quest: The development and research of underachievement interventions for gifted students. *Psychology in the Schools*, 49(7), 678-694. <http://dx.doi.org/10.1002/pits.21620>
- Sánchez, P., & Ramírez, K. (2013). Talent development in Mexico: Challenges and opportunities. In P. Sánchez (Ed.), *Talent development around the world* (pp. 253-270). México: UADY. Retrieved from <http://www.cpti.com.mx/publicaciones/LIBRO.pdf>
- Schmelkes, S. (1996). *La evaluación de los centros escolares* [The evaluation of the school centers]. México: SEP. Retrieved from http://www.setab.gob.mx/php/documentos/tecte13-14/Eval_%20CentEsc.pdf
- Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-Concept: Validation of Construct Interpretations. *Review of Educational Research*, 46(3), 407-441. <http://dx.doi.org/10.3102/00346543046003407>
- Shore, B. M., & Kanevsky, L. S. (1993). Thinking Processes: Being and Becoming Gifted. In K. Heller, F. Monks & A. Passow (Eds.), *International handbook research and development of giftedness and talent* (pp.137-147). England: Pergamon Press.
- Shunk, D. H. (1997). *Teorías del aprendizaje* [Theories of learning] (2nd ed.). México: Pearson Educación.
- Silverman, L. K. (1990). Social and emotional education of the gifted: The discoveries of Leta Hollingworth. *Roeper Review*, 12(3), 171-178. <http://dx.doi.org/10.1080/02783199009553265>
- Javeed, Q. S. (2012). A Study of Loneliness and Self-Concept of Male and Female Adolescents. *Indian Streams Research Journal*, 2(4), 1-14. Retrieved from <http://isrj.org/Default.aspx#>
- Tang, M., & Neber, H. (2008). Motivation and self - regulated science learning in high - achieving students: differences related to nation, gender, and grade - level. *High Ability Studies*, 19(2), 103-116. <http://dx.doi.org/10.1080/13598130802503959>
- Trigwell, K., Ashwin, P., & Millan, E. S. (2013). Evoked prior learning experience and approach to learning as predictors of academic achievement. *British Journal of Educational Psychology*, 83(3), 363-378. <http://dx.doi.org/10.1111/j.2044-8279.2012.02066.x>
- Valadez, M., Valdés, A., Galán, M., López-Aymes, G., Wendlandt, T., & Reyes, C. (2014). Analysis of the scientific production of Mexican researchers on the topic of gifted student. *Paper in evaluation*.
- Valdés, A., Arreola, C., & Montoya, G. (2012). Estado del arte de la investigación acerca de estudiantes con aptitudes sobresalientes en México [State of the art of research on students with outstanding aptitudes in Mexico]. In A. Valdés & J. Vera (Eds.), *Estudiantes intelectualmente sobresalientes* (pp.156-170). Distrito Federal, México: Pearson.
- Valdés, A., Sánchez, P., & Yáñez, A. (2013). Perfiles de estudiantes mexicanos con aptitudes intelectuales sobresalientes [Psychological profiles of Mexican gifted students]. *Acta Colombiana de Psicología*, 16(1), 25-33.
- Valdés, A., Urías, M., Torres, G., Carlos, E., & Montoya, G. (2012). Propiedades psicométricas de un instrumento para medir motivación de logro en adolescentes con aptitudes sobresalientes [Psychometric properties of an instrument to measure achievement motivation in adolescents with outstanding aptitudes]. In R. Pizá, L. Gassós & González, M. (Eds.), *Proyectos de investigación de los Cuerpos Académicos del ITSON* (pp. 211-219). México: ITSON.
- Véliz, A., & Apodaca, P. (2012a). Dimensiones del autoconcepto de estudiantes chilenos: un estudio psicométrico [Dimensions of self-concept of Chilean students: a psychometric study]. *Revista Educativa Hekademos*, 11(5), 47-58. Retrieved from <http://dialnet.unirioja.es/servlet/articulo?codigo=4059766>
- Véliz, A., & Apodaca, P. (2012b). Niveles de autoconcepto, autoeficacia académica y bienestar psicológico en estudiantes universitarios de la ciudad de Temuco [Level of self-concept, academic self-efficacy and psychological well-being of university students of Temuco city]. *Salud y Sociedad*, 3(2), 131-150. Retrieved from <http://dialnet.unirioja.es/servlet/articulo?codigo=3993052>
- Vygostky, L. S. (1980). *Mind in Society: The Development of Higher Psychological Processes*. USA: Harvard University Press.

- Winne, P. H., Woodlands, M. J., & Wong, B. Y. L. (1982). Comparability of Self-Concept Among Learning Disabled, Normal, and Gifted Students. *Journal of Learning Disabilities*, 15(8), 470-475. <http://dx.doi.org/10.1177/002221948201500805>
- Wouters, S., Germeijs, V., Colpin, H., & Verschueren, K. (2011). Academic self-concept in high school: Predictors and effects on adjustment in higher education. *Scandinavian Journal of Psychology*, 52(6), 586-594. <http://dx.doi.org/10.1111/j.1467-9450.2011.00905.x>
- Yáñez, A., & Valdés, A. (2012). Políticas públicas y modelos para la identificación y atención de estudiantes sobresalientes en México [Public policies and models for identification and care of outstanding students in Mexico]. In A. Valdés & J. Vera (Eds.), *Estudiantes intelectualmente sobresalientes* (pp. 141-156). México: Pearson.
- Zúñiga, M. (2007). Análisis de la propuesta de atención para alumnos sobresalientes en el Estado de Hidalgo [Analysis of the proposal of attention to outstanding students in the State of Hidalgo] (Unpublished doctoral dissertation, Universidad Autónoma del Estado de Hidalgo). Retrieved from http://www.uaeh.edu.mx/nuestro_alumnado/icshu/doctorado/documentos/Analisis%20de%20la%20propuesta%20de%20atencion.pdf